

ADDENDUM VOLUME

B-891

DAVIS, HICKS & O'BRIEN LIMITED

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DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'A'



Ontario

Ministry
of the
Environment

For Office Use
Application Number

APPLICATION FOR A CERTIFICATE OF APPROVAL
FOR A WASTE DISPOSAL SITE (LANDFILL)

IMPORTANT NOTE:

If this application is for notification of changes in use, operations, or ownership, specify the MOE number on your certificate _____ and fill in only the data on this form which are being revised.

1. Applicant:

Municipal () Provincial () Other (x) Private

Name: National Sewer Pipe Limited

Address: 2700 Lakeshore Road West (P.O. Box 1800) Postal Code: L6J 5C7

City/Prov.: Mississauga, Ontario (Oakville, Ont) Telephone: 822-7900

If Applicant not Municipal or Provincial complete the following:

() Proprietorship
Name, if different than applicant: _____ () Corporation: President's Name: Ryland J. New

() Partnership - Name all partners:
(i) _____ (ii) _____

2. Land Owner: (if not applicant)

Name: _____

Address: _____

3. Lessee (if applicable)

Name: _____

Address: _____

4. Site Operator

Name: National Sewer Pipe Limited Title: Owner

Address: 2700 Lakeshore Road West, Mississauga, Ontario

5. Site Location:

City	(x)	Concession:	Former Township of <u>East Flamborough</u>
Town	()	Name:	<u>Burlington</u>
Village	()	Lot No:	_____
Township	()	Part of Lot:	<u>2 & 3 Con. 1, 3 Con. 2</u>
Other	<u>Regional Municipality of Halton</u>	Street Address:	<u>North Service</u>
		Road	_____

Include a copy of the plan of survey of any lands on which the site is to be located.
(Property Description attached)

8. Control System

- a. Monitoring for - Gas ☒ Yes ☐ No - Ground Water ☒ Yes ☐ No - Surface Water ☒ Yes ☐ No
- b. Control system for - Gas ☐ Yes ☒ No - Gas utilization ☐ Yes ☒ No - Leachate ☒ Yes ☐ No

9. List all Supporting Documents Submitted with this Application.

Proctor & Redfern Limited 1) Design Report (including 1 roll of drawings)

2) Environmental Appraisal Report

3) National Sewer Pipe Property Description

Morrison & Beatty Ltd. 1) Phase I Hydrogeologic Investigation July 1979

2) Phase II Hydrogeologic Investigation June, 1980

3) Phase III Hydrogeologic Investigation November 1981

10. Signature

Applicant Name (Printed)

Ryland J. New

Title

President - National Sewer Pipe Ltd.

(Signature)

Date

13 April, 1982

SEAL OF COMPANY
(if applicable)

NATIONAL SEWER PIPE LTD.

PROPERTY DESCRIPTION

ALL AND SINGULAR those certain parcels or tracts of land and premises, situate, lying and being in the City of Burlington, in the Regional Municipality of Halton, formerly in the Township of East Flamborough, County of Halton, and the Province of Ontario, being composed of part of Lots 2 and 3; Concession 1; part of Lot 3 in Concession 2; and part of the Road Allowance between Concessions 1 and 2, closed by By-Law No. 228, East Flamborough, in the said City of Burlington, and which may be more particularly described as follows:

COMMENCING at a standard iron bar in the south-eastern angle of the said Lot 3, Concession 2;

THENCE south 45 degrees, 24 minutes, 20 seconds east, 20.12 metres more or less to north-western angle of Lot 2, Concession 1;

THENCE north 44 degrees, 4 minutes, 30 seconds east along the southern limit of the road allowance between Concessions 1 and 2, 455.24 metres more or less to a point in the western limit of King Road;

THENCE south 46 degrees, 5 minutes, 40 seconds east, along the said western limit of King Road, 374.06 metres more or less to a standard iron bar;

THENCE south 22 degrees, 38 minutes, 20 seconds east 33.35 metres more or less to a standard iron bar;

THENCE south 43 degrees, 25 minutes, 10 seconds east, along a post and wire fence, 167.04 metres more or less standard iron bar planted therein;

THENCE south-westerly, following the northern limit of the North Service Road, 61.36 metres more or less to a standard iron bar;

THENCE south 37 degrees, 12 minutes, 50 seconds west, along the said North Service Road 292.38 metres more or less to a standard iron bar;

THENCE 73.37 metres more or less along the said North Service Road to a standard iron bar;

THENCE south 37 degrees, 44 minutes, 20 seconds west, along the said North Service Road 15.74 metres more or less to a standard iron bar in the western limit of said Lot 2;

THENCE south 37 degrees, 44 minutes, 20 seconds west, 13.36 metres more or less to a point in the northern limit of a Hydro Electric Power Commission easement described by Instrument 249060 H.L.;

THENCE north 69 degrees, 9 minutes east 255.67 metres more or less along the said Hydro Electric Power Commission easement to an iron bar;

THENCE north 66 degrees, 47 minutes, 50 seconds east, 253.17 metres more or less along the said Hydro Electric Power Commission easement to a standard iron bar planted in the western limit of the said Lot 3, Concession 1;

THENCE north 45 degrees, 46 minutes, 20 seconds west along the said western limit of said Lot 3, 439.77 metres more or less to a point;

THENCE north 44 degrees, 4 minutes, 30 seconds east, 24.48 metres more or less;

THENCE north 46 degrees, 13 minutes, 40 seconds west, 10.06 metres more or less to a standard iron bar;

THENCE north 46 degrees, 13 minutes, 40 seconds west, 191.59 metres more or less to a standard iron bar in the eastern limit of a Bell Canada easement described by Instrument 13264;

THENCE north 46 degrees, 13 minutes, 40 seconds west, 9.79 metres more or less to a round iron bar in western limit of the said Bell Canada easement;

THENCE north 45 degrees west, 25.93 metres more or less to a standard iron bar;

THENCE north 45 degrees west 182.78 metres more or less to a standard iron bar;

THENCE south 44 degrees, 6 minutes, 10 seconds west, 4.67 metres more or less to an iron pipe;

THENCE north 25 degrees, 12 minutes, 30 seconds west, along a post and wire fence line 15.68 metres more or less to a standard iron bar;

THENCE north 42 degrees, 54 minutes, 50 seconds west, following the said fence line, 71.75 metres more or less to an iron bar;

THENCE north 47 degrees, 9 minutes, 40 seconds east, 123.58 metres more or less to a standard iron bar;

THENCE south 62 degrees, 26 minutes east, 63.41 metres more or less;

THENCE south 41 degrees, 46 minutes east, 56.96 metres more or less;

THENCE north 54 degrees, 34 minutes east, 18.82 metres more or less to a standard iron bar;

THENCE north 54 degrees, 34 minutes east, 34.17 metres more or less to a standard iron bar planted in the western limit of the said Bell Canada easement;

THENCE north 54 degrees, 34 minutes east, 10.03 metres to a standard iron bar in the western limit the said Bell Canada easement;

THENCE north 54 degrees, 45 minutes east, 111.12 metres more or less to an iron bar;

THENCE north 55 degrees, 44 minutes, 10 seconds west, 96.47 metres more or less to an iron bar in the eastern limit of the said Bell Canada easement;

THENCE north 55 degrees, 44 minutes, 10 seconds west, 8.71 metres more or less to a standard iron bar in the western limit of the said Bell Canada easement ;

THENCE north 55 degrees, 44 minutes, 10 seconds west, 34.86 metres more or less to an iron bar;

THENCE north 55 degrees, 44 minutes, 10 seconds west, 19.79 metres more or less to a standard iron bar;

THENCE north 44 degrees, 46 minutes, 20 seconds east, along the remains of a post and wire fence, 75.26 metres more or less to an iron bar in the western limit of the said Bell Canada easement;

THENCE north 44 degrees, 46 minutes, 20 seconds east following the fence line, 11.95 metres more or less to a standard iron bar in the eastern limit of the said Bell Canada easement;

THENCE north 44 degrees, 46 minutes, 20 seconds east, following the fence line, 76.19 metres more or less to an iron bar;

THENCE north 42 degrees, 59 minutes, 50 seconds east, 65.10 metres more or less to an iron bar in the eastern limit of the said Bell Canada easement;

THENCE north 42 degrees, 56 minutes west, 10.21 metres more or less to a standard iron bar in the western limit of the said Bell Canada easement;

THENCE north 42 degrees, 56 minutes west, 11.77 metres more or less to an iron bar;

THENCE north 44 degrees, 36 minutes, 40 seconds east, 9.05 metres more or less to an iron bar;

THENCE south 45 degrees, 24 minutes east, 3.91 metres more or less along the eastern limit of the said Lot 3 to a standard iron bar in the western limit of the said Bell Canada easement;

THENCE south 45 degrees, 24 minutes east, 9.84 metres more or less along the eastern limit of the said Lot 3 to a round iron bar in the eastern limit of the said Bell Canada easement;

THENCE south 45 degrees, 24 minutes, 20 seconds east, 567.38 metres more or less to the point of commencement, containing by admeasurement, about 72.24 acres being the same more or less;

SUBJECT to a right and easement to the Bell Telephone Company of Canada as described in Instrument 13264;

DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'B'

4. Previous Application

Has an application for an amendment to the Land Use Regulation been submitted previously for this property?

☒ Yes☐ No☐ Don't KnowIf yes, indicate name of (former) applicant **National Sewer Pipe, Application revised from July 3rd, 1981****5. Size of Property**

Acres(Hectares)

70.23 hectares, 20.61 ha to be utilized for landfilling

Square Feet(Metres)

n/a**6. Existing and Proposed Land Uses**

	Existing	Proposed
Residential	☐	☐
Commercial	☐	☐
Agricultural	☐	☐
Industrial	☒ (quarry)	☐
Institutional	☐	☐
Recreational	☐	☐
Vacant	☐	☒ Sanitary Landfill Site

Further explanation if required, of the proposed use

See attached report "National Sewer Pipe Proposed Sanitary Landfill Site, Burlington, Ontario"**7. Land Severance**

Is a land severance required in connection with this property?

☐ Yes☒ No

If you have applied for severance, it is:

☐ Granted☐ Refused☐ Pending

If granted, when? _____

Further explanation if required, of the severance application

8. Plan of Subdivision (if applicable)☐ Existing☐ Proposed

Subdivision File Number _____

Further explanation if required

9. Proposed Construction Details☐ New Building(s)☐ Addition(s)

Number of storeys _____

Proposed ground floor area (sq. ft.) _____

Proposed total floor area (sq. ft.) _____

Maximum height above ground _____

Further explanation if required, of the proposed use

Site services including weigh scales, scale house and equipment storage area will be constructed.**10. Ownership of Neighbouring Properties**

Does the owner of the subject property or the applicant own any properties adjacent to the property named in this application?

☒ Yes☐ No

If yes, describe size, location and present use

East of the proposed site and King Road approximately 110 hectares. Quarrying of shale is the major land use, although the property is for the most part vacant. Also vacant land south of Highway 403. See Map 3 - Existing Land Use.**11. Legal Description**

A legal (metes and bounds) or Registered Plan description of the subject property is not required until (and if) provincial approval in principle is granted for this application. Before final approval is granted, however, a legal description must be submitted. (The legal description can usually be found on the property deed).

13. Additional Information

Use the space below to provide other information you wish to submit to support or clarify this application. Attach a separate sheet if necessary.

See attached report:

"National Sewer Pipe Proposed Sanitary Landfill Site, Burlington, Ontario"

If additional copies of maps or text are required, please contact:

**Mr. David Schram,
Proctor and Radfern Limited,
110 James Street,
St. Catharines, Ontario.
L2R 7E8
(416) 688-4272**

DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'C'

DEV. ITEM # 39.

#PL-29/82

PLANNING DEPARTMENT

February 18th, 1982

Chairman and Members of the
Planning & Development Committee

RE: NATIONAL SEWER PIPE LTD.
File No. (31-200)

Application to Amend the Land Use Regulations
made under the Parkway Belt Planning and
Development Act to permit the establishment of
a 20.6 hectare sanitary landfill facility.

RECOMMENDATION:

THAT the application for amendment to Ontario Regulation 482/73 made under the Parkway Belt Planning and Development Act by Proctor and Redfern Ltd., #75 Eglinton Avenue East, Toronto, Ontario, M4P 1H3 on behalf of NATIONAL SEWER PIPE LTD., P.O. BOX 1800, OAKVILLE, ONTARIO, L6J 5C7, to permit the establishment of a 20.6 hectare sanitary landfill site on PART OF LOTS 2 AND 3, CONCESSION 1 AND PART OF LOT 3, CONCESSION 2, EAST FLAMBOROUGH, LOCATED ON THE NORTH SIDE OF THE NORTH SERVICE ROAD WEST OF KING ROAD, File No. 31-200, be refused on the basis that the requested amendment to the Regulations does not conform to the Parkway Belt West Plan as incorporated into the City of Burlington's Official Plan and the Regional Official Plan,

AND THAT the City Clerk advise the applicant, the Ministry of Municipal Affairs and Housing and the Region of Halton accordingly,

AND THAT in the event that Ministry of Municipal Affairs and Housing staff is not prepared to approve the precise recommendation as set out by City Council, they notify the City Clerk in writing before any amending regulation is considered by the Minister, thereby providing City Council with the opportunity to consider the revisions proposed by the Ministry and if necessary, to have the matter referred to the Ontario Municipal Board as provided for in the Parkway Planning and Development Act, 1973.

AND FURTHER THAT should the owner wish to amend the Parkway Belt West Plan, an application for such amendment should be made directly to the Ministry of Municipal Affairs and Housing.

REPORT:

PURPOSE

To recommend a refusal of a Parkway Belt Regulation amendment application because it does not conform to the policies of the Parkway Belt West Plan.

SITE & LOCATION

The subject property consists of Part Lots 2 and 3, Concession 1 and Part Lot 3, Concession 2 in the former Township of East Flamborough. The property contains a total area of 70.23 hectares and is located on the north side of the North Service Road as shown on Sketch No. 1.

The owner, National Sewer Pipe Ltd., also owns other properties to the south and east of the subject property as shown on Sketch No. 1. Quarrying operations are undertaken on the subject lands and on the National Sewer Pipe lands immediately east of King Road.

The site consists of wooded and scrub areas and is traversed by deep ravines containing intermittent streams. Bayview Park is located to the east of the area to be landfilled. An active landfill site is located to the west of the subject property.

DETAILS OF APPLICATION

On July 3, 1981 the City received an application to amend the Parkway Belt Regulations to permit the establishment of a 28.5 hectare sanitary landfill site on a property having a total area of 70.2 hectares. The July 3, 1981 application is detailed on Sketch No. 2.

A second application was submitted to the City on January 25, 1982. The new application which is shown on Sketch No. 3, superseded the previous application. The area of the property to be landfilled has been reduced by 7.95 hectares to 20.6 hectares in order to preserve significant plant species.

National Sewer Pipe Ltd. proposes to develop the landfill site in five cells working generally from north to south. The proposed landfill facility represents an interim land use in a sequential land use program for the site whereby the applicant proposes to extract the underlying shale, fill the mined out areas by solid waste landfilling and then convert the site to a recreational or other final land use. The applicant is of the opinion that the final landforms will blend into the adjacent landscapes. National Sewer Pipe Ltd. stated that the proposed landfill facility will accept all non-hazardous, solid, residential, commercial and industrial and inert wastes. Access to the site is proposed from the North Service Road. A leachate collection system and a storm water management plan is proposed to be incorporated in the site design. The applicant proposes that the landfill facility will be privately owned and operated.

The letter of transmittal dated January 15, 1982 which accompanied the subject application recognizes that the Parkway Belt West Plan as well as the Regulations need amendment since it states that the application covers both an amendment to the Parkway Belt West Plan and the Parkway Belt Regulations.

PLANNING CONSIDERATION

Planning staff recommend that the National Sewer Pipe Ltd. application to establish a sanitary landfill facility be refused on the basis that it does not conform to the terms or intent of the Parkway Belt West Plan or Amendment No.101 to the Burlington Official Plan or the Regional Official Plan.

The subject area contains two Parkway Belt designations: Special Complementary Use Area on the southerly portion, and General Complementary Use on the northerly portion (see Sketch No. 1). Throughout the Parkway Belt West Plan, the Special Complementary Use Areas make special provision for specific uses in specific areas. The Special Complementary designation on the subject land makes no provision for a landfill facility, and envisages only light industrial type uses which do not detract from the open space character of the area and which preserve the natural landscape. It is our opinion that the Plan does not permit a landfill facility on the lands designated Special Complementary Use.

The "General Complementary Use Area" policies permit existing land uses, low density and low intensity agricultural uses, recreational uses, public uses and limited residential uses. Section 5.5.1(g) of the plan permits the establishment of other uses of land except residential or industrial providing that the new uses secure the open space character of the area and that major features such as streams, valleys and tree stands are preserved to the maximum possible degree.

The "General Complementary Use Area" designation also provides for changes of uses providing that the new uses are more compatible with the provisions of the Parkway Belt West Plan as existing uses and providing that all natural features are preserved to the maximum possible degree.

Staff are of the opinion that the proposed landfill facility does not conform to the Parkway Belt West Plan goals and policies relating to the preservation of existing natural features. Significant impacts upon existing landforms, vegetation, sight lines, ravines and watercourses can be expected should the subject lands be developed for sanitary landfill purposes. Given the significant environmental impacts that would be generated by the proposed facility, staff is of the opinion that it could not be defined as an "Other Use" as defined in Section 5.5.1(g), nor could it be considered to be a "Change of Use" as stated in Section 5.5.1(j) of the Plan.

In addition, it does not conform to the Plan in that, landfill site is not a permitted use in the Special Complimentary Use area in which National Sewer Pipe lands are partly situated.

In conclusion, it is our opinion that the City cannot support any application to amend the Parkway Belt Regulations when the proposed use does not conform to the policies of the Plan.

Amending the Parkway Belt Regulations is a relatively straightforward process which, nonetheless, requires significant City input. As a result, the City has had an arrangement with the Ministry of Municipal Affairs and Housing to accept and process Parkway Belt applications before their submission to the Ministry. Amending the Parkway Belt Plan, on the other hand, is a more complex Ministry-oriented process (see Appendix I). Therefore, it is our opinion that the applicant should apply directly to the Province with an application to amend the Plan. Rather than defer action on the related application to amend the Regulations, staff prefer to see that file closed. Should the applicant be successful in obtaining the required amendment to the Parkway Belt Plan, an updated application to amend the Regulations would then be in order.

