

Proposal for Engineering Services
for the Amendment to the
Engineer's Report for the
Pilon Municipal Drain
City of Clarence-Rockland

Prepared For:



Clarence-Rockland

Prepared By:

Robinson Consultants Inc.
Consulting Engineers

Our Proposal No. 4269
August 2018

August 20, 2018

City of Clarence-Rockland
1560 Laurier Street,
Rockland, ON K4K 1P7

Attention: **Mr. Eric Leroux**
 Drainage Superintendent

Reference: **Proposal for the Amendment of the Engineer's**
 Report for the Pilon Municipal Drain,
 City of Clarence-Rockland
 Our Proposal No. 4269

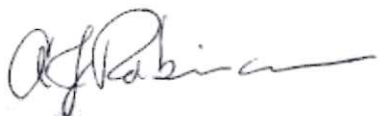
Dear Sir:

We are enclosing our proposal to provide engineering services for an amendment to the Engineer's Report for the Pilon Municipal Drain, City of Clarence-Rockland to accommodate the proposed development of lands in the drainage basin. Although the extent of effort required is not well developed, the estimate of fees has been determined based on our present understanding of the requirements and the information that will be provided by the developer and the City.

If you have any questions, please feel free to contact me at 592-6060 extension 104.

Yours very truly,

ROBINSON CONSULTANTS INC.



A.J. Robinson, P.Eng.
Chairman

AJR:plw

TABLE OF CONTENTS

1.0 INTRODUCTION..... 1

2.0 RESOURCES AND EXPERIENCE OF THE FIRM 1

3.0 TEAM MEMBERS 1

4.0 UNDERSTANDING OF OBJECTIVES 2

5.0 APPROACH AND METHODOLOGY 3

6.0 LEVEL OF EFFORT AND FEE ESTIMATE 5

7.0 FEES 5

8.0 CONTRACTUAL ACKNOWLEDGMENT 6

LIST OF APPENDICES

Appendix A Figure 1 Typical Drainage Projects

Appendix B Figure 2 Level of Effort and Fee Estimate

Appendix C Terms of Engagement

1.0 INTRODUCTION

This submission has been prepared by Robinson Consultants Inc. to provide engineering services for an amendment to the Engineer's Report under Section 78 of the Drainage Act for the Pilon Municipal Drain. The amendment to the Engineer's Report for the Municipal Drain will be completed to accommodate changes in land use for a portion of the lands to accommodate the RDV Trillium Development (the development) and if required to modify the drain to accommodate the proposed development. This proposal has been prepared to provide the information on the approach to be taken with the understanding that certain information will be provided by the developer and the City.

2.0 RESOURCES AND EXPERIENCE OF THE FIRM

Robinson Consultants Inc. (RCI), an Ottawa based firm has been providing engineering services to public and private sector clients for over 40 years. Our clients vary from small municipalities, to the City of Ottawa and the Federal Government. Robinson Consultants Inc. has completed in excess of one hundred (100) Municipal Drains under the Drainage Act, as well as additional projects for maintenance and/or assessment on existing drains. Related projects completed under the Drainage Act, which demonstrate our past experience, are shown on Figure 1 in Appendix A.

3.0 TEAM MEMBERS

The key personnel assigned to this project are listed below. Each of the staff members listed will be made available to commit the time required to complete the amendment and related services.

Andy Robinson, P.Eng., will be the **Drainage Engineer (Principal)** on this project. He has over 40 years of experience completing Engineer's Reports under provisions of the Drainage Act. His role on this project will be client liaison, coordination of the study team and reviewing the ongoing progress, project cost control and completing the final report. He has been involved with more than one hundred(100) municipal drain projects, including the Dowdall, Monahan Creek, Arbuckle, David Adams, Faulkner, Van Gaal and South Cyrville Municipal Drains in the City of Ottawa; Lower Moose Creek and Zeb Alguire Branch in the Township of North Stormont; the Robson and Mississippi Municipal Drains in the former Township of West Carleton; the Baxter-McEwen Municipal Drain in the former Township of Rideau; the James Reilly/Dewit-Richter in the Township of Edwardsburgh/Cardinal and the Cambal-Massie in the Township of North Glengarry.