Respectfully Submitted,

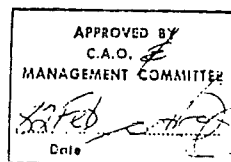
M. Hall

ASSISTANT DIRECTOR OF PLANNING
- DEVELOPMENT

A. P. [Signature]

DIRECTOR OF PLANNING

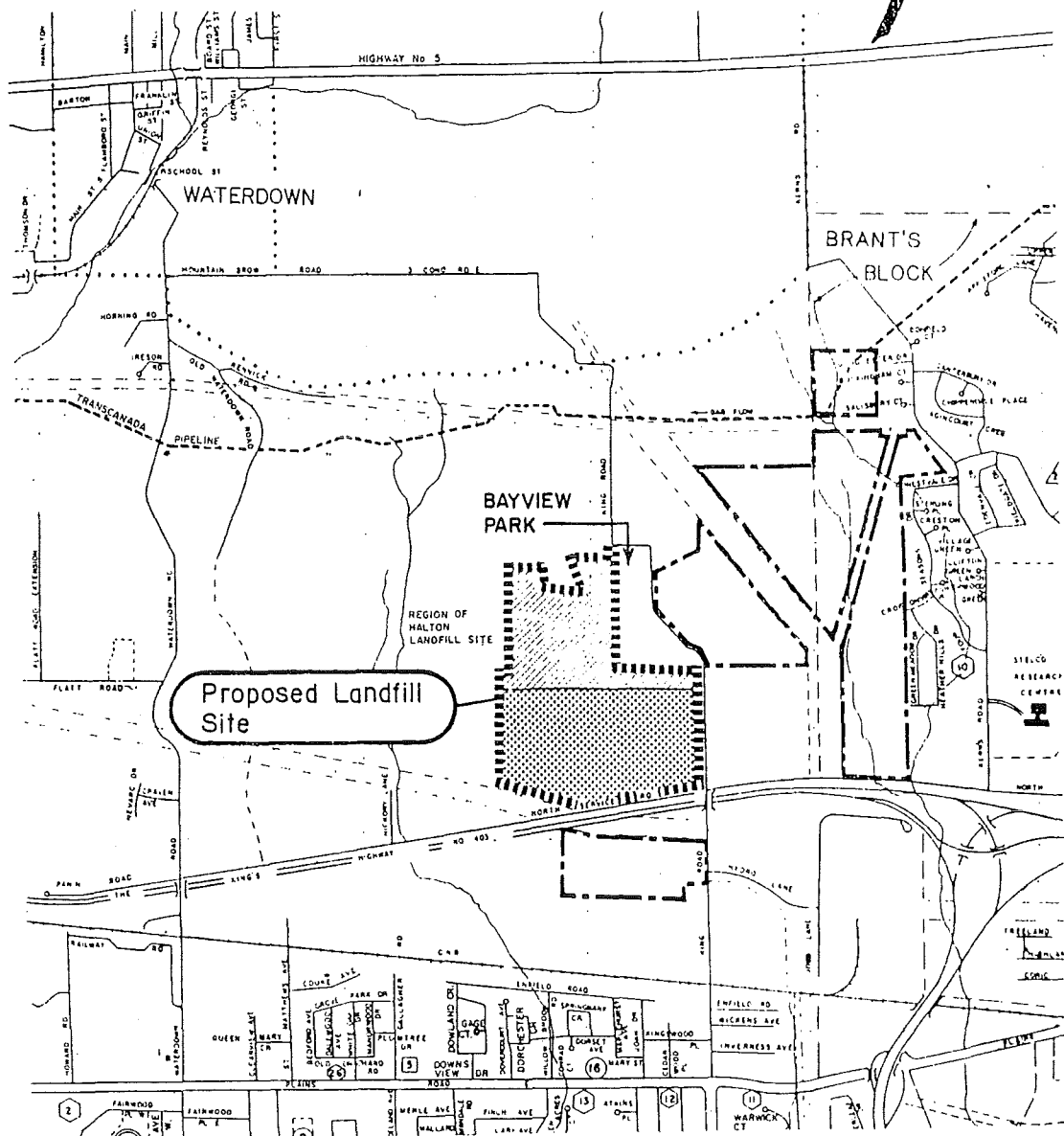
LD/dc/
Attachments/



Sketch No. 1

LOCATION SKETCH SHOWING LAND AFFECTED BY NATIONAL SEWER PIPE LIMITED APPLICATIONS FOR AMENDMENT TO THE LAND USE REGULATIONS MADE UNDER THE PARKWAY BELT PLANNING AND DEVELOPMENT ACT

DATE: July 14, 1981 SCALE: 1:25,000 FILE: 31-200



Legend

-  LIMITS OF NATIONAL SEWER PIPE SITE
-  AREA OF PROPOSED LANDFILL
-  OTHER NATIONAL SEWER PIPE HOLDINGS IN AREA
-  GENERAL COMPLEMENTARY USE AREA DESIGNATION

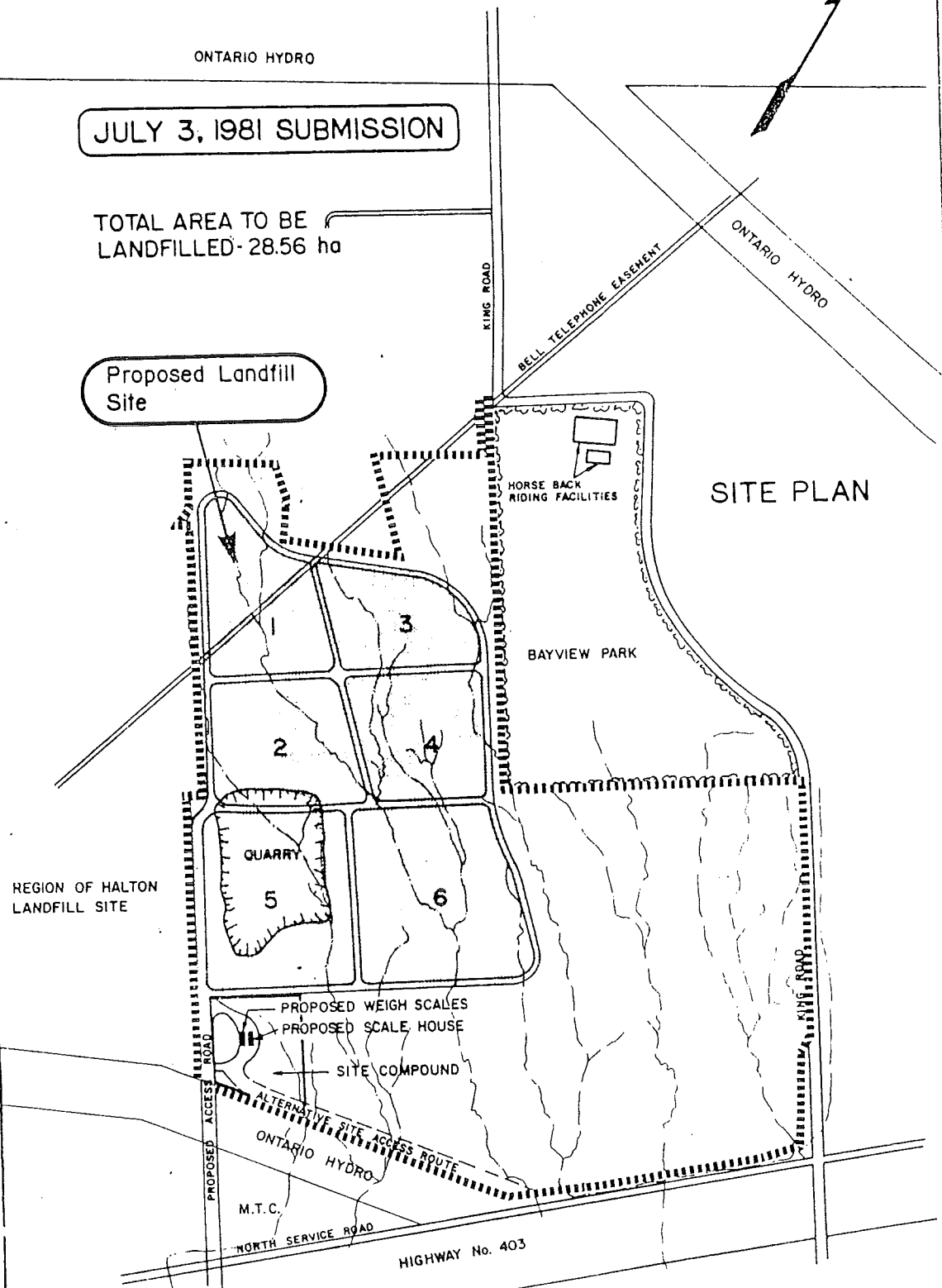
Sketch No. 2

APPLICATION BY NATIONAL SEWER
PIPE LIMITEDFOR AMENDMENT TO THE LAND USE REGULATIONS
MADE UNDER THE PARKWAY BELT PLANNING AND
DEVELOPMENT ACT

DATE: July 14, 1981

SCALE: 1:7,500

FILE: 31-200



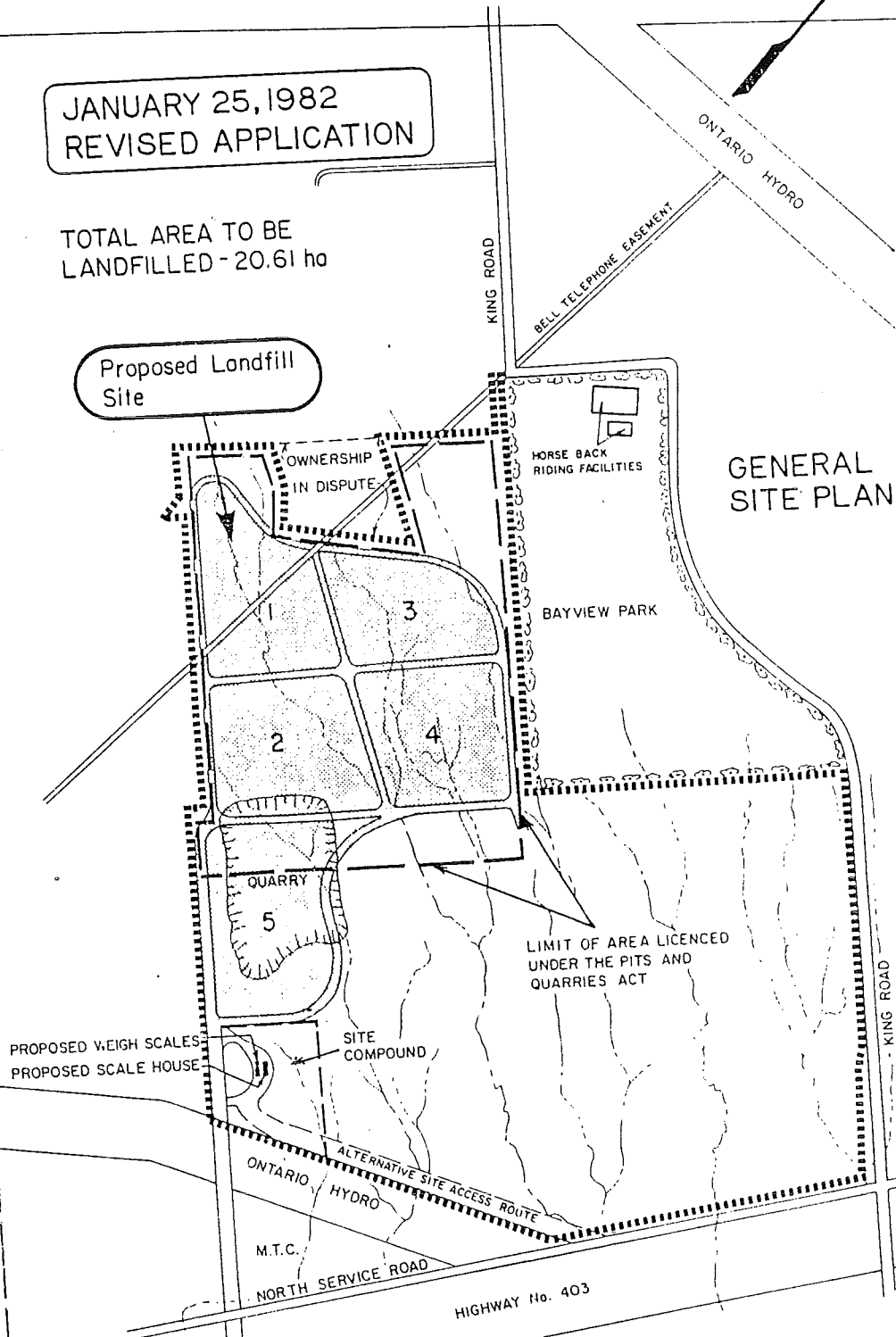
Sketch No. 3

APPLICATION BY NATIONAL SEWER
PIPE LIMITEDFOR AMENDMENT TO THE LAND USE REGULATIONS
MADE UNDER THE PARKWAY BELT PLANNING AND
DEVELOPMENT ACT

Date: FEBRUARY 12, 1982

Scale: 1:7500

File: 31-200

JANUARY 25, 1982
REVISED APPLICATIONTOTAL AREA TO BE
LANDFILLED - 20.61 haProposed Landfill
Site

APPENDIX I - THE PARKWAY BELT WEST PLAN AMENDMENT PROCESS

The Planning and Development Act sets out the procedure for amending a plan prepared under the Act. The Minister may initiate an amendment and an application may be made for an amendment by any person, Ministry or municipality.

Once the minister has decided to initiate an amendment the following steps have to be undertaken by the Minister:

1. To advise him on the preparation and implementation of the amendment, the Minister appoints two committees:
 - i) one representing the municipality or municipalities affected by the amendment
 - ii) one which is broadly representative of the people in the area affected by the amendment.
2. The Minister consults each municipality having jurisdiction over the affected lands and any municipality abutting these lands regarding the proposed contents of the amendment.
3. The Minister circulates the amendment to:
 - i) the two advisory committees
 - ii) the municipalities having jurisdiction

The Minister provides a minimum of 3 months for comments and recommendations from the advisory committees and municipalities.
4. A notice is published in one or more local newspapers notifying the public about the amendment and inviting submissions and comments.

A minimum period of 3 months after the publication of notice is provided for public submissions.
5. A Hearing Officer is appointed and a notice of hearing is published. Hearings can begin no sooner than three weeks after the notice is published.
6. The Hearing Officer reports to the Minister, no later than 3 months after the conclusion of the hearing.
7. The Minister considers the hearing officer's report and submits his recommendations to the Cabinet. If his recommendation is other than the Hearing Officer's, the Minister shall give public notice and allow 21 days for submissions to Cabinet.
8. The Cabinet makes its decision on the amendment.

DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'D'



December 11, 1984

Mr. G. Goodman
Director of Planning
City of Burlington
P.O. Box 5013
Burlington, Ontario
L7R 3Z6

Dear Mr. Goodman:

Subject: Parkway Belt Amendment 6 for
National Sewer Pipe Property
in Burlington

Further to a recent meeting on the above-described matter, which was attended by your staff, we have revised the text of the proposed amendment as discussed at that meeting.

It was also agreed to that the formal processing of the amendment should not proceed until early next year due to the proceedings under the Environmental Assessment Act for a new regional landfill site.

If your staff have any comments, they can contact me at 585-6057.

Yours truly,

Z. Weing
Senior Planner
Plans Administration Branch

c.c. Mr. R. Mohammed
Mr. M. Bacon
Mr. S. Sidiqui
Mr. A. Ramsay

RECEIVED	
CITY OF BURLINGTON	
PLANNING DEPT.	
DEC 21 1984	
G.E.G.	
I.S.	✓
M.H.	
T.A.R.	✓

FILE 31-31-2

B. THE AMENDMENT

1. Part (q) to Section 6.2.3 is revised by adding the following at the end of this part:

In addition, in that part of the area located in Lot 3, Conc. II and that part of Lot 3, Conc. I, located approximately north of the southerly boundary of the adjoining Burlington Landfill extended easterly, the Plan permits the completion of shale excavation and the establishment of a non-hazardous waste landfill site. In addition, in any part of Lot 3 of this Special Complementary Use Area, the plan permits ancillary and complementary uses such as a resource recovery facility, a refuse derived fuel plant, an energy from waste facility, a waste transfer facility, a waste processing and conditioning facility, and others. All of these uses will be subject to the following policies and conditions, however, in case of discrepancies between these conditions and any other section of the Plan, these conditions prevail.

The landfill site and ancillary and complementary uses will not be established before:

- i) approval by the Ministry of the Environment under the Environmental Protection Act or the Environmental Assessment Act;
- ii) approval of regional and local municipal official plan amendments;
- iii) coming into force of zoning by-laws;
- iv) entering into site-plan agreements, if required by the municipalities; and
- v) any other approval required by pertinent legislation.

The official plan amendments may, among other matters, contain detailed policies regarding:

- i) shale excavation including such matters as on site processing, and stockpiling overburden;
- ii) non-hazardous waste site including such matters as its precise boundaries, direction and method of landfilling;
- iii) relationship of excavation and landfilling including such matters as time sequence and rate of excavation and filling;
- iv) life-span of excavation, landfilling and ancillary uses;

- v) sources, and description of non-hazardous waste such as domestic and/or industrial; solid, inert, non-toxic, etc.
- vi) after-use of the landfill site;
- vii) rehabilitation of the quarry' area and the area of ancillary and complementary uses;
- vii) role of various authorities in such matters as approvals, monitoring and enforcement; and
- ix) any other matter required by the municipalities and other authorities.

Regarding ancillary and complementary uses, the official plan amendments may, among other matters, deal with the following:

- i) protection of wooded areas, hedgerows and trees as much as possible;
- ii) size of building and structures, having desirable lot-coverage of approximately 20%;
- iii) enclosure within buildings or fences, as may be appropriate of all uses on the site except for paved driveways and parking areas;
- iv) provision of suitably screened, landscaped and paved parking facilities for employees and visitors;
- v) provision of an open space character in the area;
- vi) provision of a setback for buildings and structures from North Service Road and King Road;
- vii) provision and maintenance of suitable landscaping and tree planting on the setback area as set out in the proceeding clause; and
- viii) any other matter required by the municipalities and other agencies.

Map 2, entitled "Escarpment Link" is amended, as illustrated on Map A attached, by:

- a) Redesignating approximately 28 hectares (70 acres) of land in part of Lots 2 and 3, Concessions I and II in the City of Burlington from General Complementary Use Area to Special Complementary Use Area as shown by hatching on the said extract from Map 2 attached hereto.

DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'E'



The Proctor & Redfern Group

Proctor & Redfern Limited
Consulting Engineers and Planners
20 Hughson Street South
Hamilton, Ontario L8N 2A1
Telephone (416) 529-7128

(A299)

RECEIVED

86 12 18

EO 79475

DEC 4 1987

December

PROCTOR & REDFERN LIMITED
ENGINEERS - OTTAWA

Ministry of the Environment
Environmental Approvals and
Project Engineering Branch
135 St. Clair Avenue, West
10th Floor
Toronto, Ontario
M4V 1P5

Attention Mr. C. E. McIntyre
Director of Approvals

Dear Sir

National Sewer Pipe Limited
Proposed Landfill Site, City of Burlington

On 82 04 14 we forwarded to you, on behalf of our client National Sewer Pipe Limited (NSP) an Application for a Certificate of Approval for a Waste Disposal Site (Landfill) on the NSP property in Parts of Lot 2 and 3, Concession 1 and Part of Lot 3, Concession 2 in the former Township of East Flamborough, now in the City of Burlington. Included with the Application were copies of all of the studies and other relevant documentation. A copy of the original Application is included in Appendix 'B'.