Barbara St-Aubin, MAsc, P.Eng., is a Senior Water Resources Engineer with Robinson Consultants. She has experience in hydraulic and hydrologic modeling and design of water related structures in urban and rural water courses and municipal drains. This experience includes assessment and reporting of flood levels, culverts and channel sizes and erosion protection requirements, as well as floodplain management and water conveyance structures in Central and Eastern Ontario. Barbara will undertake the hydrologic and hydraulic assessment for the project. Recent experience includes the David Adams, Arbuckle, Dowdall, Upper Flowing Creek, Upper Dowdall and Upper Karl Municipal Drains Engineer's Reports, as well as various culvert replacement projects.

Dave Reid, P.Eng., is a Water Resources Engineer with Robinson Consultants Inc. He has experience in hydraulic and hydrologic modelling and design of storm water management facilities and storm sewers on infrastructure projects in the City of Ottawa. His experience also includes storm water management analysis and extensive hydrological and hydraulic modelling for a 640 ha rural and urban area to assess capacity and flooding issues and developing preliminary and final storm water management plans for various urban and rural subdivisions. He will be responsible for completing the HEC-RAS modeling of the existing drainage system and assisting with hydrological modelling and review.

Lorne Franklin, C.E.T., LET, rcca, will be the **Drainage Supervisor** for this project. Lorne is a PEO Licensed Engineering Technologist and has completed the Drainage Superintendent course. He and has worked with Robinson Consultants for eighteen (18) year and has been involved in more than thirty (30) Municipal Drainage projects, including the Faulkner, Van Gaal, Dowdall, and David Adams Municipal Drains in the City of Ottawa, the James Reilly/Dewit-Richter Municipal Drain in the Township of Edwardsburgh/Cardinal, the Central Pittsburgh Municipal Drain in the City of Kingston and the Cambal-Massie Municipal Drain in the Township of North Glengarry. Duties include liaison between the municipality, property owners, government agencies, contractors and representatives of public utilities, assistance with surveying and the preparation of the Engineer's Report and Schedules of Assessments. Duties also include coordination of on-site meetings, surveying, project design, cost estimates and tender preparation. He is also responsible for contract administration and inspection of construction and topographic, floodplain mapping and flow monitoring field surveys.

Justin Phillips, Survey Technician, has ten (10) years of survey experience. His recent experience includes detailed field surveys on fifteen (15) municipal drain projects in 2017/18. He will complete any field survey to supplement available base, LiDAR and aerial mapping as well as plans provided by the developer's engineers.

Ian McKinnon, Chief CADD Designer (CADD1) will coordinate the production of the plans and profiles for the report. Ian has been employed with Robinson Consultants for forty (40) years.

Robin Viebrock will be the **CADD Operator (CADD2)** for preparation of plans, profiles and detail drawings for the project.

4.0 UNDERSTANDING OF OBJECTIVES

- Review the findings of the reports and approvals provided by the developer's engineers. The detailed pre-development and post-development plans of existing and proposed conditions, as well as hydrological modeling of existing and proposed peak flows and flow volumes will be provided by the engineer retained by the development company. We will review the information, but will rely in large part on the expertise of the engineering company completing the work and the detailed review by the City approvals engineers. This will reduce duplication of efforts, and should result in a more timely completion of the Engineer's Report.
- Review relevant background information on the existing watercourse, including but not limited to existing Engineer's Reports, previous correspondence, reports and other background information including any proposed modifications to the existing drain both within the proposed development lands and external to the development.

- Complete a survey check of the existing Pilon Municipal Drain including any modifications to accommodate the proposed development. It is understood that the developer will provide detailed surveys completed for the existing and proposed conditions.
- Liaise with landowners, appropriate government agencies, including the Conservation Authority, the Ministry of Natural Resources and Forestry, the Department of Fisheries and Oceans Canada and the City in order to ensure that the technical and environmental requirements of the proposed drainage works are satisfactory. Alternatively, the developer's engineer will provide all approvals from various agencies for the proposed changes to the drain.
- Conduct all meetings, on-site and otherwise, and public consultation as necessary and as required under the Drainage Act.
- Review the approvals provided by the Conservation Authority (CA) of proposals and plans prepared by the developer's engineers to assess the impact of any proposed improvements or modifications to the drain.
- Complete new assessment schedules for the Pilon Municipal Drain.
- Review the downstream impact to ensure that the drain is taken to a sufficient outlet.
- Prepare and obtain approvals for an amendment of the existing Engineer's Report for the drain, including plans, profiles and assessment schedules.

5.0 APPROACH AND METHODOLOGY

The following sections describe the steps involved in our approach and methodology to ensure the successful completion of the project. This methodology and the associated quality assurance/control measures have been successfully implemented on other Municipal Drain projects.

Background information on the watercourse and modifications will be collected and reviewed prior to the first on-site meeting.

We propose to meet with the City of Clarence-Rockland Drainage Superintendent to confirm the approach and methodology, to discuss the project approach, to obtain all available information regarding the project and to establish the lines of communication to ensure the successful completion of the project. At the meeting we will also discuss the schedule.

An on-site meeting will be held prior to undertaking any other work on the project. The purpose of the on-site meeting is to inform the landowners of the proposal for an amendment to the existing Municipal Drain, to answer any questions, and to obtain information that will be useful in completing the project. Additional meetings will be held with individual landowners if required.

The plans and profiles for the modifications of the drainage system connecting to the existing drain will be provided by the engineer working for the developer. We anticipate that we will not be required to complete a full survey to obtain information on the existing Municipal Drain in order to review the impact of the modifications to the existing watercourse, determine dimensions of culverts or other structures since this information will be provided by the

engineer retained by the developer. However, we will complete a survey check, particularly at structures and other critical locations on the existing or extended drain to obtain additional pertinent information to supplement that provided by the developer's engineer.

The detailed pre-development and post-development plans of existing and proposed conditions, as well as hydrological modeling of existing and proposed peak flows and flow volumes will be provided by the engineer retained by the development company. We will review the information, but will rely in large part on the expertise of the engineering company completing the work and the detailed review by the City approvals engineers. This will reduce duplication of efforts, and should result in a more timely completion of the Engineer's Report.

Any changes to the watershed boundary of the drain will be incorporated into the plans in the existing Engineer's Report for the Municipal Drain. This information, along with existing soils maps, proposed land uses and field survey information will be used in reviewing the hydrologic calculations, flows and hydraulic design of the drain.

Using the completed base mapping, and after establishing the key design parameters, we will proceed with the overall assessment plan including the detail drawing and profile design provided by the developer's engineer and any downstream modifications up to a 90% completion level. At the 90% completion stage we will submit the design drawings for review by the City's Drainage Superintendent. The comments received will be incorporated into the final drawings.

Assessment Schedules for distribution of the costs for future maintenance will be completed. These schedules, including charges to individual landowners, are generally the most contentious part of the Engineer's Report, therefore, close attention to detail and experience in completing them are both very important. It is intended that Block Assessments will be used for existing and proposed urban development areas where appropriate. It is understood that all cost associated with the amended Engineer's Report, construction of the required modifications and other associated costs will be assessed to the property owner of the proposed development area and that provision for completing the work or payment of other costs, including the Engineer's Report will be included in the subdivision agreement.

The amendment to the existing Engineer's Report, including plans, profiles, cost estimates and assessment schedules will be completed in draft form. The draft report will be circulated to the City and the Conservation Authority for review. The Conservation Authority (CA) is the reviewing agency for the Conservation Authorities Act, (Ontario Regulation 174/06, the Development, Interference with Wetlands and Alterations to Watercourses and Shorelines). We will rely upon the submissions under the Federal Fisheries Act to the Department of Fisheries and Oceans (DFO) and the Species at Risk Act to the Ministry of Natural Resources and Forestry (MNR) completed by the engineer for the developer. Robinson Consultants believes that it is very prudent to obtain approval and any conditions under both of these Acts prior to publishing the final Engineer's Report.

Any special studies or designs to satisfy the requirements of the Conservation Authority, Fisheries and Oceans, Ministry of Natural Resources and Forestry or other agencies are beyond the scope of this assignment.

Comments or conditions received from the City and Conservation Authority, as a result of the circulation, will be assessed and where appropriate, will be incorporated in the final amendment of the Engineer's Report.

We will provide the City with up to ten (10) copies of the final report for internal circulation as well as copies for each assessed landowner, utility or road authority.

Once a date has been set for the meeting to consider the report, the City will mail a copy of the notice along with the report to the affected landowners, utilities and road authorities.

Robinson Consultants will present the findings of the Amendment to the Engineer's Report at the meeting to consider the report, and will be available to clarify any information and to answer questions. The Drainage Act has a requirement for a Court of Revision to hear any appeals of assessment from landowners. Robinson Consultants will attend the Court of Revision to discuss the method of assessment and to answer any questions which may arise.