At the time of submission of the original Application in April, 1982 the design concept of the site called for an estimated capacity of approximately 1,600,000 Tonnes. The size of the site was reduced from a previous preliminary design due to the presence of a number of plant species that were identified as rare in accordance with a list of rare vascular plants in Ontario as published by Argus & White (1977).

As you are aware the establishment of a new landfill has been the subject of considerable study by the Regional Municipality of Halton. In September, 1982 the Region retained Walker Wright Young Associates Limited to complete an Environmental Assessment of the landfill component of the Regional waste management system.

In an attempt to co-operate with the Region and at the request of the Region, City of Burlington, Ministry of the Environment and the Ministry of Municipal Affairs and Housing, NSP agreed to place its application on hold until such time as the Region completed its Environmental Assessment.

In 1982 - 1984 the list of rare vascular plants in Ontario as published by Argus & White was revised and many of the rare plants on the NSP property

continued....

Att: Mr. C. E. McIntyre, Director

continued.....

were removed from the list of rare plants. As a result of the publication of this revised list we indicated the intent of NSP to revise its original Application for a Certificate of Approval. Notification of this intent was sent to the Regional Municipality of Halton, City of Burlington, Ministry of the Environment and the Ministry of Municipal Affairs and Housing. A copy of our letter of 84 12 04 outlining the intent of NSP to revise its Application is enclosed as Appendix 'C'.

Subsequent to our notification of intent to revise the NSP Application there were further delays in the completion of the Environmental Assessment studies by the Region. In an effort to continue to co-operate with the Region, the City of Burlington, the Ministry of the Environment and the Ministry of Municipal Affairs and Housing it was decided not to submit the revised Application but to continue to wait until the Region had completed its Environmental Assessment study.

In the final report by Walker Wright Young Associates Limited, the NSP lands and some adjacent property to the North were recommended as the preferred landfill site for Halton. Subsequent to the completion of that report further detailed studies of the NSP property and adjacent lands were carried out to the level required for submission under Part V of the Environmental Protection Act. These detailed studies by the Region supported the establishment of a landfill site on the NSP lands in a manner similar to that now contemplated by NSP in its proposed revised Application.

We have now enclosed copies of a revised Application for a Certificate of Approval for a Waste Disposal Site (Landfill) on the NSP property. This Application covers the establishment of a landfill site on the property as generally detailed on Map 13D. The site will have a capacity of 3,754,000 Tonnes. This revised Application and Map 13D are enclosed as Appendix 'A'.

We are now reviewing the status of our previous reports and will submit the appropriate amendments to these reports as soon as they are completed.

Yours very truly

The Proctor & Redfern Group



R. Talt, P. Eng.
Branch Manager

RT:rm
Encl.

- c.c. Mr. Christensen - NSP
- c.c. Mr. Tuer - Faskin & Calvin
- c.c. Mr. R. Mohammed - Region of Halton
- c.c. Mr. A. Ramsey - City of Burlington
- c.c. Mr. G. Mierzynski - Ministry of Environment
- c.c. Mr. L. Fincham - Ministry of Municipal Affairs



Ontario

Ministry
of the
Environment

(#299)

Revised Application
(Original Application April 13, 1982)

For Office Use
Application Number

APPLICATION FOR A CERTIFICATE OF APPROVAL
FOR A WASTE DISPOSAL SITE (LANDFILL)

IMPORTANT NOTE:

If this application is for notification of changes in use, operations, or ownership, specify the MOE number on your certificate _____ and fill in only the data on this form which are being revised.

1. Applicant:

Municipal () Provincial () Other ☒ (X)

Name: National Sewer Pipe Limited

Address: P. O. Box 1800 Postal Code: L6J 5C7

City/Prov.: Oakville, Ontario Telephone: 822-7900

If Applicant not Municipal or Provincial complete the following:

() Proprietorship
Name, if different than applicant: _____ (X) Corporation: President's Name:
R. S. Christensen

() Partnership - Name all partners:
(i) _____ (ii) _____

2. Land Owner: (if not applicant)

Name: _____

Address: _____

3. Lessee (if applicable)

Name: _____

Address: _____

4. Site Operator

Name: National Sewer Pipe Limited Title: Owner

Address: P. O. Box 1800, Oakville, Ontario L6J 5C7

5. Site Location:

Former Township of
East Flamborough

City ☒ (X) Concession: _____

Town () Name: Burlington Lot No: _____

Village () Part of Lot: 2 & 3 Conc 1, 3 Cor

Township () Street Address: North Service

Other Regional Municipality of Halton Road

Include a copy of the plan of survey of any lands on which the site is to be located.

6. Site Characteristics and Waste Category

- a. Present land use Licenced Extracting Shale Quarry
- b. Present Official Plan designation of site Parkway Belt West Plan - Special and Ge
Complimentary
- c. Present zoning category 'Development Zone' - subject to Ontario Regulation 41
- d. Present land use of all adjoining properties to be provided on location map.
- e. Rate at which site can receive waste per day.

Domestic 355 ^{K) Tonnes} () Cu. Meters

Commercial 235 ^{K) Tonnes} () Cu. Meters

If any of the following waste categories are intended to be received at the site, attached a description of each, including their source to the Application.

Liquid Industrial N/A () Tonnes () Cu. Metres Non Hazardous Solid Industrial Above ^{See X) Tonnes} () Cu. Metres
() Litres () Litres

Hazardous N/A () Tonnes () Cu. Meters Other () Tonnes () Cu. Meters Inert Wastes will be
() Litres () Litres Accepted at the Site

f. Number of days/year the site is open 310

g. Population served 264,498

h. Names of all municipalities/major industries intended to be served by the site

- | | |
|------------------------|--|
| 1) <u>Burlington</u> | 4) <u>Milton</u> |
| 2) <u>Oakville</u> | 5) <u>Any Industry Disposing of Non-Hazardous Solid Industrial Waste</u> |
| 3) <u>Halton Hills</u> | |

i. Total area of site 81.2 hectares or 200.6 acres

j. Total area to be filled 40.5 hectares or 100 acres

k. Estimated capacity of the site 3,754,000 tonnes or 6,319,000 cu. meters

(Rate per day and EST Capacity must be in the same measurement)

7. For enlargement and/or change of site only

a. Additional Life Expectancy N/A years

b. Additional Area Applied for N/A (hectares)

c. New Total Area of Site (hectares)

d. Name's of New Municipalities potentially served (1)

(2) (4)

(3) (5)

8. Control System

- a. Monitoring for - Gas ☒ Yes ☐ No - Ground Water ☒ Yes ☐ No - Surface Water ☒ Yes ☐ No
- b. Control system for - Gas ☐ Yes ☒ No - Gas utilization ☐ Yes ☒ No - Leachate ☒ Yes ☐ No

9. List all Supporting Documents Submitted with this Application.

- Proctor & Redfern Limited 1) Design Report (including one roll of drawings)
2) Environmental Appraisal Report
3) National Sewer Pipe Description

Morrison Beatty Limited 4) Phase I Hydrogeologic Investigation July 1979

10. Signature

5) Phase II Hydrogeologic Investigation June 1980

6) Phase III Hydrogeologic Investigation November 1986

Applicant Name (Printed)

* See below

Title

R. S. Christensen
President

(Signature)

Date

[Signature]

December 16/86

SEAL OF COMPANY
(if applicable)

*7) All relevant documentation prepared on behalf of the Regional Municipality of Halton to support its application for a Certificate of Approval for a Waste Disposal (Landfill) on the same property.

8) Amendments to Items 1) to 6) inclusive as prepared by Proctor & Redfern Limited and Morrison Beatty Limited.

82 04 14

Project EO 79493

Mr. G. Miarzynski
Acting Director
Central Region
Ministry of the Environment
Suite 700
150 Ferrand Drive
Don Mills, Ontario
M3C 3C3

Dear Sir

Landfill Site Application
National Sewer Pipe Limited
Burlington, Ontario

On behalf of National Sewer Pipe Limited, we submit herewith the enclosed application pursuant to Part V of the Environmental Protection Act, 1971, for a Certificate of Approval for a Waste Disposal Site (Landfill).

Two copies of the application and supporting documentation are enclosed for your use. As requested, we have also distributed copies of the application and supporting documentation as follows:

- Mr. T. W. Cross
Director
Environmental Approvals Branch
Ministry of the Environment
135 St. Clair Avenue West
Toronto, Ontario
M4V 1P5
- Mr. D. Y. Perlin
Chief Administrative Officer
Regional Municipality of Halton
P.O.Box 7000
1151 Bronte Road
Oakville, Ontario
L6J 6E1

continued.....

Mr. G. Mierzynski
Acting Director - Central Region
Ministry of the Environment

cont'd....

- Mr. M. H. Boggs
Chief Administrative Officer
Corporation of the City of Burlington
P. O. Box 5013
City Hall
Burlington, Ontario
L7R 3Z6

The supporting documents to the application include:

Proctor & Redfern Limited

- Design Report (including 1 roll of drawings) April 1982
- Environmental Appraisal Report March 1982
- Property Description

Morrison Beatty Limited

- Phase I Hydrogeologic Investigation July 1979
- Phase II Hydrogeologic Investigation June 1980
- Phase III Hydrogeologic Investigation November 1981

We are presently obtaining a certified copy of a list of adjacent property owners. This list will be forwarded to you as soon as it is available.

We would be pleased to make a presentation to Ministry staff to outline the proposal and answer any questions.

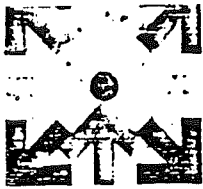
Yours very truly

The Proctor & Redfern Group

R. Tait, P. Eng.
Project Manager

RT:at
Encl.

- c.c. Mr. D. Y. Perlin
- c.c. Mr. T. W. Cross
- c.c. Mr. M. H. Boggs
- c.c. Mr. R. Tuer
- c.c. Mr. R. New
- c.c. Mr. M. Bacon



The Proctor & Redfern Group

APPENDIX C

Proctor & Redfern Limited
Consulting Engineers and Planners
20 Hughson Street South
Hamilton, Ontario L8N 2A1
Telephone (416) 529-7128

84 12 04 EO 79475

Regional Municipality of Halton
1151 Bronte Road
Oakville, Ontario
L6J 6E1

Attention Mr. R. Mohammed
Director of Planning

Dear Sir

National Sewer Pipe Limited
Proposed Landfill Site

You will recall that the southern limit of the proposed landfill site on the NSP property was revised due to the identification of a number of rare plants on the property. This revision to the southern boundary of the site resulted in a considerably reduced capacity for that site.

The designation of these plants as rare in our Environmental Appraisal dated March 1982 was based on the then current edition of The Atlas of the Rare Vascular Plants of Ontario by Argus and White, which is the reference used in the Province of Ontario to designate rare plants.

The new edition of The Atlas of the Rare Vascular Plants of Ontario Part 1 (1982), Part 2 (1983) and Part 3 (Nov. 1984) now only lists the following species found on the NSP property as rare:

- | | |
|-------------------------|------------------|
| • Carex gracilescens | Sedge |
| • Fraxina caroliniensis | American Columbo |

The following six species of plants originally identified as rare and no longer considered rare:

- | | |
|----------------------------|--------------------|
| • Anemonella thalictroides | Rue Anemone |
| • Arabis canadensis | Sicklepod |
| • Geum laciniatum | Rough Avena |
| • Juglans nigra | Black Walnut |
| • Ranunculus hispidus | Bristly Buttercup |
| • Vaccinium pallidum | Mountain Blueberry |

The net result of this change in the number of rare plants found on the NSP property is that the southern limit of the east half of the

continued

Attention Mr. R. Mohammed

..... cont'd.

proposed landfill area on the NSP property can be moved further south almost to the original alignment prior to the discovery of the originally designated rare plants. In addition, it is now possible to also extend the site further to the east, south of the adjacent Bayview landfill site.

These changes will result in a substantial increase in the potential capacity of this site.

We are now reviewing the full implications of this change and the substantial increase in capacity now available at this site and will be revising our applications to suit.

Yours very truly

The Proctor & Redfern Group

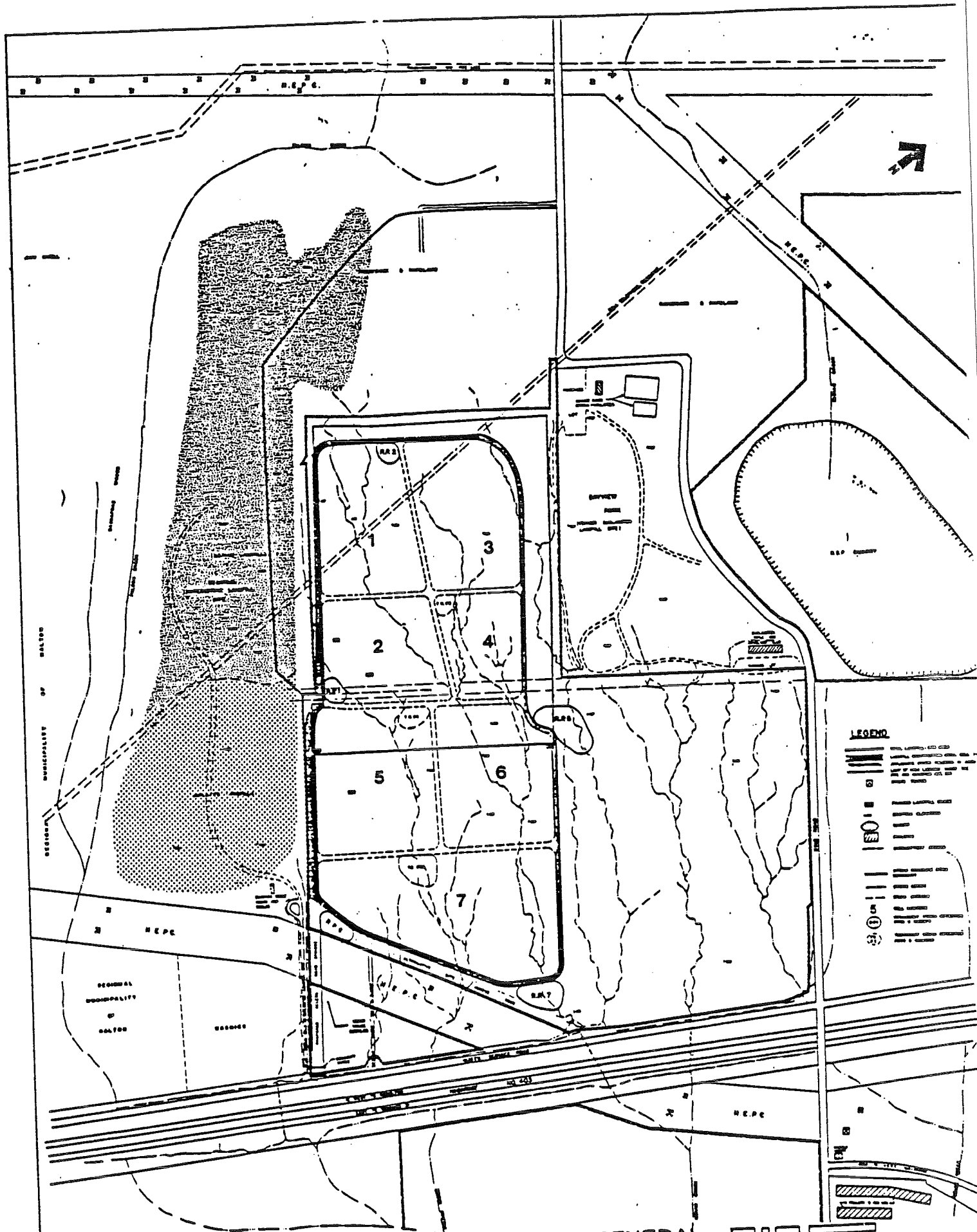


R. Tait, P. Eng.
Branch Manager

RT:at

c.c. M. H. Boggs, City of Burlington :
R. Christensen
R. Tuer
Walker Wright Young
M. Bacon
H. Donnelly, M.O.E.
J. Livey, Ministry of Housing

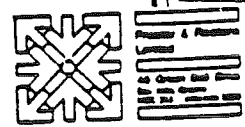
b.c.c. D. Schram
P. Niblett
H. Dahme (D.Estrin)

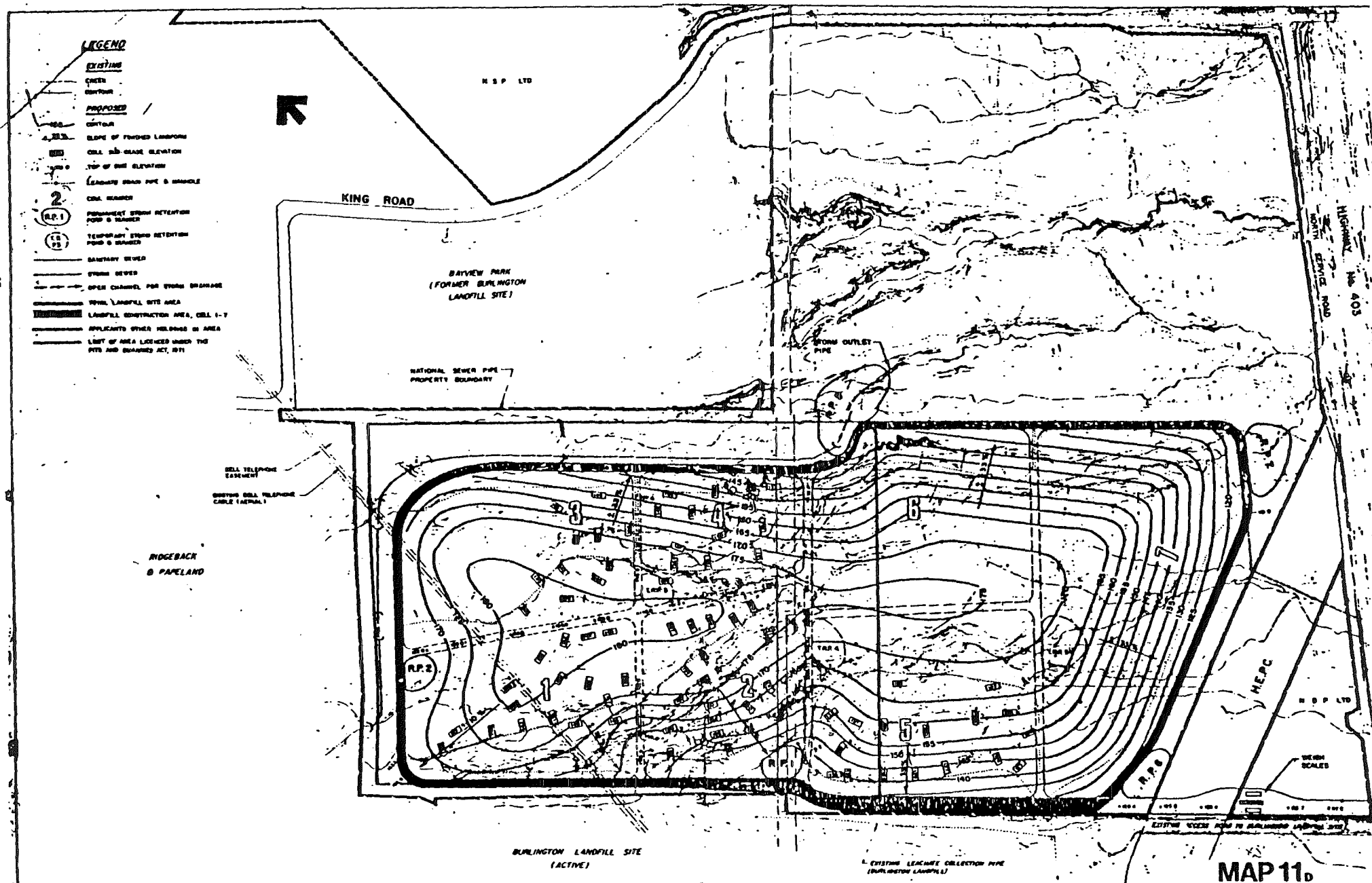


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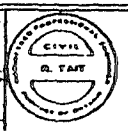
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N.S.P. PROPOSED GENERAL
SITE PLAN FOR SANITARY
LANDFILL. 1986





Cell No.	Cell Area (Acres)	Cell Volume (Cubic Yards)	Cell Status
1	1.0	100,000	Active
2	1.0	100,000	Active
3	1.0	100,000	Active
4	1.0	100,000	Active
5	1.0	100,000	Active
6	1.0	100,000	Active
7	1.0	100,000	Active



NATIONAL SEWER PIPE LIMITED

PROPOSED SANITARY LANDFILL (MODIFIED)

CELLS 1 TO 7 - FINAL LANDFORM

Proctor & Hedern Limited

Consulting Engineers
Toronto, Ontario

Scale: 1" = 100' (Horizontal)
1" = 10' (Vertical)

Date: January 1971



The Corporation of the
City of Burlington

City Hall:
426 Brant Street, Burlington, Ontario, Canada
Mailing Address:
P.O. Box 5013, Burlington, Ontario, Canada L7R 3Z6

Telephone: 335-7749

File No.: 550-02551/86

FILED
CITY OF BURLINGTON
C.A.O.