There are provisions in the Drainage Act for assessed landowners to appeal to the Referee (on legal issues) and to the Tribunal (on assessment and technical issues). We have not made an allowance in the Fees for any such appeals.

If there are no appeals after the prescribed time in the Drainage Act, the Council gives the Bylaw a 3rd reading. Once the Bylaw has received the 3rd reading, construction of modifications and extension of the drain can be completed.

We have not made any provision for preparation of a contract document, assistance during tendering or surveying and inspection during construction. Once the extent of the work is known, we can furnish the City with a fee proposal.

All correspondence and draft and final Engineer's Report will be completed in English.

6.0 LEVEL OF EFFORT AND FEE ESTIMATE

The level of effort will be dictated by the amount and completeness of information received from the developer's engineer, and the timing of receipt of information and approvals will largely dictate the schedule. However, we have provided a proposed Level of Effort and Fee Estimate on Figure 2 in Appendix B.

7.0 FEES

We will bill for our services on a monthly bases using our standard billing rates for this project.

We estimate that the fees for this project should not exceed **\$63,495.00**, excluding HST. If there are extensive investigations and design of mitigation measures for fisheries or other unknown environmental issues, or if the amendment of the Engineer's Report is referred to the Tribunal or Referee, this is a Scope Change and it will be necessary to increase the total fees and disbursements. If required we will seek City of Clarence-Rockland approval for additional fees at that time.

The fees do not include an amount for preparation of contract documents or for field services during construction.

8.0 CONTRACTUAL ACKNOWLEDGMENT

Robinson Consultants Inc. is prepared to undertake this project in accordance with the Terms of Engagement included in Appendix C.

Appendix A

Figure 1

Typical Municipal Drainage Projects

TYPICAL MUNICIPAL DRAINAGE PROJECTS



Client	Project	Type of Work	Location of Work	Date Completed
City of Ottawa	Monahan Creek Municipal Drain	Engineer's Report	Kanata/Goulbourn	2014
Township of North Stormont	Cambal-Massie Municipal Drain	Engineer's Report	North Stormont	2014
City of Ottawa	O'Keefe Municipal Drain	Engineer's Report	Barrhaven Ward	2015
City of Ottawa	David Adams Municipal Drain	Engineer's Report	Rideau Ward	2011
City of Ottawa	Arbuckle Municipal Drain	Engineer's Report in Urban Area	Village of Richmond	2010
City of Ottawa	Upper Flowing Creek Municipal Drain	Engineer's Report	Goulbourn Ward	2010
Township of Edwardsburgh/ Cardinal	James Reilly/Dewit-Richter Municipal Drain	Engineer's Report	Edwardsburgh	2006
City of Ottawa	Dowdall Municipal Drain	Engineer's Report	Goulbourn Ward	2010
City of Ottawa	David Adams Municipal Drain	Engineer's Report	Rideau Ward	Ongoing
City of Ottawa	Pana Road Municipal Drain	Engineer's Report	Rideau Ward	2009
City of Ottawa	Wammas Branch Municipal Drain	Relocation Report	Rideau Ward	2005
City of Ottawa	O'Keefe Municipal Drain	Relocation Report	Nepean Ward	2006
City of Kingston	Central Pittsburgh Municipal Drain	Reassessment Report	Kingston	2005
John Campbell	Foster Municipal Drain	Expert Advice	Beckwith Township	2004
City of Ottawa	Monahan Creek Municipal Drain	Engineer's Report	Kanata	2003
Cindy Sauve	W.J. Douglas Municipal Drain	Expert Advice	Champlain Township	2002
City of Ottawa	Faulkner Municipal Drain	Engineer's Report	Stittsville	2003
City of Ottawa	Van Gaal Municipal Drain	Engineer's Report	Village of Richmond	2003
Township of West Carleton	Robson Municipal Drain	Engineer's Report	Amprior	2001

TYPICAL MUNICIPAL DRAINAGE PROJECTS

Client	Project	Type of Work	Location of Work	Date Completed
Township of North Stormont	Moose Creek Municipal Drain	Engineer's Report	Moose Creek	2000
Township of West Carleton	Mississippi Diversion Municipal Drain	Engineer's Report	South of Amprior	2000
Township of Russell	Pana Road Municipal Drain	Engineer's Report	Boundary and Pana Roads	1998
Township of Rideau	Baxter-McEwen Municipal Drain	Engineer's Report	Rideau Township	1997
City of Gloucester	South Cyrville Municipal Drain	Engineer's Report	South of Hwy. 417	1996
Township of Roxborough	Zeb Alguire Branch	Engineer's Report	South of Avonmore	1995
Township of South Gower	Arcand Municipal Drain	Engineer's Abandonment Report	South Gower Township	1993
Township of South Gower	Eager Municipal Drain	Maintenance	South Gower Township	1992
Township of Rideau	John Taylor Municipal Drain	Maintenance	Rideau Township	1992
Township of South Gower	Arcand Municipal Drain	Engineer's Report	South Gower Township	1991
Township of Rideau	Wright Eastman Municipal Drain	Maintenance	Rideau Township	1991
Raisin Region Conservation Authority	Eastman Municipal Drain	Engineer's Report	Cornwall	1989
Township of Rideau	John Paden Municipal Drain	Engineer's Report	Rideau Township	1986/1998
Township of Rideau	Mud Creek Municipal Drain	Engineer's Report	Rideau Township	1983
Township of Rideau	McCordick-Pratt Municipal Drain	Engineer's Report	Rideau Township	1981
Township of Goulbourn	Dowdall Municipal Drain	Engineer's Report	Dwyer Hill Road	1978

Appendix B

Figure 2 Level of Effort And Fee Estimate

FIGURE 2 - LEVEL OF EFFORT AND FEE ESTIMATE

PILON MUNICIPAL DRAIN AMENDMENT	Staff							Total	RCI							Total	
	RCI								\$220.00	\$115.00	\$195.00	\$150.00	\$145.00	\$115.00	\$70.00		
	AJR	LF	BSA	DR-ENG	CA	FS	SU		AJR	LF	BSA	DR-ENG	CA	FS	SU		
BACKGROUND REVIEW, CLIENT & ON-SITE MEETINGS																	
Background Review	4	8			4			16	\$ 880.00	\$ 920.00			\$ 580.00			\$ 2,380.00	
Meetings with City & Developers Representatives	4	8						12	\$ 880.00	\$ 920.00						\$ 1,800.00	
On-Site Meeting	4	8						12	\$ 880.00	\$ 920.00						\$ 1,800.00	
								0								\$ -	
ASSESSMENT OF MODIFICATIONS																	
Collect, Review and Assess Existing Project Information	2	8						10	\$ 440.00	\$ 920.00						\$ 1,360.00	
Confirm Area of Land Use Change & Watershed Boundaries	2	8			4			14	\$ 440.00	\$ 920.00			\$ 580.00			\$ 1,940.00	
Hydrology & Hydraulic Calculations & Review of Reports	1	4	4	40				49	\$ 220.00	\$ 460.00	\$ 780.00	\$ 6,000.00				\$ 7,460.00	
Prepare Plan of Affected Area	1	2			8			11	\$ 220.00	\$ 230.00			\$ 1,180.00			\$ 1,610.00	
Contact Approving Agencies	1	8						9	\$ 220.00	\$ 920.00						\$ 1,140.00	
								0								\$ -	
DESIGN MODIFICATIONS INCLUDING PROFILES																	
Check Survey of Existing Drain Including Problem Areas	1	4				32		37	\$ 220.00	\$ 460.00			\$ 3,680.00			\$ 4,360.00	
Confirm Drainage Area and Prepare Plan	1	8			16			25	\$ 220.00	\$ 920.00			\$ 2,320.00			\$ 3,460.00	
Determine the Profile & Cross-section Required	2	8	2	12	32			56	\$ 440.00	\$ 920.00	\$ 390.00	\$ 1,800.00	\$ 4,640.00			\$ 8,190.00	
Quantity Calculations & Engineer's Estimate	2	8						10	\$ 440.00	\$ 920.00						\$ 1,360.00	
Prepare New Assessment Schedules for Drain	2	40				8		50	\$ 440.00	\$ 4,600.00				\$ 560.00		\$ 5,600.00	
								0								\$ -	
DRAFT REPORTING																	
Draft Engineer's Report and Submit for Review	4	16	2	8	2		8	40	\$ 880.00	\$ 1,840.00	\$ 390.00	\$ 1,200.00	\$ 290.00		\$ 560.00	\$ 5,160.00	
Receive Comments and Adjust	1	8					4	13	\$ 220.00	\$ 920.00				\$ 280.00		\$ 1,420.00	
Update Plans & Profiles	1	2			8			11	\$ 220.00	\$ 230.00			\$ 1,180.00			\$ 1,610.00	
REPORTING MEETING TO CONSIDER																	
Prepare Final Report	4	8					8	20	\$ 880.00	\$ 920.00				\$ 560.00		\$ 2,360.00	
Submit to City & Conservation Authority for Review	1	1				2		4	\$ 220.00	\$ 115.00				\$ 140.00		\$ 475.00	
Conservation Authority Permit-Disbursement-\$1500								0								\$ -	
Disbursements-Allow \$3,500								0								\$ -	
Complete Final Report & File	1	8		2	2		2	15	\$ 220.00	\$ 920.00	\$ 300.00	\$ 290.00		\$ 140.00		\$ 1,870.00	
Meeting to Consider	4	4						8	\$ 880.00	\$ 460.00						\$ 1,340.00	
								0								\$ -	
COURT OF REVISION																	
Court of Revision	4	8						12	\$ 880.00	\$ 920.00						\$ 1,800.00	
	47	177	8	62	76	32	32	0	434	\$ 10,340.00	\$ 20,355.00	\$ 1,560.00	\$ 9,300.00	\$ 11,020.00	\$ 3,680.00	\$ 2,240.00	\$ 58,495.00
															\$ 5,000.00	\$ 5,000.00	