OCT 2 1986

MR	
GV	
SB	
MD	
GS	
SC	
APPROV	AP

cc. Mr. McLaughlin
McLaughlin

October 27, 1986

Dear Sir or Madam:

Re: Parkway Belt Application
Boehringer Ingelheim (Canada) Ltd.
Part of Lot 2, Con. 1 E.F.
King Road and North Service Road

Please be advised that the above noted company has made application to the City of Burlington to amend the Parkway Belt Regulations in order to permit a pharmaceutical company at the north-east corner of King Road and North Service Road. The new company will include offices, manufacturing, laboratory, packaging area and warehouse facilities as illustrated on the attached sketch.

Before presenting this application to the Planning and Development Committee for their consideration, the Planning Department invites your views to assist in fully assessing the application. If you require additional information, please contact Mr. Gary Wade of the Planning Department at 335-7636.

Your comments, should you wish to make any, should be submitted in writing addressed to the undersigned to be received no later than November 17, 1986.

Following receipt and review of any comments received, Planning staff will prepare a report for submission to a public meeting of the Planning and Development Committee.

If you wish to be notified of the date that this application will be considered by the Planning and Development Committee, or if you wish to address the Committee on this matter, please advise the undersigned of the Clerk's Department, City Hall. The time constraints governing consideration of the Planning Department's Report by Staff Management Committee, and its placement upon the Planning and Development Committee's Agenda, are such that notification will be carried out by telephone. Given this, it is essential that both your home and office (if applicable) telephone numbers be given if notification is required.

Please note that unless so requested, no further notice regarding this application will be forwarded to you prior to it being dealt with by the Planning and Development Committee.

In the interim, should you wish to make advance arrangements to appear as a delegation at the aforementioned meeting, please contact the undersigned at 335-7749.

Yours truly,

Linda Bowles,
COMMITTEE SECRETARY

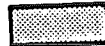
GW/LB/se
2667r

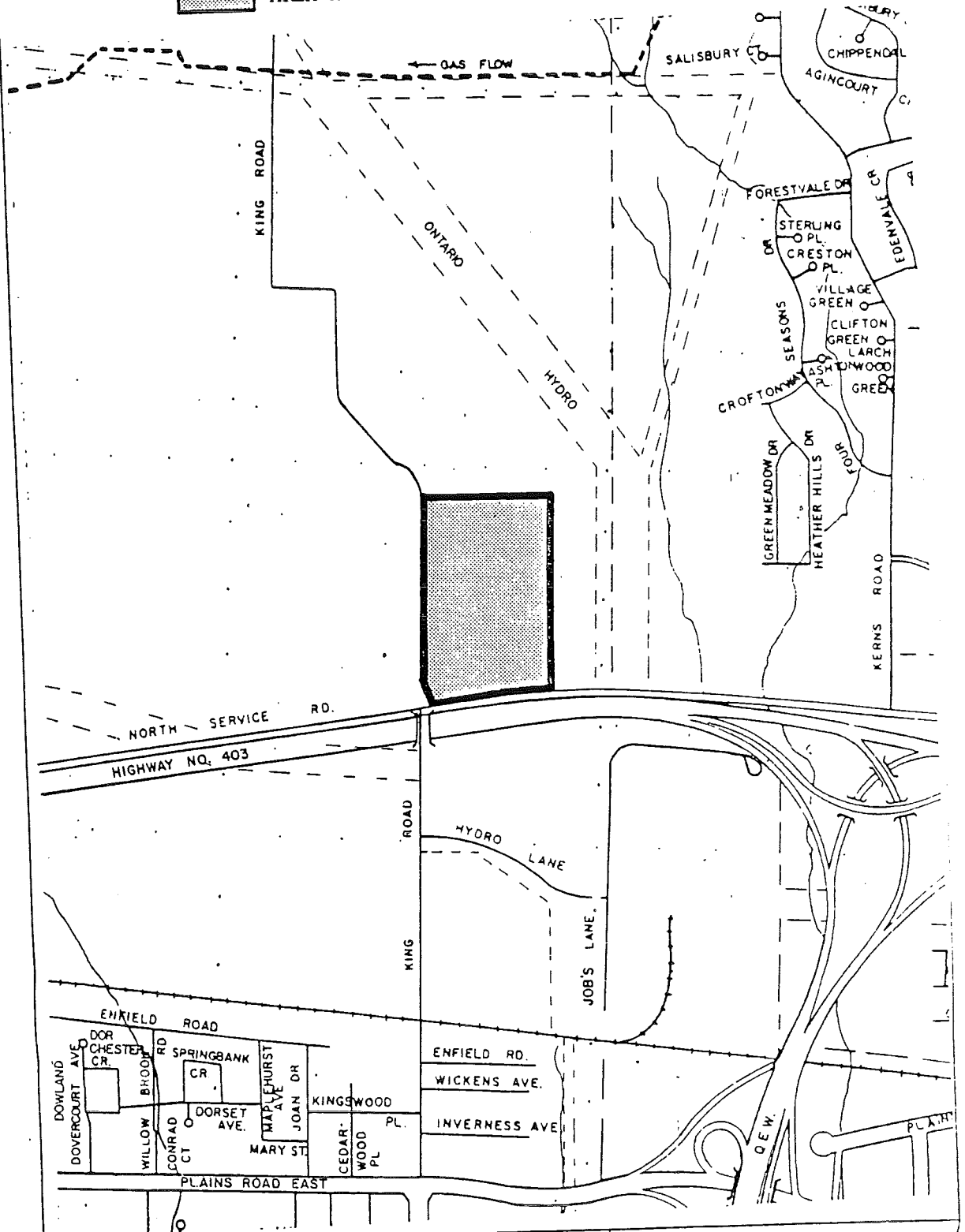
Sketch No. 1 LOCATION SKETCH

Application by BOEHRINGER INGELHEIM (CANADA) LTD. to
amend The Parkway Belt Planning & Development Act at
the northeast corner of King Road and North Service Rd.



File: 550-02-11/86

 AREA AFFECTED



Date: SEPTEMBER 30, 1986

Scale: 1:12500

TT
GW

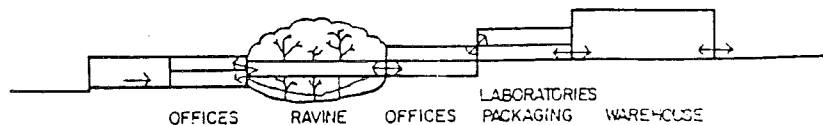
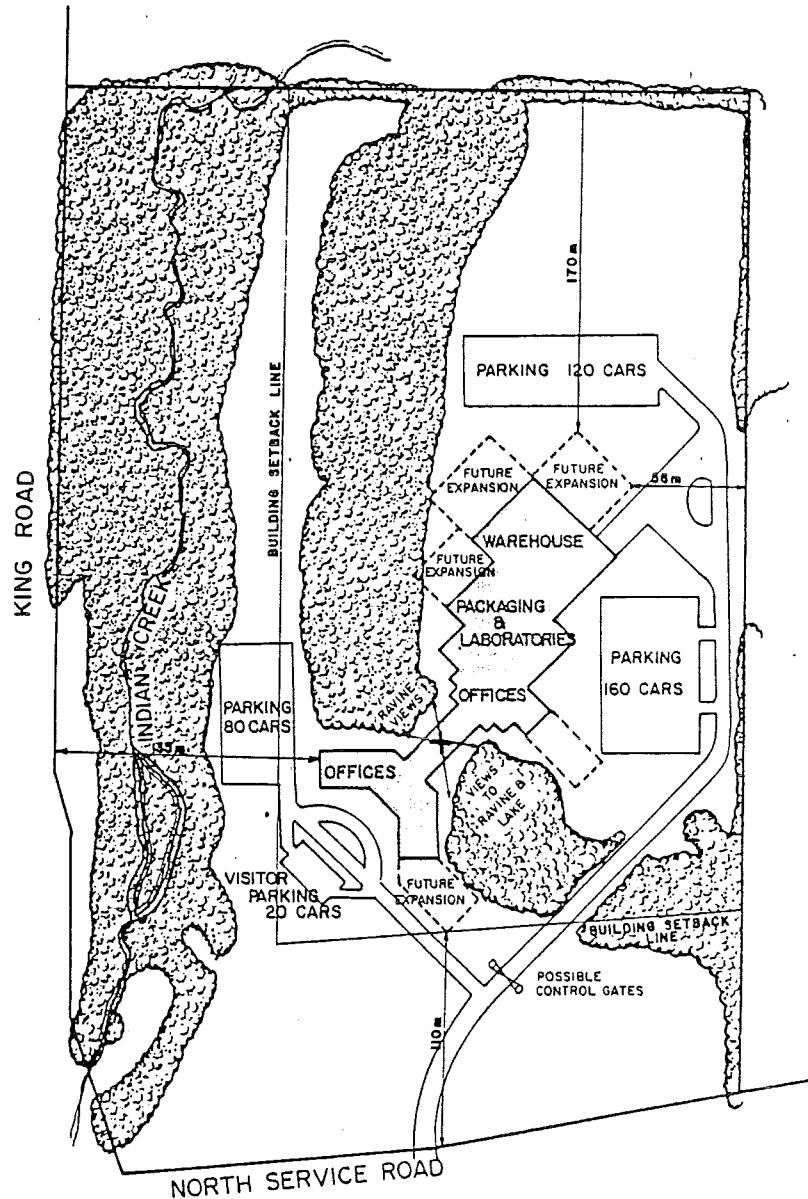
Burlington Planning Department

Sketch No. 2 DETAIL SKETCH



Application by BOEHRINGER INGELHEIM (CANADA) LTD.
to amend The Parkway Belt Planning & Development
Act at the northeast corner of King Road and North
Service Road.

File: 550-02-11/86



DIAGRAMATIC SECTION



Ministry of
Municipal Affairs
and Housing

RECEIVED
PLANNING DEPARTMENT

22 SEP 18 8:58

HALTON

For Office Use Only

Ont. Reg. No.
Parkway Belt File No.
Munic. File No. 550-02-11/86

Parkway Belt West

Application for Amendment to the Land Use Regulations Made Under the Parkway Belt Planning and Development Act, 1973

Please complete (type or print) in duplicate and submit to the clerk's office in the local municipality in which the subject property is located. If the property is located within more than one municipality, application forms should be submitted to each municipality. The applicant must sign and date each form in the place assigned below.

If you need more information or assistance in completing this form, please contact:

Plans Administration Branch
Central and South West
777 Bay Street
Toronto, Ontario
M5G 2E5

Local Municipality Burlington	Regional Municipality Halton
----------------------------------	---------------------------------

September 1986

Date

Signature of Applicant

Use X to complete ☐ on the form.

Mr. E.H. Schindler
Boehringer Ingelheim (Canada) Ltd.

1. Property Owner

Name Leota May Sovereign, Mary Doris Speck and Estate of Annie Evelyn Young	Business Telephone No. N/A
Address N/A (Owners have appointed the Applicant as their Agent)	Municipality N/A
	Residence Telephone No. N/A
	Postal Code N/A

2. Applicant (If other than Owner)

Name Boehringer Ingelheim (Canada) Limited	Business Telephone No. 639-0333
Address 977 Century Drive	Municipality Burlington
	Residence Telephone No. ---
	Postal Code L7L 5J8

3. Location of Property

Address North Service Road (East of King Road)	Municipality Burlington	Township Lot 1
		Concession

1. Previous Application

Has an application for an amendment to the Land Use Regulation been submitted previously for this property?

☐ Yes ☒ No ☐ Don't Know

If yes, indicate name of (former) applicant _____

5. Size of Property

Acres(Hectares)

45.27 acres (18.3 ha)

Square Feet(Metres)

6. Existing and Proposed Land Uses

	Existing	Proposed	Further explanation if required, of the proposed use Pharmaceutical Co. offices, manufacturing, laboratory, packaging area and warehouse
Residential	☐	☐	
Commercial	☐	☐	
Agricultural	☐	☐	
Industrial	☐	☒	
Institutional	☐	☐	
Recreational	☐	☐	
Vacant	☒		

7. Land Severance

Is a land severance required in connection with this property?

☐ Yes ☒ No

If you have applied for severance, it is:

☐ Granted ☐ Refused ☐ Pending

If granted, when? _____

Further explanation if required, of the severance application

8. Plan of Subdivision (if applicable)☐ Existing ☐ Proposed

Subdivision File Number _____

Further explanation if required

9. Proposed Construction Details☒ New Building(s) ☐ Addition(s)

Number of storeys

Office - 2 Warehouse - 1
& Lab

Proposed ground floor area (sq. ft.)

129,375 including elevated portion

Proposed total floor area (sq. ft.)

213,750 sq. ft.

Maximum height above ground

35 ft. (warehouse only)

Further explanation if required, of the proposed use

10. Ownership of Neighbouring Properties

Does the owner of the subject property or the applicant own any properties adjacent to the property named in this application?

☐ Yes ☒ No

If yes, describe size, location and present use

11. Legal Description

A legal (metes and bounds) or Registered Plan description of the subject property is not required until (and if) provincial approval in principle is granted for this application. Before final approval is granted, however, a legal description must be submitted. (The legal description can usually be found on the property deed).

12. Site Map (see sample illustration on last page)

Attach a sketch map to scale showing:

- lot and concession for subject property
- locations and names of all streets, roads, highways within or abutting the property
- boundaries and dimensions of subject property
- natural and man-made features such as buildings, railways, pipelines, water courses, drainage ditches, wooded areas and slopes both within and adjacent to the property
- areas of the subject property that are swampy or subject to erosion or flooding
- existing easements and rights-of-way
- location, use, height, length and width of all existing and proposed structures on the subject property and whether permanent (P) or temporary (T) or existing or proposed
- distance of subject property from nearest road intersection
- the nature of the existing uses of land and structures on the adjacent properties
- distances from the property boundaries of existing and proposed buildings on subject property

Draw Site Plan in this space (and attach a survey plan or Registered Plan, if available).

(See Site Plan Attached)

The subject lands and adjoining lands are vacant.

All buildings shown on the site plan will be permanent.

Due to the Site Plan showing the building at a conceptual architectural stage, it would be preferable for the Amendment to the Regulations to apply a building envelope similar to the Industrial Zones in the City of Burlington Zoning By-law. Setbacks of 40m east side and 100m north side requested for flexibility of design.

3. Additional Information

Use the space below to provide other information you wish to submit to support or clarify this application. Attach a separate sheet if necessary.

The proposed development of the site by a pharmaceutical company conforms with the policies of the Parkway Belt West Plan. It will retain much of the site in its present state and the architectural design of the building will be sensitive to the need for retention of the view of the lower terraces below the Niagara Escarpment.

Selective tree clearing would be required to construct the elevated office link over the ravine area, but new planting and professional landscaping will be undertaken to restore the natural amenity of the ravine vegetation.

In addition, further professional landscaping will be carried out along the frontage of the North Service Road which may consist of trees, shrubs and berms.

JUL 9 1991

FILE NO.

PART OF LOT 1
CONCESSION 1
(TOWNSHIP OF EAST FLAMBOURGH)
TOWN OF BURLINGTON
COUNTY OF HALTON

CON. 2

ROAD ALLOWANCE BETWEEN CONCESSIONS 1 AND 2 (NOT OPEN)

INST. 18776

POST AND WIRE FENCE
N. 43° 44' 30" E.

1151.22'
350.89 m.

INST. 18776

AREA = 45.27 ± ACRES

CONCESSION

INST. 29474

509.82 m.