RCI - Robinson Consultants Inc.
AJR - Andy Robinson
LF - Lorne Franklin
BSA - Barbara St. Aubin
DR-ENG - Dave Reid/Engineering

CA - CADD Staff
FS - Field Staff/Surveying
SU - Administrative Support Staff

Summary of Phases
Mtg. Background & Assessment of Modifications \$ 19,490.00
Engineer's Report and Meeting to Consider \$ 37,205.00
Court of Revision \$ 1,800.00
Disbursements \$ 5,000.00
Total \$ 63,495.00

Sub-Total \$ 63,495.00
HST \$ 9,254.35
Total \$ 71,749.35

NOTES:
Rates are based on the Standard Billing Rates which are adjusted annually.
Disbursements are based on an estimate of the amount for Disbursements, CA review and Printing of Draft and Final Plans and Reports
Final disbursement amounts for Disbursements, CA review and Printing Costs will only be known when invoices are received and printing is complete

Appendix C

Terms of Engagement

TERMS OF ENGAGEMENT**GENERAL**

The client hereby authorizes Robinson Consultants Inc. (the Consultant), and the Consultant hereby agrees to render the services for the project as specified and defined in the Consultant's Proposal to the client for this project in accordance with the conditions of assignment stated herein. The Consultant may, at its discretion and at any stage, engage sub consultants to perform part of the services.

COMPENSATION

Fees for the services rendered will be in accordance with the Consultant's Proposal, excluding HST that may be levied thereon. Invoices will be due and payable by the Client within thirty (30) days of the date of the invoice without hold back, deduction or set-off unless the Client has notified the Consultant in writing within ten (10) days of receipt of the invoice of any dispute with the invoice. In such case, the Client is entitled to withhold only the amount in dispute, and both parties shall promptly resolve the dispute as detailed below. Interest on overdue accounts is 18 % per annum (1.5 % per month).

Unless the Consultant's Proposal states otherwise, all expenses incurred as part of the Services shall be reimbursed at cost plus five per cent (5 %).

All quotes for fees for the Services are estimates only and may be exceeded provided the Consultant advises the Client in advance and has received the consent of the Client.

If the Consultant is required to perform additional work or change the Services for reasons beyond its control, or by the request of the Client, the Consultant shall be compensated for such additional work or changes in accordance with the Consultant's Proposal or, if the Consultant's Proposal is silent on that issue, then on a basis to be determined and agreed to by both parties at that time.

REPRESENTATIVES

Each party shall designate a representative who is authorized to act on behalf of that party and receive notices under this Agreement.

DATA AND INFORMATION

The Client shall provide to the Consultant all the reports, data, studies, plans, specifications, documents and other information that are relevant to the Services. The Consultant shall be entitled to rely upon the reports, data, studies, plans, specifications, documents and other information provided by the Client or others in performing the Services and the Consultant assumes no responsibility or liability for the accuracy or completeness of such. Client waives any claim against Consultant, and agrees to defend, indemnify and hold Consultant harmless from any claim or liability for injury or loss allegedly arising from errors, omissions or inaccuracies in reports, data, studies, plans, specifications, documents or other information provided to the Consultant by the Client. The Consultant shall be responsible only for the accuracy of the data, interpretations and recommendations it generates or makes.

The Consultant agrees to maintain the confidentiality of information provided by the Client that is marked as confidential and shall not disclose same to any person other than to its sub consultants and those who actually need to know, unless such information is already in the public domain or is required to be disclosed by law. The Client acknowledges and agrees that the Proposal contains highly valuable, sensitive and confidential information (such as its fees, trade secrets or patented methodologies), and agrees to maintain the confidentiality of same, except as may be required to be disclosed by law. Notwithstanding any prevailing laws that may allow disclosure of the Consultant's confidential information, the Client agrees to notify the Consultant in advance of such disclosure.

TERMINATION

Either party may terminate this engagement without cause upon thirty (30) days' notice in writing. On termination by either party under this paragraph, the Client shall forthwith pay to the Consultant its Charges for the Services performed, including all expenses and other charges incurred by the Consultant for this Project.

If either party breaches this engagement, the non-defaulting party may terminate this engagement after giving seven (7) days' notice to remedy the breach. On termination by the Consultant under this paragraph, the Client shall forthwith pay to the Consultant its Charges for the Services performed to the date of termination.

ENVIRONMENTAL

The Consultant's field investigation, laboratory testing and engineering recommendations will not address or evaluate pollution of soil or pollution of groundwater unless evaluation of pollution is expressly indicated in the proposal. The Consultant will co-operate with the Client's environmental consultant during the field work phase of the investigation.

PROFESSIONAL RESPONSIBILITY

In performing the Services, the Consultant will provide and exercise the standard of care, skill and diligence required by customarily accepted professional practices and procedures normally provided in the performance of the Services contemplated in this engagement at the time when and the location in which the Services were performed.

LIMITATION OF LIABILITY

The Consultants shall not be responsible for:

- (a) the failure of a Contractor, retained by the Client, to perform the work required in the Project in accordance with the applicable contract documents;
- (b) the design of, or defects in, equipment supplied or provided by the Client, its Contractor or other third parties or Consultants retained by the Client, for incorporation into the Project;
- (c) any cross-contamination resulting from subsurface investigations;
- (d) any damage to subsurface structures and utilities which were identified and located by the Client;
- (e) any Project decisions made by the Client if the decisions were made without the advice of the Consultant or contrary to or inconsistent with the Consultant's advice;
- (f) any consequential loss, injury or damages suffered by the Client, including but not limited to loss of use, earnings and business interruption;
- (g) the unauthorized distribution of any confidential document or report prepared by or on behalf of the Consultant for the exclusive use of the Client;
- (h) the negligence of third parties or other consultants who may be retained by the Client;
- (i) cost estimates provided by the Consultant for the cost of work of any other party, the accuracy of which cannot be guaranteed;
- (j) use by third parties who rely upon or make decisions based upon the Services.

The total amount of all claims the Client may have against the Consultants under this engagement, including but not limited to claims for negligence, negligent misrepresentation and breach of contract, shall be strictly limited to the amount of any professional liability insurance the Consultant may have available at the time such claims are made.

No claim may be brought against the Consultant in contract or tort beyond the limitation prescribed by law in Ontario or, where permitted by law no more than two (2) years after the Services were completed or terminated under this engagement.

DOCUMENTS

All documents prepared by the Consultant or on behalf of the Consultant in connection with the Project are instruments of service for the execution of the Project. The Consultant retains the property and copyright in these documents, whether the Project is executed or not. These documents may not be used on any other project without the prior written agreement of the Consultant.

FIELD SERVICES

Where applicable, field services recommended for the Project are the minimum necessary to observe whether the work of a contractor retained by the Client is being carried out in general conformity with the intent of the Services. Any reduction from the level of services recommended will result in the Consultant providing a qualified certification for the work.

DISPUTE RESOLUTION

If requested in writing by either the Client or the Consultant, the Client and the Consultant shall attempt to resolve any dispute between them arising out of or in connection with this Agreement by entering into structural non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties. If a dispute cannot be settled within a period of thirty (30) calendar days with the mediator, the dispute shall be referred to and finally resolved by arbitration under the rules of an accredited arbitration centre nearest the location of the Project, which has an expertise in reviewing the dispute in a reasonable time, or by an arbitrator appointed by agreement of the parties. Neither the mediator nor the arbitrator, if appointed, shall in any way be financially interested in the Project or the business of the parties.