1672.63'

POST AND WIRE FENCE

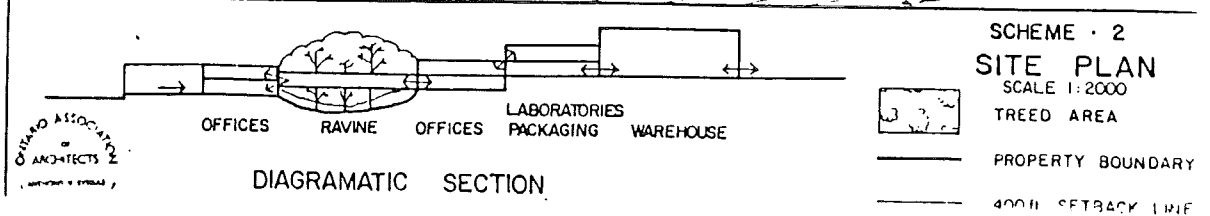
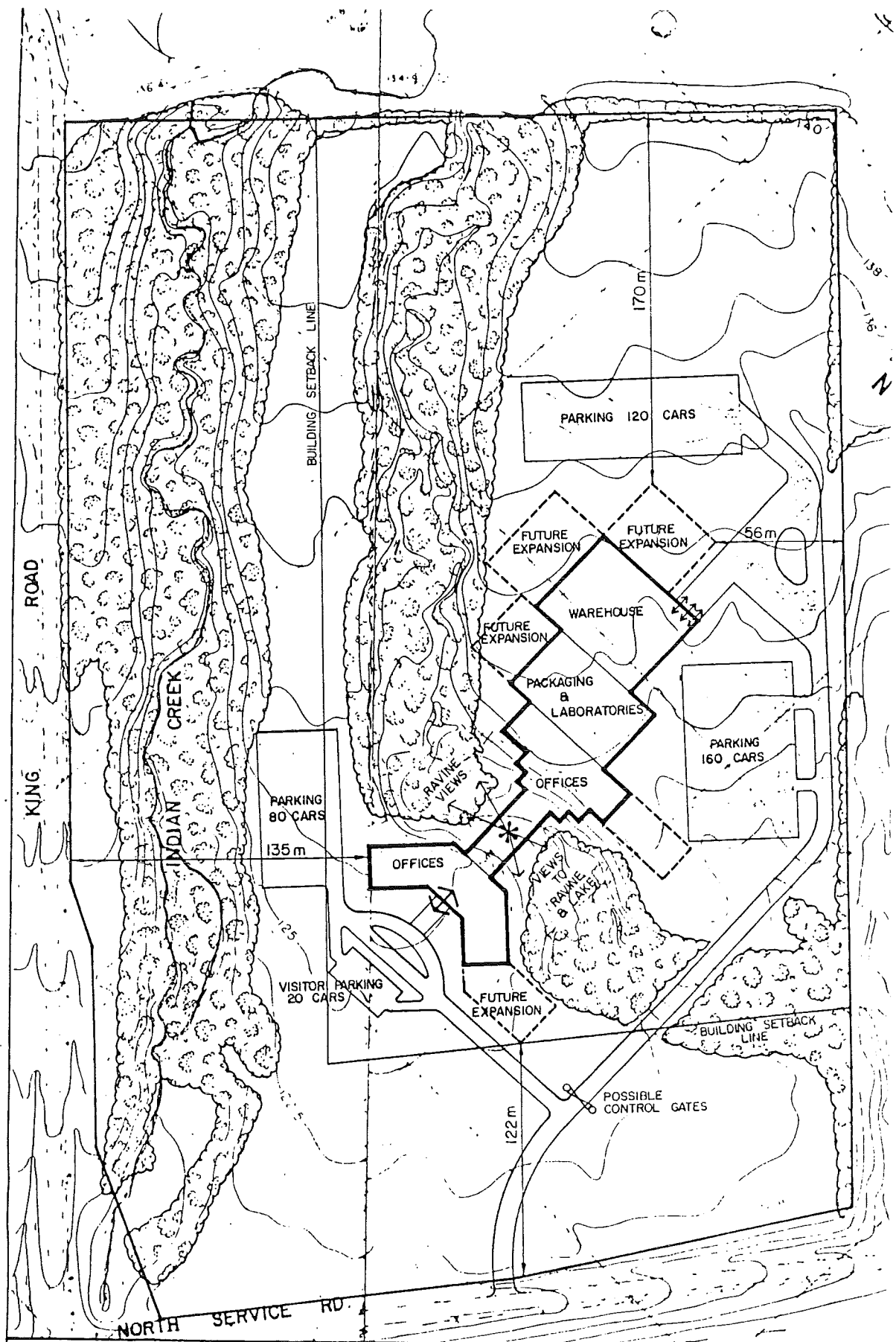
LIMIT OF D.T.C. FROM 1429
PLISC. (P-2792-56)

PORTLAND CEMENT
DEP. PLAN 1102 MISC.
(P-2792-56)
N. 46° 20' W
1160.89'

1170.12'

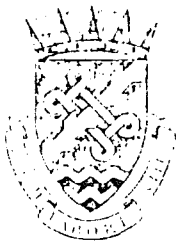
NORTH SERVICE ROAD
DEP. PLAN 1429 (P-2792-56) D.T.C. FILE

THE KING'S HIGHWAY No. 403



DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'G'



THE REGIONAL MUNICIPALITY OF HALTON

PLANNING AND
DEVELOPMENT
DEPARTMENT

P.O. BOX 7000
1151 BELLEVILLE ROAD
OAKVILLE, ONTARIO L6J 5E1
416-842-2151

86 11 06

VIA COURIER

Gary Wade
Planning Department
City of Burlington

Dear Mr. Wade:

Re: Proposed Amendment to the
Parkway Belt Land Use Regulations,
Boehringer Ingelheim (Canada) Ltd.,
Northeast corner of the North Service Road
and King Road, City of Burlington
File: 550-02-11/86

The subject property is designated "Special Complementary Use Area" in the Parkway Belt West Plan, July 1978. The pharmaceutical firm, Boehringer Ingelheim (Canada) Ltd., are proposing to consolidate their operation, including manufacturing, office, warehouse, and laboratory facilities on the subject lands.

Section 6.2.3 g) of the Parkway Belt West Plan does permit industrial development in this area subject to the appropriate zoning by-laws and development agreements. The Parkway Belt West Plan also sets out certain development criteria such as a maximum lot coverage of 20%, height and storage restrictions, etc.

It is Regional staff's understanding that City staff support a prestige-type industrial use in this location and believe it to be a suitable use given past studies and the Industrial land use designation of lands to the east fronting on the North Service Road. Consequently, while a municipal zoning by-law and development agreements have not, to date, been prepared for the subject lands, it is City staff's position that the proposed use complies with the intent of the policies and development criteria associated with the Special Complementary Use Area designation. From a land use perspective, Halton staff would not necessarily have any concerns with deeming the use to comply with the intent of the Parkway

Belt West Plan, but do have concerns related to servicing and the site's proximity to a proposed landfill site.

As you are aware, the subject site is located across from proposed landfill Site F. Site D, in Milton, and Site F have been identified as the two preferred locations based upon a number of technical reports and evaluations. Both sites will be considered at the upcoming Environmental Assessment hearings. The applicant should be fully aware of the existing potential that a landfill site may be located directly across King Road. While it is not expected that areas bordering the proposed landfill site may be negatively affected by odours, dust or windblown pollution, there may be some degree of nuisance despite on site mitigation measures.

An area of greater concern is related to transportation. Giffels Associates Limited have prepared a report entitled "Landfill Technical Study, Transportation Analysis - Site F" dated August 1986. This report states that in 1996, "when future waste delivered to the site will be at a peak (no energy from waste facility in place) a weekday total of 410 landfill vehicle arrivals has been predicted". The haulage vehicle trips will, in most cases, pass the subject site which may cause some degree of conflict with vehicles entering the subject lands and accessing the North Service Road. Again, the applicant should be aware of the transportation analysis prepared for Site F given the high volume of vehicles which are expected to deliver refuse to the proposed landfill site on a daily basis. Access to and from the North Service Road may be impeded somewhat given the high volume of truck traffic, and Burlington staff may wish to examine this concern in more detail.

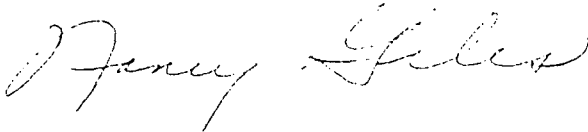
The Halton Health Department has advised that the development should only be considered on the basis of full municipal services. In this regard, as you are aware, a 450 mm diameter sanitary sewer has recently been constructed on King Road as part of the former Bayview landfill site cleanup. There is a 300 mm diameter watermain on the North Service Road, approximately 120 metres west of Kerns Road (see attached sketch). The applicants would be required to extend the watermain to the site at their own expense.

Policy 23 a) in Amendment No. 2 to The Regional Plan, which was approved by the Province on February 15, 1984, permits the extension of services to Parkway Belt Special Complementary Use Areas provided Regional Council determines it prudent and feasible. Consequently, the applicant would have to make a separate application to extend the watermain and

Halton staff would prepare a report and recommendation to Regional Council. Should the extension be deemed prudent and feasible, the applicant would be required to enter into a Servicing Agreement with the Region.

I trust these comments will be of assistance to you.

Yours truly,

A handwritten signature in cursive script, appearing to read "Nancy Giles".

Nancy Giles
Planner

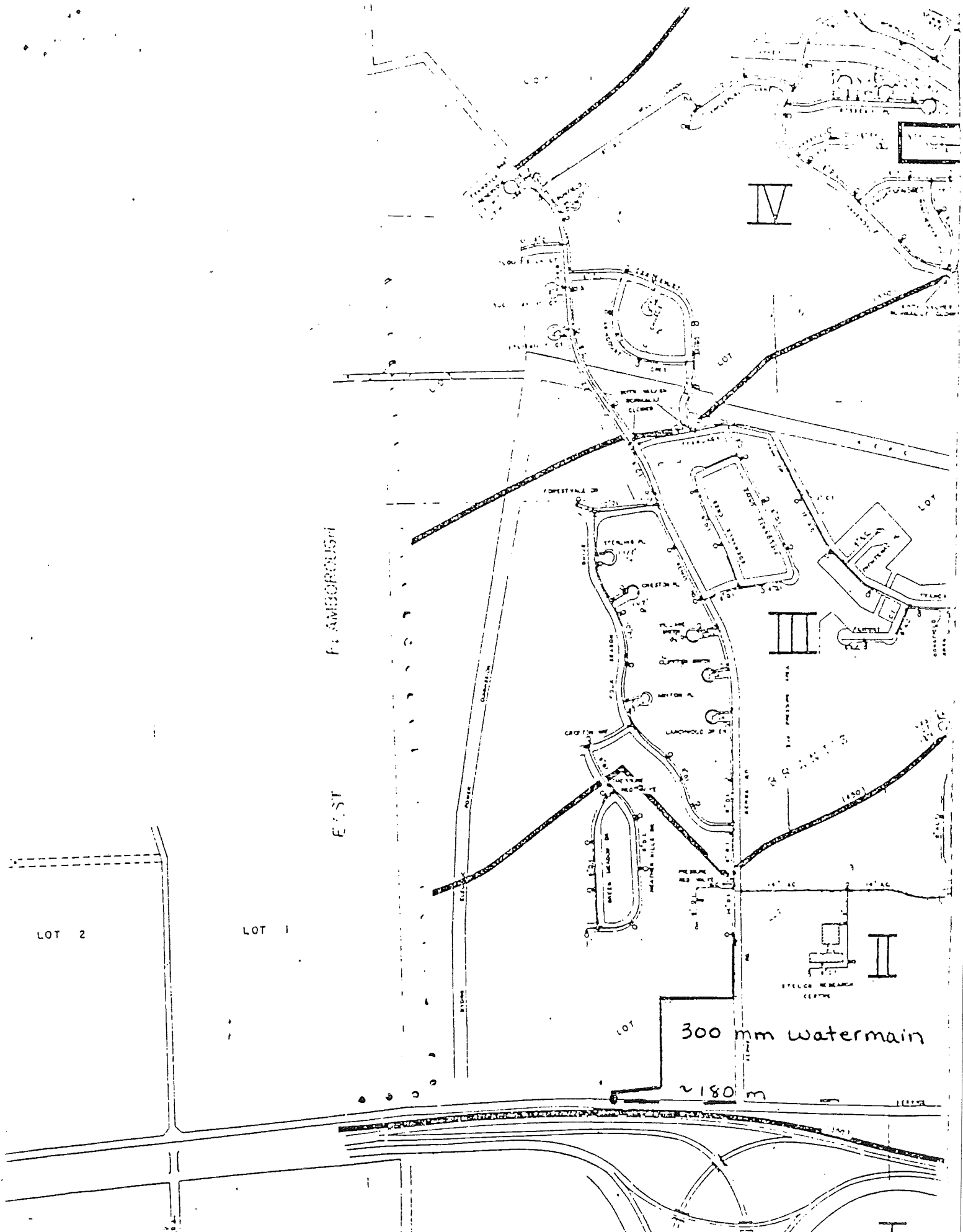
NG.sc.ks

cc: Mr. E.H. Schinler

Susan Rogers
Landfill Coordinator
Region of Halton

R.B. McMurray
Halton Public Works

Nov06/L1



DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'H'

The staging of the site will provide a limited working area leading to more effective control of the site. This will also mean quicker completion of any area of the site resulting in more effective control of the generation of leachate.

Construction of the major engineering works serving the landfill will be done incrementally as required. The installation of the leachate collection system will be staged to meet the cell-by-cell development requirements. Progressive final cover and a planting program will be staged to reduce rainfall penetration and therefore, leachate generation as well as providing maximum benefit from evapotranspiration and improved surface runoff deflection.

6.6 SITE CAPACITY AND LIFE

The estimated capacity of the five cells is approximately 1,600,000 tonnes as shown on the following Table 2. On the basis of total waste quantities projected in Table 1, the estimated site life is in the order of 7 years.

However, if only waste generated in the City of Burlington is deposited at the NSP site, the estimated site life would be approximately 15 years.

6.7 SITE CONSTRAINTS

During the studies of the proposed site, a number of rare and regionally significant species of plants were identified on the NSP property. Landfill operations will not occur in the areas where the majority of these species have been identified. The Environmental Appraisal Report identifies the location of these species. The limits of the

TABLE 2
CAPACITY AND SITE LIFE

Cell No.	Area (Hectares)	Capacity (tonnes)	Years to Complete
1	4.04	191,300	0.96
2	4.52	356,400	1.69
3	3.16	242,900	1.10
4	3.96	493,600	2.12
5	4.93	289,400	1.20
TOTAL	20.61 (50.93 acres)	1,573,600 (1,734,950 tons)	7.07

NOTES

1. Capacity calculations are based on Map 11 (Bottom Grading and Final Landform)
2. Solid waste capacity is the volume calculated between the cell subgrade elevation and the final contour elevation, less the volume required for daily and final cover.
 - a). Daily cover is applied at a ratio of 5:1 (5 parts solid waste to 1 part cover material) at a depth of 0.3 metres
 - b). Final cover and interim cover, excluding topsoil, will be applied at a depth of 0.75 metres and 0.60 metres respectively.
 - c). Density of waste is assumed at 594 kg/m^3 (1,000 lbs./cu.yd.)
3. Estimates represent total capacity of each cell.
4. Figures are approximate and may not be precise due to rounding.

DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'I'

Ex H-266



Trow

Hydrology Consultants

Trow Hydrology Consultants Ltd.
1595 Clark Boulevard, Brampton
Ontario, Canada. L6T 4V1
Telephone: (416) 793-9800
Telex: 06-97802

Project: W86-0797-A

June 12, 1987

C.N. Watson and Associates Ltd.,
2 Dunbloor Road, Suite 211,
The Dunbloor Professional Centre,
Islington, Ontario
M9A 2E4

Attention: Ms. Connie Kilgour

Dear Sirs:

Region of Halton
Revised Cost Estimates
Site "F"

We have prepared revised cost estimates for your consideration based on the refinement to the Site "F" design. Cost estimates follow the same format as previously submitted.

There are reductions in the total capital costs and initial site preparation costs. The operating cost has increased reflecting the change in the quantity of materials handled in the site operations.

We have also modified the operating cost to recognize the difference in cost of clay and shale excavation. If these are considered in accordance with our excavation quantities (revised Table 3), the operating cost is calculated to be \$7.40/tonne.

SITE "F"1. TOTAL CAPITAL COSTS

A) Clearing, Grubbing of Site and Excavation of First Fill Area

- 1) Clearing and grubbing of landfill area and other areas for site facilities
- ~52 ha at \$8,000/ha \$ 416,000.
- 2) Excavation of first area to specified depths, construction of berms, filling of valleys, construction of dykes and disposal of remaining quantities to storage area - ~140,000 m³ at \$8/m³ \$1,120,000.
- 3) Seeding of berms and other exposed areas from disposal of excavated quantities
- Allowance \$ 10,000.

B) Leachate Collection System

- 1) 150 mm diameter perforated collection pipe including graded filter - ~9170 m at \$40/m \$ 366,800.
- 2) 200 mm diameter perforated collection pipe - ~2040 m at \$45/m \$ 91,800.
- 3) 200 mm diameter solid headers - ~3580 m at \$80/m \$ 286,400.
- 4) 300 mm diameter main headers - ~600 m at \$125/m \$ 75,000.
- 5) Manholes - 41 required at \$7,000/each \$ 287,000.
- 6) Pumping station complete - (two required)
Lump Sum - \$50,000/each \$ 100,000.
- 7) Sewer upgrading - from the North Service Road to Manhole 14
- ~1070 m at \$350/m \$ 374,500.

C) Access Roads

- | | |
|---|-------------|
| 1) Paved roads including parking area, ditches
- ~340 m at \$200/m | \$ 68,000. |
| 2) Secondary gravel roads, including ditches,
culverts - ~4000 m at \$80/m | \$ 320,000. |
| 3) Temporary access roads - Allowance | \$ 10,000. |

D) Site Services

- | | |
|---|-------------|
| 1) Fencing and gates, chain link
- ~5500 m at \$40/m | \$ 220,000. |
| 2) Scales and scalehouse. Assume use of
existing and up-graded to suit - Allowance | \$ 50,000. |
| 3) Maintenance building including storage
area, fencing around storage area - Lump Sum | \$ 150,000. |
| 4) New scales (1998) - Allowance | \$ 50,000. |
| 5) Bulk bin area. Assume use of existing
and upgraded to suit - Allowance | \$ 25,000. |
| 6) Utilities upgrading and connection of
building to full service - Lump Sum | \$ 15,000. |
| 7) Watermain. Extension of watermain from
North Service Road to site | |
| - ~1000 m, 300 mm diameter at \$300/m | \$ 300,000. |
| - ~400 m, 150 mm diameter at \$200/m | \$ 80,000. |
| - Booster Station | \$ 50,000. |

E) Storm Water Management

- | | |
|---|-------------|
| 1) Retention ponds, excavation, rip-rap,
seeding, sodding - Lump Sum | \$ 100,000. |
|---|-------------|

F) Site Closure

- | | |
|--|--------------|
| 1) Final cover - ~49 ha at \$40,000/ha | \$1,960,000. |
|--|--------------|

2) Imported topsoil, hydroseeding - ~49 ha at \$15,000/ha	\$ 735,000.
Sub-Total	\$7,260,500.
Incl. 15% Contingency	\$8,349,575.
Incl. 15% Engineering	\$9,602,011.
TOTAL CAPITAL COST:	<u>\$9,600,000.</u>

G) Miscellaneous Capital Costs

Capital costs for contingency systems as outlined in the report that may be required in the future. Costs are not anticipated during site operations. Per annum costs as shown are suggested to be included as part of the yearly budget.

1) Contingency gas collection system - Allowance per annum	\$ 50,000.
2) Contingency leachate collection system - Allowance per annum	\$ 30,000.

2. INITIAL SITE PREPARATION COSTS

A) Clearing, Grubbing and Excavation of First Fill Area

1) Clearing and grubbing of first fill area and other areas for site facilities - Total Area - ~7 ha at \$8,000/ha	\$ 56,000.
2) Excavation of first area to specified depths, construction of berms, filling of valleys, construction of dykes and disposal of remaining quantities TO storage area - ~140,000 m ³ at \$8/m ³	\$1,120,000.
3) Seeding of berms and other exposed areas from stockpiling of excavated material - Allowance	\$ 10,000.

B) Leachate Collection System

1) 150 mm diameter perforated collection pipe including graded filter - ~600 m at \$40/km	\$ 24,000.
---	------------

- 6) Watermain. extension of watermain from
North Service Road to site
- | | |
|----------------------|-------------|
| - ~1000 m at \$300/m | \$ 300,000. |
| - ~400 m at \$200/m | \$ 80,000. |
| - Booster Station | \$ 50,000. |

E) Storm Water Management

- 1) Retention ponds - Lump Sum \$ 100,000.

Sub-Total	\$3,183,100.
Incl. 15% Contingency	\$3,660,565
Incl. 15% Engineering	<u>\$4,209,650.</u>

TOTAL INITIAL SITE PREPARATION COSTS: \$4,200,000.

3) OPERATING COSTS

A) Standard Operations

Includes staffing, equipment, operators, progressive cell excavation and development, storage of excess materials, daily cover, intermediate cover, routine site maintenance of roads and ditches, litter control. \$8.11/tonne.

8.11

B) Contingency Operations

Primarily implementing remedial measures to control localized leachate seeps

- Allowance per annum \$ 25,000.

C) Monitoring

Includes sampling and analysis for leachate, gas and storm water

- Installation of wells - Lump Sum \$ 25,000.

- Monitoring including lab analysis (sampling at 4 times/yr) - Allowance per annum \$ 35,000.

Hirsch
Oct 27/87

June 12, 1987



Should there be any questions or clarifications, please feel free to contact us.

Respectfully Submitted,
TROW HYDROLOGY CONSULTANTS LTD.

J.P. Nunan, P. Eng.,
Vice-President,
Principal Hydrogeologist

JAH/ird

cc. Mr. Tom Lederer

DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'J'

EXHIBIT H-304



Hydrology Consultants

2-4-304
Trow Hydrology Consultants Ltd.
1595 Clark Boulevard, Brampton
Ontario, Canada. L6T 4V1
Telephone: (416) 793-9800
Telex: 06-97802

Project: W-00797-A

October 20, 1987

C.N. Watson and Associates Ltd.,
The Dunbloor Professional Centre,
2 Dunbloor Road,
Suite 211,
Islington, Ontario
M9A 2E4

Attention: Mr. C.N. Watson, CMC

Dear Sirs:

Additional Costing Information
for Site F and Site D

Further to your letter of September 28, 1987, we provide the following information for your consideration.

1) LINER AT SITE F

The costs were developed using the same format as contained in our submission on the capital and operating costs for the two sites and used in the preparation of Schedule K.

TOTAL CAPITAL COSTS

A. Fine grade and surface preparation including sand mat:

~ 50 ha, 0.3 m thick	
150,000 m ³ @ \$4.50/m ³	\$ 675,000 ✓
10% allowance for side slopes	67,500 ✓

B. Imported clay liner, installation:

~ 50 ha, 1.0 m thick	
500,000 m ³ @ \$8.50/m ³	\$4,250,000 ✓
10% allowance for side slopes	425,000 ✓

C. Sand pad for liner protection:

~ 50 ha, 0.3 m thick
150,000 m³ @ \$4.50/m³
10% allowance for side slopes

\$ 675,000 ✓
67,500 ✓

Sub-Total:

\$6,160,000 ✓

Add 15% Contingency

\$7,084,000 ✓

Add 15% Engineering

\$8,146,600 ✓

TOTAL LINER COSTS:

\$8,150,000 ✓

INITIAL SITE PREPARATION COSTS

A. Fine grade and surface preparation including sand mat:

~ 7 ha, 0.3 m thick
21,000 m³ @ \$4.50/m³
10% allowance for side slopes

\$ 94,500 ✓
9,450 ✓

B. Imported clay liner, installation:

~ 7 ha, 1.0 m thick
70,000 m³ @ \$8.50/m³
10% allowance for side slopes

\$ 595,000 ✓
59,500 ✓

C. Sand pad for liner protection:

~ 7 ha, 0.3 m thick
21,000 m³ @ \$4.50/m³
10% allowance for side slopes

\$ 94,500 ✓
9,450 ✓

Sub-Total:

\$ 862,400 ✓

Add 15% Contingency

\$ 991,760 ✓

Add 15% Engineering

\$1,140,000 ✓TOTAL INITIAL SITE PREPARATION
COSTS FOR LINER:

\$1,140,000 ✓

DAVIS, HICKS & O'BRIEN LIMITED

2

SITE 'F'

1. TOTAL CAPITAL COSTS

A) Clearing, Grubbing of Site and Excavation of First Fill Area

- 1) Clearing and grubbing of landfill area and other areas for site facilities
- 23.61 ha at \$8,000/ha \$ 188,880
- 2) Excavation of first area to specified depths, construction of berms, filling of valleys, construction of dykes and disposal of remaining quantities to storage area
- 70,400 m at \$8/m \$ 563,200
- 3) Seeding of berms and other exposed areas from disposal of excavated quantities
- Allowance \$ 10,000

B) Leachate Collection Systems

- 1) 150 mm diameter perforated collection pipe including graded filter -
- 3857 m at \$40/m \$ 154,280
- 2) 200 mm diameter perforated collection pipe -
- 858 m at \$45/m \$ 38,610
- 3) 200 mm diameter solid headers -
- 1506 m at \$80/m \$ 120,480
- 4) 300 mm diameter main headers -
- 252 m at \$125/m \$ 31,500
- 5) Manholes - 41 required at \$7,000/each \$ 287,000
- 6) Pumping station complete - (two required)
Lump Sum - \$50,000 each \$ 100,000
- 7) Sewer upgrading - from the North Service Road to Manhole 14 -

DAVIS, HICKS & O'BRIEN LIMITED

6

C) Access Roads

- | | |
|---|------------|
| 1) Paved roads including parking area,
ditches
- 340 m at \$200/m | \$ 68,000 |
| 2) Secondary roads, gravel including
ditches, culverts
- 2510 m at \$80/m | \$ 200,800 |
| 3) Temporary access roads
- Allowance | \$ 10,000 |

D) Site Services

- | | |
|---|--------------------------------------|
| 1) Fencing and gates, chain link
- 5500 m at \$40/m | \$ 220,000 |
| 2) Scales and scalehouse.
- Lump sum | \$ 350,000 |
| 3) Maintenance building including storage
area, fencing around storage area
- Lump Sum | \$ 150,000 |
| 4) Bulk bin area.
- Lump sum | \$ 100,000 |
| 5) Utilities up-grading and connection of
buildings to full service
- Lump Sum | \$ 15,000 |
| 6) Watermain. Extension of watermain from
North Service Road to site
- 1000 m at \$300/m
- 400 m at \$200/m
Booster Station | \$ 300,000
\$ 80,000
\$ 50,000 |

DAVIS, HICKS & O'BRIEN LIMITED

7

E) Storm Water Management

1) Retention ponds - Lump Sum	\$ 100,000
Sub-Total	\$ 2,890,345
Incl. 15% Contingency	\$ 3,323,897
Incl. 15% Engineering	\$ 3,822,482
TOTAL INITIAL SITE PREPARATION COSTS:	<u>\$ 3,822,000</u>

3. OPERATING COSTS

A) Standard Operations

Includes staffing, equipment, operators, progressive cell excavation and development, storage of excess materials, daily cover, intermediate cover, routine site maintenance of roads and ditches, litter control.
- \$8.01/t (revised October 27, 1987)

B) Contingency Operations

Primarily implementing remedial measures to control localized leachate seeps
Allowance per annum \$ 25,000

C) Monitoring

Includes sampling and analysis for leachate, gas and storm water
- installation of wells - lump sum \$ 25,000
- monitoring including lab analysis (sampling at 4 times/yr. - allowance per annum \$ 35,000

DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'L'

DAVIS, HICKS & O'BRIEN LIMITED

TOTAL CAPITAL COSTS

A. Fine grade and surface preparation including sand mat:

20.61 ha, 0.3 m thick	
61,830 m @ \$4.50/m ³	\$ 278,235
10% allowance for side slopes	\$ 27,824

B. Imported clay liner, installation:

20.61 ha, 1.0 m thick	
206,100 m @ \$8.50/m ³	\$1,751,850
10% allowance for side slopes	\$ 175,185

D. Sand pad for liner protection:

20.61 ha, 0.3 m thick	
61,830 m @ \$4.50/m ³	\$ 278,235
10% allowance for side slopes	\$ <u>27,824</u>

Sub-total	\$2,539,153
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Add 15% contingency	\$2,920,026
---------------------	-------------

Add 15% engineering	\$3,358,030
---------------------	-------------

TOTAL LINER COSTS:	\$3,358,000
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DAVIS, HICKS & O'BRIEN LIMITED

INITIAL SITE PREPARATION COSTS

A. Fine grade and surface preparation including sand mat:

4.04 ha, 0.3 m thick	
12,120 m ³ @ \$4.50/m ³	\$ 54,540
10% allowance for side slopes	\$ 5,454

B. Imported clay liner, installation:

4.04 ha, 1.0 m thick	
40,400 m ³ @ \$8.50/m ³	\$ 343,400
10% allowance for side slopes	\$ 34,340

D. Sand pad for liner protection:

4.04 ha, 0.3 m thick	
12,120 m ³ @ \$4.50/m ³	\$ 54,540
10% allowance for side slopes	\$ 5,454

Sub-total	\$ 497,728
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Add 15% contingency	\$ 572,387
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Add 15% engineering	\$ 658,245
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TOTAL INITIAL SITE PREPARATION COSTS FOR LINER:	\$ 658,000
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DAVIS, HICKS & O'BRIEN LIMITED

SCHEDULE 'M'

DAVIS, HICKS & O'BRIEN LIMITED

2

SITE 'F'

1. TOTAL CAPITAL COSTS

A) Clearing, Grubbing of Site and Excavation of First Fill Area

- 1) Clearing and grubbing of landfill area and other areas for site facilities
- 38.88 ha at \$8,000/ha \$ 311,040
- 2) Excavation of first area to specified depths, construction of berms, filling of valleys, construction of dykes and disposal of remaining quantities to storage area
- 70,400 m at \$8/m \$ 563,200
- 3) Seeding of berms and other exposed areas from disposal of excavated quantities
- Allowance \$ 10,000

B) Leachate Collection Systems

- 1) 150 mm diameter perforated collection pipe including graded filter -
- 6715 m at \$40/m \$ 268,600
- 2) 200 mm diameter perforated collection pipe -
- 1494 m at \$45/m \$ 67,230
- 3) 200 mm diameter solid headers -
- 2621 m at \$80/m \$ 209,680
- 4) 300 mm diameter main headers -
- 439 m at \$125/m \$ 54,875
- 5) Manholes - 41 required at \$7,000/each \$ 287,000
- 6) Pumping station complete - (two required)
Lump Sum - \$50,000 each \$ 100,000
- 7) Sewer upgrading - from the North Service Road to Manhole 14 -

DAVIS, HICKS & O'BRIEN LIMITED

- 1070 m at \$350/m \$ 374,500

3

C) Access Roads

- 1) Paved roads including parking area, ditches
- 340 m at \$200/m \$ 68,000
- 2) Secondary roads, gravel including ditches, culverts
- 4000 m at \$80/M \$ 320,000
- 3) Temporary access roads - Allowance \$ 10,000

D) Site Services

- 1) Fencing and gates, chain link
- 5500 m at \$40/m \$ 220,000
- 2) Scales and scalehouse.
- Lump sum \$ 350,000
- 3) Maintenance building including storage area, fencing around storage area
- Lump Sum \$ 150,000
- 4) New scales
- in lump sum 2) above \$ NIL
- 5) Bulk bin area.
- Lump sum \$ 100,000
- 6) Utilities upgrading and connection of building to full service
- Lump Sum \$ 15,000
- 7) Watermain. Extension of watermain from North Service Road to site
- 1000 m, 300 mm diameter at \$300/m \$ 300,000
- 400 m, 150 mm diameter at \$200/m \$ 80,000
- Booster Station \$ 50,000

E) Storm Water Management

- 1) Retention ponds, excavation, rip-rap, seeding, sodding - Lump sum \$ 100,000

DAVIS, HICKS & O'BRIEN LIMITED

4

F) Site Closure

1) Final cover	
- 35.88 ha at \$40,000/ha	\$ 1,435,200
2) Imported topsoil, hydroseeding	
- 35.88 ha at \$15,000/ha	<u>\$ 538,200</u>
Sub-Total	\$ 5,982,525
Incl. 15% Contingency	\$ 6,879,904
Incl. 15% Engineering	<u>\$ 7,911,890</u>
TOTAL CAPITAL COST	<u>\$ 7,912,000</u>

G) Miscellaneous Capital Costs

Capital costs for contingency systems as outlined in the report that may be required in the future. Costs are not anticipated during site operations. Per annum costs as shown are suggested to be included as part of the yearly budget.

1) Contingency gas collection system	
- Allowance per annum	\$ 50,000
2) Contingency leachate collection system	
- Allowance per annum	\$ 30,000

DAVIS, HICKS & O'BRIEN LIMITED

5

2. INITIAL SITE PREPARATION COSTS

A) Clearing, Grubbing and Excavation of First Fill Area

- 1) Clearing and grubbing of first fill area
and other areas for site facilities
- Total area - 7.04 ha at \$8,000/ha \$ 56,320
- 2) Excavation of first area to specified
depths, construction of berms, filling of
valleys, construction of dykes and disposal
of quantities of storage area
- 70,400 m at \$8/m³ \$ 563,200
- 3) Seeding of berms and other exposed areas
from disposal of excavated quantities
- Allowance \$ 10,000

B) Leachate Collection System

- 1) 150 mm diameter perforated collection pipe
including graded filter
- 756 m at \$40/m \$ 30,240
- 2) 200 mm diameter perforated collection pipe
- 168 m at \$45/m \$ 7,560
- 3) 200 mm diameter solid headers
- 295 m at \$80/m \$ 23,600
- 4) 300 mm diameter main headers
- 49 m at \$125/m \$ 6,125
- 5) Manholes - 15 required at \$5,000/each \$ 75,000
- 6) Pumping station complete - 2 required
- Lump Sum \$ 100,000
- 7) Sewer Upgrading. Sewer upgrading from
North Service Road to Manhole 14
- 1070 m at \$350/m \$ 374,500

DAVIS, HICKS & O'BRIEN LIMITED

6

C) Access Roads

- | | |
|---|------------|
| 1) Paved roads including parking area,
ditches
- 340 m at \$200/m | \$ 68,000 |
| 2) Secondary roads, gravel including
ditches, culverts
- 2510 m at \$80/m | \$ 200,800 |
| 3) Temporary access roads
- Allowance | \$ 10,000 |

D) Site Services

- | | |
|---|--------------------------------------|
| 1) Fencing and gates, chain link
- 5500 m at \$40/m | \$ 220,000 |
| 2) Scales and scalehouse.
- Lump sum | \$ 350,000 |
| 3) Maintenance building including storage
area, fencing around storage area
- Lump Sum | \$ 150,000 |
| 4) Bulk bin area.
- Lump sum | \$ 100,000 |
| 5) Utilities up-grading and connection of
buildings to full service
- Lump Sum | \$ 15,000 |
| 6) Watermain. Extension of watermain from
North Service Road to site
- 1000 m at \$300/m
- 400 m at \$200/m
Booster Station | \$ 300,000
\$ 80,000
\$ 50,000 |

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E) Storm Water Management

1) Retention ponds - Lump Sum	\$ 100,000
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Sub-Total	\$ 2,890,345
Incl. 15% Contingency	\$ 3,323,897
Incl. 15% Engineering	\$ 3,822,482

TOTAL INITIAL SITE PREPARATION COSTS:	<u>\$ 3,822,000</u>
---------------------------------------	---------------------

3. OPERATING COSTS

A) Standard Operations

Includes staffing, equipment, operators, progressive cell excavation and development, storage of excess materials, daily cover, intermediate cover, routine site maintenance of roads and ditches, litter control.
- \$8.01/t (revised October 27, 1987)

B) Contingency Operations

Primarily implementing remedial measures to control localized leachate seeps
Allowance per annum \$ 25,000

C) Monitoring

Includes sampling and analysis for leachate, gas and storm water

- installation of wells - lump sum	\$ 25,000
- monitoring including lab analysis (sampling at 4 times/yr. - allowance per annum	\$ 35,000

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SCHEDULE 'N'

DAVIS, HICKS & O'BRIEN LIMITED

TOTAL CAPITAL COSTS

A. Fine grade and surface preparation including sand mat:

35.88 ha, 0.3 m thick	
107,640 m @ \$4.50/m ³	\$ 484,380
10% allowance for side slopes	\$ 48,438

B. Imported clay liner, installation:

35.88 ha, 1.0 m thick	
358,800 m @ \$8.50/m ³	\$3,049,800
10% allowance for side slopes	\$ 304,980

D. Sand pad for liner protection:

35.88 ha, 0.3 m thick	
107,640 m @ \$4.50/m ³	\$ 484,380
10% allowance for side slopes	\$ <u>48,438</u>

Sub-total	\$4,420,416
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Add 15% contingency	\$5,083,478
Add 15% engineering	\$5,846,000

TOTAL LINER COSTS:	\$5,846,000
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DAVIS, HICKS & O'BRIEN LIMITED

INITIAL SITE PREPARATION COSTS

A. Fine grade and surface preparation including sand mat:

4.04 ha, 0.3 m thick	
12,120 m ³ @ \$4.50/m ³	\$ 54,540
10% allowance for side slopes	\$ 5,454

B. Imported clay liner, installation:

4.04 ha, 1.0 m thick	
40,400 m ³ @ \$8.50/m ³	\$ 343,400
10% allowance for side slopes	\$ 34,340

D. Sand pad for liner protection:

4.04 ha, 0.3 m thick	
12,120 m ³ @ \$4.50/m ³	\$ 54,540
10% allowance for side slopes	\$ 5,454

Sub-total	\$ 497,728
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Add 15% contingency	\$ 572,387
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Add 15% engineering	\$ 658,245
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TOTAL INITIAL SITE PREPARATION COSTS FOR LINER:	\$ 658,000
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SCHEDULE 'O'

TIPPING FEES

As the value estimates assume a private operation, competitive fees must be adopted to attract the necessary landfill to fill the site to capacity having regard to the capacity and life projected. The 1986/1987/1988 tipping fee structure for surrounding Regions and private operators is as follows:-

<u>Region or Private Operator</u>	<u>Tipping Fee per tonne</u>		
	<u>1986</u>	<u>1987</u>	<u>1988</u>
Halton Region	\$26.50	\$34.50	\$59.00
Metro Toronto	\$17.25	\$18.00	\$50.00
Hamilton Wentworth	\$24.00	\$27.00	\$28.60
Peel Region	\$19.00	\$34.50	n/a
St. Catherines	n/a	\$20.50	n/a
Grimsby	n/a	\$32.00	\$50.00
Walker Bros.	n/a	\$26.00	n/a
Steetley Bros.	n/a	\$28.00	n/a

Value Estimates Alternative Use 2

1) Assumed 7 year life:-

CAPACITY AND SITE LIFE

<u>Cell No.</u>	<u>Area (Hectares)</u>	<u>Capacity (tonnes)</u>	<u>Years to Complete</u>
1	4.04	191,300	0.96
2	4.52	356,400	1.69
3	3.16	242,900	1.10
4	3.96	493,600	2.12
5	<u>4.93</u>	<u>289,400</u>	<u>1.20</u>
Total	20.61	1,573,600	7.07

(50.93 acres) (1,734,950 tons)

TIPPING FEE

Having regard to the current value date, the highly publicized shortage of landfill sites in Southern Ontario and particularly the Golden Horseshoe, and the problems and time constraints in obtain new sites and particularly Metropolitan Toronto and the Region of Halton's well publicized waste disposal crisis, there is no longer any need to be competitive and a tipping fee of \$50.00 per ton is selected.

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1) Assumed 7 year life (224,800 tonnes p.a.):-

Projected gross income
224,800 tonnes p.a. @ \$50.00/tonne \$11,240,000 p.a.

Less

Operating costs		
224,800 @ \$8.00 per tonne	=	\$1,798,400 p.a.
Leachate treatment	=	\$35,000 p.a.
Contingency operations	=	\$25,000 p.a.
Monitoring	=	\$60,000 p.a.
Administration/mgmt	=	\$131,500 p.a.
Misc. capital costs	=	\$80,000 p.a.
		<u>\$2,129,900 p.a.</u>

Net income before
financing and recapture = \$9,110,100 p.a.

Present value of \$9,110,100 p.a. paid
\$759,175 per month for 7.07 years compounded
@ 15% (9% rate + 3% risk + 3% profit) per
annum paid monthly in arrears
P.V. factor = 52.11468 \$39,564,169

Add

Present value of reversionary
interest in land in 7.0 years
discounted @ 9% p.a.
Section 45 land
74 acres @ \$3,000 per acre = \$222,000
Special Complementary
Use land
56.645 acres @ \$10,000 per acre = \$566,450

\$788,450

P.V. factor for 7.07 years @ 9%	x 0.5437442	= \$428,715
	-----	-----
Indicated capital value		=\$39,992,884

Less

Initial site preparation	=	\$3,822,000
Initial clay liner costs	=	\$658,000
Present value of leachate collection system cell expansion		
22.6% of \$631,870 x 115% x 115% =		
\$188,856 deferred 0.96 years @ 9%		
P.V. factor = 0.9205991	=	\$173,861

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15.3% of \$631,870 x 115% x 115% =		
\$127,854 deferred 2.65 years @ 9%		
P.V. factor = 0.795829	=	\$101,750
19.2% of \$631,870 x 115% x 115% =		
\$160,444 deferred 3.75 years @ 9%		
P.V. factor = 0.7238534	=	\$116,138
23.9% of \$631,870 x 115% x 115% =		
\$199,720 deferred 5.87 years @ 9%		
P.V. factor = 0.6029849	=	\$120,428
Present value of clay liner for cell expansion		
22.6% of \$3,358,000 =		
\$758,908 deferred 0.96 years @ 9%		
P.V. factor = 0.9205991	=	\$698,650
15.3% of \$3,358,000 =		
\$513,774 deferred 2.65 years @ 9%		
P.V. factor = 0.795829	=	\$408,876
19.2% of \$3,358,000 =		
\$644,736 deferred 3.75 years @ 9%		
P.V. factor = 0.7238534	=	\$466,694
23.9% of \$3,358,000 =		
\$802,562 deferred 5.87 years @ 9%		
P.V. factor = 0.6029849	=	\$483,933
Present value of site closure costs = \$1,133,550		
x 115% x 115% = \$1,499,120		
deferred 7.0 years @ 9% p.a.		
P.V. factor = 0.5470342	=	\$820,070
Cost to complete approval process, say	= \$1,500,000	= \$9,370,401
Indicated value of Regional requirement from subject Property No. 1 (N.S.P. lands) based upon N.S.P.'s original application for a certificate of approval for a waste disposal site (landfill) (Exhibit H-313) on a 7 year (short) life basis		= \$30,622,483

\$30,622,483
----- = \$234,395 per acre
130.645 acres

\$30,622,483
----- = \$579,181 per hectare
52.872 hectares

Value Estimates Alternative Use No. 2

2) Assumed 15 years life:-

CAPACITY AND SITE LIFE

<u>Cell No.</u>	<u>Area (Hectares)</u>	<u>Capacity (tonnes)</u>	<u>Years to Complete</u>
1	4.04	191,300	1.82
2	4.52	356,400	3.40
3	3.16	242,900	2.32
4	3.96	493,600	4.71
5	<u>4.93</u>	<u>289,400</u>	<u>2.76</u>
Total	20.61	1,573,600	15.01

(50.93 acres) (1,734,950 tons)

TIPPING FEE

Having regard to the current value date, the highly publicized shortage of landfill sites in Southern Ontario and particularly the Golden Horseshoe, and the problems and time constraints in obtain new sites and particularly Metropolitan Toronto and the Region of Halton's well publicized waste disposal crisis, there is no longer any need to be competitive and a tipping fee of \$50.00 per ton is selected.

1) Assumed 15 year life (104,907 tonnes p.a.):-

Projected gross income
104,907 tonnes p.a. @ \$50.00/tonne = \$5,245,350 p.a.

Less

Operating costs		
104,907 @ \$8.00 per tonne	=	\$839,256 p.a.
Leachate treatment	=	\$35,000 p.a.
Contingency operations	=	\$25,000 p.a.
Monitoring	=	\$60,000 p.a.
Administration/mgmt	=	\$131,500 p.a.
Misc. capital costs	=	\$80,000 p.a.
		<u>\$1,170,756 p.a.</u>

Net income before
financing and recapture = \$4,074,594 p.a.

Present value of \$4,074,594 p.a. paid
\$339,550 per month for 15.01 years compounded
@ 15% (9% rate + 3% risk + 3% profit) per
annum paid monthly in arrears
P.V. factor = 71.46237 \$24,265,015

Add

Present value of reversionary
interest in land in 15.01 years
discounted @ 9% p.a.
Section 45 land
74 acres @ \$3,000 per acre = \$222,000
Special Complementary
Use land
56.645 acres @ \$10,000 per acre = \$566,450
\$788,450

P.V. factor for 15.01
years @ 9% x 0.2743016 = \$216,273

Indicated capital value = \$24,481,288

Less

Initial site preparation	=	\$3,822,000
Initial clay liner costs	=	\$658,000
Present value of leachate collection system cell expansion		
22.6% of \$631,870 x 115% x 115% =		
\$188,856 deferred 1.82 years @ 9%		
P.V. factor = 0.8548379	=	\$161,442
15.3% of \$631,870 x 115% x 115% =		
\$127,854 deferred 5.22 years @ 9%		
P.V. factor = 0.6377254	=	\$81,536

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19.2% of \$631,870 x 115% x 115% =		
\$160,444 deferred 7.54 years @ 9%		
P.V. factor = 0.5221607	=	\$83,778
23.9% of \$631,870 x 115% x 115% =		
\$199,720 deferred 12.25 years @ 9%		
P.V. factor = 0.3479569	=	\$69,494
Present value of clay liner for cell expansion		
22.6% of \$3,358,000 =		
\$758,908 deferred 1.82 years @ 9%		
P.V. factor = 0.8548379	=	\$648,743
15.3% of \$3,358,000 =		
\$513,774 deferred 5.22 years @ 9%		
P.V. factor = 0.6377254	=	\$327,647
19.2% of \$3,358,000 =		
\$644,736 deferred 7.54 years @ 9%		
P.V. factor = 0.5221607	=	\$336,656
23.9% of \$3,358,000 =		
\$802,562 deferred 12.25 years @ 9%		
P.V. factor = 0.3479569	=	\$279,257
Present value of site closure costs = \$1,133,550		
x 115% x 115% = \$1,499,120		
deferred 15.01 years @ 9% p.a.		
P.V. factor = 0.2743016	=	\$411,211
Cost to complete approval process, say	= \$1,500,000	= \$8,379,763

Indicated value of Regional requirement from
subject Property No. 1 (N.S.P. lands) based
upon N.S.P.'s original application for a certificate
of approval for a waste disposal site (landfill)
(Exhibit H-313) on a 15 year (extended) life basis = \$16,101,525

\$16,101,525
----- = \$123,246 per acre
130.645 acres

\$16,101,525
----- = \$304,538 per hectare
52.872 hectares

Value Estimates Alternative Use No. 2Value for Sanitary Landfill Use by Comparison

In order to estimate the value of subject Property No. 1 for Sanitary landfill purposes, I made a search for such properties and the only arms length sale found of a licenced land fill site, was the acquisition of the Maple Landfill Site by the Municipality of Metropolitan Toronto. The details of this acquisition are as follows:-

Agreement Date - September 1, 1981
Vendor - Superior Sand and Gravel Limited
Purchaser - Municipality of Metropolitan Toronto
Sale price - \$38,000,000
Location - N/S Major Mackenzie Road,
west of Dufferin Street,
N/S Teston Road, west of Dufferin Street
Town of Vaughan

Site Size - 245 acre licenced landfill area
100 acres buffer
205 acres clay source

550 acres

Site capacity - \$20,000,000 tons
Unit price - \$69,091 per acre
- \$1.90 per ton

Remarks

Metropolitan Toronto entered into an agreement of purchase and sale to purchase 550 acres from Superior Sand and Gravel Limited for \$38,000,000 in September 1981. The purchase was conditional upon provincial approval of the transfer of a dumping licence from Waste Management Inc. to Superior Sand and Gravel Limited and then Metropolitan Toronto.

Restrictive covenants prohibit the development of the adjoining 383 acres extending to Major Mackenzie Drive for 99 years.

The vendors were to meet several other conditions involving sizable capital expenditures, including construction of a barrier seal to prevent leaching from the existing pit north of Teston Road.

Metro anticipated it would have to spend another \$29,000,000 in developing the site for their use, including lining the dump site, a purge system, a leachate collection system, odour control, monitoring, landscaping and engineering.

The 550 acres was made up of:-

- 245 acres with a landfill licence for about 20 million tons.
- 100 acres adjoining for buffer
- 205 acres in Arrowdale pit north of Teston Road from which clay will be removed to form a liner for the dump site.

Norm Goodhead, the president of the various companies involved in the Vaughan-Maple landfill site, estimated that the hearing process, as at June 1978, had cost his firm somewhere in the area of \$2,000,000. In order to be compared with subject, the sale and resultant unit price must be adjusted for the completed approval process, as well as the different reversionary values of the two sites.

The capacity of this site on an acreage basis is:-

$$\frac{20,000,000 \text{ tons}}{550 \text{ acres}} = 36,364 \text{ tons per acre}$$

The capacity of the proposed landfill use of subject Property No. 1 was estimated by N.S.P.'s consultants, in their original application (Exhibit H-313) to be:-

$$\frac{1,734,950 \text{ tons}}{182.464 \text{ acres}} = 9,508 \text{ tons per acre}$$

The relevant unit of comparison is therefore the unit price per ton of capacity and not the price per acre.

Sale price=\$38,000,000

Less

Reported cost of completed approval process	= \$2,000,000	
Reversionary value of site		
Present value of 550 acres @ \$2,500 per acre		
= \$1,375,000 discounted for 20 years @ 9%		
(P.V. factor = 0.1784309)	=	<u>245,342</u> <u>2,245,342</u>

Adjusted sale price = \$35,754,658

\$35,754,658 = \$1.788 per ton
20,000,000 tons

1,734,950 tons of capacity in
 subject Property No. 1 @
 \$1.788 per ton = \$3,102,091

Add

Time adjustment
 (utilizing 1988 and
 1981 tipping fees)
 $\frac{\$50.00}{\$10.42} = + 379.8\% = 11,781,741$
 \$10.42
 Assumed cost of approval
 process to date = 500,000
 Present value of
 reversionary interest
 in site in 15 years
 discounted @ 9% p.a.
 (as estimated earlier) = 216,273 = 12,498,014

Estimated value of the Regional
 requirement from subject Property
 No. 1 for sanitary landfill use by the
 comparative or market data approach = \$15,600,105

$\frac{\$15,600,105}{130.645 \text{ acres}} = \$119,408 \text{ per acre}$

$\frac{\$15,600,105}{52.872 \text{ hectare}} = \$295,054 \text{ per hectare}$

Value Estimates Alternative Use No. 2Summary and Final Estimate of Section 14 Cost to Region of Regional Requirement from Subject Property No. 1

If the highest and best use of subject Property No. 1 is determined to be for landfill use, but is restricted in size and capacity to that identified and applied for by the owners and their consultants in their original application for a certificate of approval for a waste disposal site (landfill) (Exhibit H-313), the Section 14 cost to the Region of the Regional requirement (proposed taking) from subject Property No. 1 is estimated to be:-

- 1) for sanitary landfill by the income approach
 - a) assuming a 7 year life = \$30,622,483
 - b) assuming a 15 year life = \$16,101,525
- 2) for sanitary landfill use by comparison = \$15,600,105

The various assumptions made and approaches to value utilized, indicate a value range from a low of \$15,600,000 to a high of \$30,622,000.

The income approach indicates a value range for subject Property No. 1 of \$16,102,000 to \$30,622,000.

The comparative or market data approach indicates a value for subject Property No. 1 of \$15,600,000.

The low of \$15,600,000 is based upon a six year old sale of a licenced sanitary land fill site adjusted upwards for time and major differences.

The high of \$30,622,000 is based upon an income approach, which assumed a 7 year life for the site which was dependent upon receiving 100% of the Region's land fill (as estimated by N.S.P.'s consultants) over that 7 year period.

The median value of \$16,102,000 was based upon an income approach which assumed a 15 year life.

All of these values were based upon a sanitary land fill use of the Regional requirement (proposed taking) from subject Property No. 1 and assume approval and licencing for such use is in place, but are after deduction of the assumed costs to complete the approval process.

If the highest and best use of subject Property No. 1 is determined to be for landfill use, but is restricted in size and capacity to that identified and applied for by the owners and their consultants in their original application for a certificate of approval for a waste disposal site (landfill) (Exhibit H-313), it is my opinion that the current market value of the Regional requirement (proposed taking) from subject Property No. 1, or more properly the Section 14 cost to the Region of Halton, to acquire the same in connection with their acquisition of Site F for sanitary landfill purposes is:-

TWENTY- THREE MILLION DOLLARS

(\$23,000,000)

$$\frac{\$23,000,000}{130.645 \text{ acres}} = \$176,050 \text{ per acre}$$

$$\frac{\$23,000,000}{52.872 \text{ hectares}} = \$435,013 \text{ per hectare}$$

Value Estimates Alternative Use 3

- 1) Assumed short life (224,800 tonnes p.a.):-

CAPACITY AND SITE LIFE

<u>Cell No.</u>	<u>Area (Hectares)</u>	<u>Capacity (tonnes)</u>	<u>Years to Complete</u>
1	4.04	191,300	0.85
2	4.52	474,600	2.11
3	2.53	194,320	0.86
4	3.09	324,500	1.44
5	6.70	703,500	3.13
6	6.00	628,100	2.79
7	<u>9.00</u>	<u>675,100</u>	<u>3.00</u>
Total	35.88	3,191,420	14.18

TIPPING FEE

Having regard to the current value date, the highly publicized shortage of landfill sites in Southern Ontario and particularly the Golden Horseshoe, and the problems and time constraints in obtain new sites and particularly Metropolitan Toronto and the Region of Halton's well publicized waste disposal crisis, there is no longer any need to be competitive and a tipping fee of \$50.00 per ton is selected.

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1) Assumed short life (224,800 tonnes p.a.):-

Projected gross income		
224,800 tonnes p.a. @ \$50.00/tonne		=\$11,240,000 p.a.
Less		

Operating costs		
224,800 @ \$8.00 per tonne	=\$1,798,400 p.a.	
Leachate treatment	= \$35,000 p.a.	
Contingency operations	= \$25,000 p.a.	
Monitoring	= \$60,000 p.a.	
Administration/mgmt	= \$131,500 p.a.	
Misc. capital costs	= \$80,000 p.a.	=\$2,129,900 p.a.
	-----	-----
Net income before		
financing and recapture		= \$9,110,100 p.a.

Present value of \$9,110,100 p.a. paid
 \$759,175 per month for 14.2 years compounded
 @ 15% (9% rate + 3% risk + 3% profit) per
 annum paid monthly in arrears
 P.V. factor = 70.36666 \$53,420,614

Add

Present value of reversionary
 interest in land in 14.2 years
 discounted @ 9% p.a.
 Section 45 land
 115 acres @ \$3,000 per acre = \$345,000
 Special Complementary
 Use land
 67.464 acres @ \$10,000 per acre = \$674,640
 T-MR1 land
 6.544 acres @ \$18,750 per acre = \$122,700

 \$1,142,340

P.V. factor for 14.2
 years @ 9% x 0.294133 = \$336,000

 Indicated capital value = \$53,756,614

Less

 Initial site preparation = \$3,822,000
 Initial clay liner costs = \$658,000
 Present value of leachate
 collection system cell
 expansion
 12.6% of \$887,385 x 115% x 115% =
 \$147,869 deferred 0.85 years @ 9%
 P.V. factor = 0.9293675 = \$137,425
 7.1% of \$887,385 x 115% x 115% =
 \$83,323 deferred 2.96 years @ 9%

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P.V. factor =	0.7748499	=	\$64,563	
8.6% of \$887,385 x 115% x 115% =				
\$100,927 deferred 3.82 years @ 9%				
P.V. factor =	0.7195	=	\$72,617	
18.6% of \$887,385 x 115% x 115% =				
\$218,283 deferred 5.26 years @ 9%				
P.V. factor =	0.6355308	=	\$138,726	
16.7% of \$887,385 x 115% x 115% =				
\$195,986 deferred 8.39 years @ 9%				
P.V. factor =	0.4852792	=	\$95,108	
25.1% of \$887,385 x 115% x 115% =				
\$294,565 deferred 11.18 years @ 9%				
P.V. factor =	0.3815678	=	\$112,397	
Present value of clay liner for cell expansion				
12.6% of \$5,846,000 =				
\$736,596 deferred 0.85 years @ 9%				
P.V. factor =	0.9293675	=	\$684,568	
7.1% of \$5,846,000 =				
\$415,066 deferred 2.96 years @ 9%				
P.V. factor =	0.7748499	=	\$321,614	
8.6% of \$5,846,000 =				
\$502,756 deferred 3.82 years @ 9%				
P.V. factor =	0.7195	=	\$361,733	
18.6% of \$5,846,000 =				
\$1,087,356 deferred 5.26 years @ 9%				
P.V. factor =	0.6355308	=	\$691,048	
16.7% of \$5,846,000 =				
\$976,282 deferred 8.39 years @ 9%				
P.V. factor =	0.4852792	=	\$473,769	
25.1% of \$5,846,000 =				
\$1,467,346 deferred 11.18 years @ 9%				
P.V. factor =	0.3815678	=	\$559,892	
Present value of site closure costs =	\$1,973,400			
x 115% x 115% =	\$2,609,822			
deferred 14.2 years @ 9% p.a.				
P.V. factor =	0.294133	=	\$767,635	
Cost to complete approval process, say		=	\$1,500,000	=\$10,461,094

Indicated value of National Sewer Pipe's revised Sanitary Landfill application inclusive of the lands remaining (20.971 hectares/51.819 acres) and the T-MR1 North Service Road frontage lands (2.648 hectares/6.544 acres)				=\$43,295,520

Less

Value of 51.819 acres of lands

remaining for Special Complementary

Parkway Belt Use @ \$12,500 per acre = \$647,738

Value of 6.544 acres of T-MR1 North

Service Road frontage lands @ \$12,500

per acre x 150% = \$122,700 = \$770,438

Indicated value of Regional requirement from
 subject Property No. 1 (N.S.P. lands) based
 upon their revised application for a certificate
 of approval for a waste disposal site (landfill)
 (Exhibit H-299) amended to reflect only lands
 owned by N.S.P.

=\$42,525,082

\$42,525,082

----- =

\$325,501 per acre

130.645 acres

\$42,525,082

----- =

\$804,303 per hectare

52.872 hectares

Value Estimates Alternative Use No. 3

2) Assumed extended life (104,907 tonnes p.a.):-

CAPACITY AND SITE LIFE

<u>Cell No.</u>	<u>Area (Hectares)</u>	<u>Capacity (tonnes)</u>	<u>Years to Complete</u>
1	4.04	191,300	1.82
2	4.52	474,600	4.52
3	2.53	194,320	1.85
4	3.09	324,500	3.09
5	6.70	703,500	6.71
6	6.00	628,100	5.99
7	<u>9.00</u>	<u>675,100</u>	<u>6.44</u>
Total	35.88	3,191,420	30.42

TIPPING FEE

Having regard to the current value date, the highly publicized shortage of landfill sites in Southern Ontario and particularly the Golden Horseshoe, and the problems and time constraints in obtain new sites and particularly Metropolitan Toronto and the Region of Halton's well publicized waste disposal crisis, there is no longer any need to be competitive and a tipping fee of \$50.00 per ton is selected.

1) Assumed extended life (104,907 tonnes p.a.):-

Projected gross income		
104,907 tonnes p.a. @ \$50.00/tonne		= \$5,245,350 p.a.
Less		

Operating costs		
104,907 @ \$8.00 per tonne	= \$839,256 p.a.	
Leachate treatment	= \$35,000 p.a.	
Contingency operations	= \$25,000 p.a.	
Monitoring	= \$60,000 p.a.	
Administration/mgmt	= \$131,500 p.a.	
Misc. capital costs	= \$80,000 p.a.	= \$1,170,756 p.a.
	-----	-----
Net income before		
financing and recapture		= \$4,074,594 p.a.

Present value of \$4,074,594 p.a. paid
 \$339,550 per month for 30.42 years compounded
 @ 15% (9% rate + 3% risk + 3% profit) per
 annum paid monthly in arrears
 P.V. factor = 79.14160 \$26,872,492

Add

 Present value of reversionary
 interest in land in 30.42 years
 discounted @ 9% p.a.
 Section 45 land
 115 acres @ \$3,000 per acre = \$345,000
 Special Complementary
 Use land
 67.464 acres @ \$10,000 per acre = \$674,640
 T-MR1 land
 6.544 acres @ \$18,750 per acre = \$122,700

 \$1,142,340

P.V. factor for 30.42
 years @ 9% x 0.0726919 = \$83,039

 Indicated capital value = \$26,955,531

Less

 Initial site preparation = \$3,822,000
 Initial clay liner costs = \$658,000
 Present value of leachate
 collection system cell
 expansion
 12.6% of \$887,385 x 115% x 115% =
 \$147,869 deferred 1.82 years @ 9%
 P.V. factor = 0.8548379 = \$126,404

DAVIS, HICKS & O'BRIEN LIMITED

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7.1% of \$887,385 x 115% x 115% =		
\$83,323 deferred 6.34 years @ 9%		
P.V. factor = 0.5790499	=	\$48,248
8.6% of \$887,385 x 115% x 115% =		
\$100,927 deferred 8.19 years @ 9%		
P.V. factor = 0.4937157	=	\$49,829
18.6% of \$887,385 x 115% x 115% =		
\$218,283 deferred 11.28 years @ 9%		
P.V. factor = 0.3782937	=	\$82,575
16.7% of \$887,385 x 115% x 115% =		
\$195,986 deferred 17.99 years @ 9%		
P.V. factor = 0.2121765	=	\$41,584
25.1% of \$887,385 x 115% x 115% =		
\$294,565 deferred 23.98 years @ 9%		
P.V. factor = 0.126623	=	\$37,299
Present value of clay liner for cell expansion		
12.6% of \$5,846,000 =		
\$736,596 deferred 1.82 years @ 9%		
P.V. factor = 0.8548379	=	\$629,670
7.1% of \$5,846,000 =		
\$415,066 deferred 6.34 years @ 9%		
P.V. factor = 0.5790499	=	\$240,344
8.6% of \$5,846,000 =		
\$502,756 deferred 8.19 years @ 9%		
P.V. factor = 0.4937157	=	\$248,219
18.6% of \$5,846,000 =		
\$1,087,356 deferred 11.28 years @ 9%		
P.V. factor = 0.3782937	=	\$411,340
16.7% of \$5,846,000 =		
\$976,282 deferred 17.99 years @ 9%		
P.V. factor = 0.2121765	=	\$207,144
25.1% of \$5,846,000 =		
\$1,467,346 deferred 23.98 years @ 9%		
P.V. factor = 0.126623	=	\$185,800
Present value of site closure costs = \$1,973,400		
x 115% x 115% = \$2,609,822		
deferred 30.42 years @ 9% p.a.		
P.V. factor = 0.0726919	=	\$189,713
Cost to complete approval process, say	= \$1,500,000	= \$8,478,169
Indicated value of National Sewer Pipe's revised Sanitary Landfill application inclusive of the lands remaining (20.971 hectares/51.819 acres) and the T-MR1 North Service Road frontage lands (2.648 hectares/6.544 acres)		= \$18,477,362

Less

Value of 51.819 acres of lands

remaining for Special Complementary

Parkway Belt Use @ \$12,500 per acre = \$647,770

Value of 6.544 acres of T-MR1 North

Service Road frontage lands @ \$12,500

per acre x 150% = \$122,770 = \$770,438

Indicated value of Regional requirement from
 subject Property No. 1 (N.S.P. lands) based
 upon their revised application for a certificate
 of approval for a waste disposal site (landfill)
 (Exhibit H-299) amended to reflect only lands
 owned by N.S.P. on an extended life basis

=\$17,706,925

\$17,706,925

----- = \$135,535 per acre

130.645 acres

\$17,706,925

----- = \$334,902 per hectare

52.872 hectares

Value Estimates Alternative Use No. 3Value for Sanitary Landfill Use by Comparison

In order to estimate the value of subject Property No. 1 for Sanitary landfill purposes, I made a search for such properties and the only arms length sale found of a licenced land fill site, was the acquisition of the Maple Landfill Site by the Municipality of Metropolitan Toronto. The details of this acquisition are as follows:-

Agreement Date - September 1, 1981

Vendor - Superior Sand and Gravel Limited

Purchaser - Municipality of Metropolitan Toronto

Sale price - \$38,000,000

Location - N/S Major Mackenzie Road,
west of Dufferin Street,
N/S Teston Road, west of Dufferin Street
Town of Vaughan

Site Size - 245 acre licenced landfill area

100 acres buffer

205 acres clay source

550 acres

Site capacity - \$20,000,000 tons

Unit price - \$69,091 per acre

- \$1.90 per ton

Remarks

Metropolitan Toronto entered into an agreement of purchase and sale to purchase 550 acres from Superior Sand and Gravel Limited for \$38,000,000 in September 1981. The purchase was conditional upon provincial approval of the transfer of a dumping licence from Waste Management Inc. to Superior Sand and Gravel Limited and then Metropolitan Toronto.

Restrictive covenants prohibit the development of the adjoining 383 acres extending to Major Mackenzie Drive for 99 years.

The vendors were to meet several other conditions involving sizable capital expenditures, including construction of a barrier seal to prevent leaching from the existing pit north of Teston Road.

Metro anticipated it would have to spend another \$29,000,000 in developing the site for their use, including lining the dump site, a purge system, a leachate collection system, odour control, monitoring, landscaping and engineering.

The 550 acres was made up of:-

- 245 acres with a landfill licence for about 20 million tons.
- 100 acres adjoining for buffer
- 205 acres in Arrowdale pit north of Teston Road from which clay will be removed to form a liner for the dump site.

Norm Goodhead, the president of the various companies involved in the Vaughan-Maple landfill site, estimated that the hearing process, as at June 1978, had cost his firm somewhere in the area of \$2,000,000. In order to be compared with subject, the sale and resultant unit price must be adjusted for the completed approval process, as well as the different reversionary values of the two sites.

The capacity of this site on an acreage basis is:-

$$\frac{20,000,000 \text{ tons}}{550 \text{ acres}} = 36,364 \text{ tons per acre}$$

The capacity of the proposed landfill use of subject Property No. 1 was estimated by N.S.P.'s consultants in their revised application (Exhibit H-299) as amended by me to reflect the lands actually owned by N.S.P., to be:-

$$\frac{3,191,420 \text{ tons}}{182.464 \text{ acres}} = 17,491 \text{ tons per acre,}$$

The relevant unit of comparison is therefore the unit price per ton of capacity and not the price per acre.

$$\text{Sale price} = \$38,000,000$$

Less

$$\begin{array}{l} \text{Reported cost of completed} \\ \text{approval process} \end{array} = \$2,000,000$$

Reversionary value of
site

$$\begin{array}{l} \text{Present value of 550} \\ \text{acres @ \$2,500 per acre} \\ = \$1,375,000 \text{ discounted} \\ \text{for 20 years @ 9\%} \end{array}$$

$$(\text{P.V. factor} = 0.1784309) = \underline{245,342} \quad \underline{2,245,342}$$

$$\text{Adjusted sale price} = \underline{\underline{\$35,754,658}}$$

$$\frac{\underline{\$35,754,658}}{20,000,000 \text{ tons}} = \$1.788 \text{ per ton}$$

3,191,420 tons of capacity in
 subject Property No. 1 @
 \$1.788 per ton = \$5,706,259

Add

Time adjustment
 (utilizing 1988 and
 1981 tipping fees)
 $\frac{\$50.00}{\$10.42} = + 379.8\% = 21,672,371$
 $\$10.42$
 Assumed cost of approval
 process to date = 500,000
 Present value of
 reversionary interest
 in site in 30.42 years
 discounted @ 9% p.a.
 (as estimated earlier) = 83,039 = 22,255,410
 \$27,961,669

Less

Value of 51.819 acres of
 lands remaining not
 included in proposed
 taking @ \$12,500 per acre = \$647,738
 Value of 6.544 acres of
 T-MR1 land in above but
 not in the proposed
 taking @ \$12,500 per acre
 x 150% = 122,700 = \$ 770,438

Estimated value of the Regional
 requirement from subject Property
 No. 1 for sanitary landfill use by the
 comparative or market data approach = \$27,191,231

\$27,191,231 = \$208,131 per acre
 130.645 acres

\$27,191,231 = \$514,284 per hectare
 52.872 hectare

Value Estimates Alternative Use No. 3Summary and Final Estimate of Section 14 Cost to Region of Regional Requirement from Subject Property No. 1

If the highest and best use of subject Property No. 1 is determined to be for landfill use, with the size and capacity identified and applied for by the owners and their consultants in their revised application for a certificate of approval for a waste disposal site (landfill) (Exhibit H-299), the value of the Regional requirement (proposed taking) from subject Property No. 1 is estimated to be:-

- 1) for sanitary landfill by the income approach
 - a) assuming a 7 year life = \$42,525,082
 - b) assuming a 15 year life = \$17,706,925
- 2) for sanitary landfill use by comparison = \$27,191,231

The various assumptions made and approaches to value utilized, indicate a value range from a low of \$17,707,000 to high of \$42,525,000.

The income approach indicates a value range for subject Property No. 1 of \$17,707,000 to \$42,525,000.

The comparative or market data approach indicates a value for subject Property No. 1 of \$27,191,000.

The median of \$27,191,000 is based upon a six year old sale of a licenced sanitary land fill site adjusted upwards for time and major differences.

The high of \$42,525,000 is based upon an income approach, which assumed a short 14.2 year life for the site which was dependent upon receiving 100% of the Region's land fill (as estimated by N.S.P.'s consultants in April 1982 - Exhibit N-590) over that 14.2 year period.

The low value of \$17,707,000 was based upon an income approach which assumed an extended life of 30.42 years.

All of these values were based upon a sanitary land fill use of the Regional requirement (proposed taking) from subject Property No. 1 and assume approval and licencing for such use is in place, but are after deduction of the assumed costs to complete the approval process.

If the highest and best use of subject Property No. 1 is determined to be for landfill use, with the size and capacity identified and applied for by the owners and their consultants in their revised application for a certificate of approval for a waste disposal site (landfill) (Exhibit H-299), it is my opinion that the October 15, 1987 market value of the Regional requirement (proposed taking) from subject Property No. 1, or more properly the Section 14 cost to the Region of Halton, to acquire the same in connection with their acquisition of Site F for sanitary landfill purposes is:-

TWENTY-SEVEN MILLION TWO HUNDRED THOUSAND DOLLARS

(\$27,200,000)

$$\frac{\$27,200,000}{130.645 \text{ acres}} = \$208,198 \text{ per acre}$$

$$\frac{\$27,200,000}{52.872 \text{ hectares}} = \$514,450 \text{ per hectare}$$

SUMMARY AND FINAL ESTIMATE OF SECTION 14 COST RANGE TO THE REGION
TO ACQUIRE SITE F

The Section 14 cost to the Region of acquiring Site F by expropriation ranges from a low of \$1,035,300 to a high of \$27,395,300 and it's ultimate cost is dependent upon the final determination of the highest and best use of subject Property No. 1 (the N.S.P. lands).

The Section 14 cost to the Region to acquire Site F dependent upon the ultimate determination of subject Property No. 1's (the N.S.P. lands) have been estimated by me, as follows:-

Alternative No.1

If the highest and best use of subject Property No. 1 is determined to be as a holding for future development with low coverage, prestige, industrial development as envisaged by Section 6.2.3 q) of the Parkway Belt West Plan, it is my opinion that the Section 14 cost to the Region to acquire Site F, inclusive of injurious affection resulting from the proposed use of the subject site to the lands remaining but exclusive of that to properties in proximity, the value of lands within the requirement already owned by them, relocation allowances, legal and appraisal costs is:-

ONE MILLION AND THIRTY-FIVE THOUSAND THREE HUNDRED DOLLARS

(\$1,035,300)

which is apportioned amongst the properties making up Site F as follows:-

<u>Property No.</u>	<u>Owner</u>	<u>No. of Acres</u>	<u>Partial Taking</u>	<u>Section 14 Value</u>
1	National Sewer Pipe Limited	130.645	yes	\$840,000
2	Ministry of Government Services	2.024	-	7,080
2A	Ministry of Government Services	2.611	-	5,220
3	Azova Investments Limited	32.441	yes	183,000
4	Region of Halton	16.196	-	N/A
Estimated cost to the Region to acquire Site F		<u>183.917</u>		<u>\$1,035,300</u>

$\frac{\$1,035,300}{183.917 \text{ acres}} = \$5,629 \text{ per acre}$

$\frac{\$1,035,300}{74.431 \text{ hectares}} = \$13,910 \text{ per hectare}$

The effective date of the value estimates is May 5, 1988.

Alternative No.2

If the highest and best use of subject Property No. 1 is determined to be for landfill use, but is restricted in size and capacity to that identified and applied for by the owners and their consultants in their original application for a certificate of approval for a waste disposal site (landfill) (Exhibit H-313), it is my opinion that the Section 14 cost to the Region to acquire Site F, inclusive of injurious affection resulting from the proposed use of the subject site to the lands remaining but exclusive of that to properties in proximity, the value of lands within the requirement already owned by them, relocation allowances, legal and appraisal costs is:-

TWENTY- THREE MILLION ONE HUNDRED AND NINETY-FIVE THOUSAND
THREE HUNDRED DOLLARS

(\$23,195,300)

which is apportioned amongst the properties making up Site F as follows:-

<u>Property No.</u>	<u>Owner</u>	<u>No. of Acres</u>	<u>Partial Taking</u>	<u>Section 14 Value</u>
1	National Sewer Pipe Limited	130.645	yes	\$23,000,000
2	Ministry of Government Services	2.024	-	7,080
2A	Ministry of Government Services	2.611	-	5,220
3	Azova Investments Limited	32.441	yes	183,000
4	Region of Halton	16.196	-	N/A
Estimated cost to the Region to acquire Site F		<u>183.917</u>		<u>\$23,195,300</u>

$\frac{\$23,195,300}{183.917 \text{ acres}} = \$126,118 \text{ per acre}$

$\frac{\$23,195,300}{74.431 \text{ hectares}} = \$311,635 \text{ per hectare}$

The effective date of the value estimates is May 5, 1988.

Alternative No.3

If the highest and best use of subject Property No. 1 is determined to be for landfill use, with the size and capacity identified and applied for by the owners and their consultants in their revised application for a certificate of approval for a waste disposal site (landfill) (Exhibit H-299), it is my opinion that the Section 14 cost to the Region to acquire Site F, inclusive of injurious affection resulting from the proposed use of the subject site to the lands remaining but exclusive of that to properties in proximity, the value of lands within the requirement already owned by them, relocation allowances, legal and appraisal costs is:-

NINE MILLION THREE HUNDRED AND NINETY-FIVE THOUSAND
THREE HUNDRED DOLLARS

(\$27,395,300)

which is apportioned amongst the properties making up Site F as follows:-

<u>Property No.</u>	<u>Owner</u>	<u>No. of Acres</u>	<u>Partial Taking</u>	<u>Section 14 Value</u>
1	National Sewer Pipe Limited	130.645	yes	\$27,200,000
2	Ministry of Government Services	2.024	-	7,080
2A	Ministry of Government Services	2.611	-	5,220
3	Azova Investments Limited	32.441	yes	183,000
4	Region of Halton	16.196	-	N/A
Estimated cost to the Region to acquire Site F		<u>183.917</u>		<u>\$27,395,300</u>

$\frac{\$27,395,300}{183.917 \text{ acres}} = \$148,955 \text{ per acre}$

$\frac{\$27,395,300}{74.431 \text{ hectares}} = \$368,063 \text{ per hectare}$

The effective date of the value estimates is May 5, 1988.