

CONTRACT DOCUMENTS

CONSTRUCTION OF  
DRAPER'S CREEK DETENTION POND  
TOWN OF PELHAM, ONTARIO

Project  
EO 78201                      February 1979

THE PROCTOR AND REDFERN GROUP  
Consulting Engineers and Planners  
110 James Street, St. Catharines, Ontario  
L2R 7E8

GKS/TB  
:tp

CONTRACT DOCUMENTS

CONSTRUCTION OF  
DRAPER'S CREEK DETENTION POND

TOWN OF PELHAM, ONTARIO

Project

EO 78201

February 1979

ADDENDUM NO. 1  
(February 19th, 1979)

This Addendum shall form part of the Contract Documents. The Tenderer shall insert the Addendum behind the cover page of the Contract Documents.

1. Refer to the Tendering Information, page 1, Clause TI.04 - Sales Tax. Revise Clause B and C to read as follows:
  - B. The prices shall exclude provincial sales tax on taxable items.
  - C. The prices shall exclude federal sales tax on taxable items.
2. Refer to the Form of Tender, page 3, Item A.09. Revise this to read "Provide Terrafix 370 RS filter mat ..."
3. Refer to Section 02815. Add the following:

PART 3.08 FILTER MAT

- A. Overlap all joints of the Terrafix filter mat at least 12 inches.
- B. The Engineer will measure the "in place" area for payment purposes.

4. Refer to Section 02590, page 4, Part 3.07 Seeding.  
Delete this item and refer to Seeding and Mulching  
as specified in Section 02815.

PROCTOR & REDFERN LIMITED

TENDERER'S CHECK LIST

Before submitting your tender, check the following points:

1. Has your tender been signed, sealed and witnessed? ☐
2. Have you enclosed the Tender Deposit, i.e. certified cheque or bid bond? (whichever is required by the Contract Documents) ☐
3. Have you enclosed the Agreement to Bond, signed and sealed by your proposed Surety? ☐
4. Have you completed all schedules and prices in the Form of Tender? ☐
5. Have you indicated and included the Contingency Allowance in the Form of Tender? (if you are required to do so) ☐
6. Have you indicated the number of addenda included in the tender price? ☐
7. Have you shown the time for completion of the work? (if applicable) ☐
8. Have you listed your Sub-Contractors? (if applicable) ☐
9. Have you listed your Experience in Similar Work? (if applicable) ☐
10. Have you listed your Senior Staff? (if applicable) ☐
11. Have you listed the Tenderer's Plant? (if applicable) ☐
12. Are the documents complete? ☐

Note: Items 13 and 14 are for Ministry of Transportation and Communication projects only.

13. Have you completed the Qualification Rating and forwarded to the Ministry of Transportation and Communications? (if applicable) ☐
14. Have you enclosed the Form of Tender stamped "For Tendering Purposes Only" (if applicable) ☐

Note: 1. Your tender will be informal and may be disqualified if ANY of the foregoing points (if applicable) have not been complied with.

MAKE SURE THAT YOU SEAL THE TENDER IN AN ENVELOPE AND MARK THEREON THE CONTRACT NAME AND E.O. NUMBER.

Proctor and Redfern Limited  
Form CD-30- February 1973

### LIST OF CONTRACT DOCUMENTS

The following shall form the Contract Documents:

	<u>No. of Pages</u>	<u>Page Colour</u>
Addenda Numbered <u>1</u> to <u>1</u>		Green
Tenderer's Check List	1	Bright Pink
List of Contract Documents	1	Pink
List of Drawings	1	Pink
Tendering Information	2	Blue
Form of Tender	5	Yellow
Agreement	1	White
Agreement to Bond	1	White
Certificate of Insurance	1	White
Bid Bond (CCA Document No. (S)20)	1	White
Performance Bond (CCA Document No. (S)21)	1	White
Labour & Material Bond (CCA Document No. (S)22)	1	White
List of Sub-Contractors (CD-3)	1	White
Tenderer's Experience (CD-4)	1	White
Tenderer's Senior Staff (CD-5)	1	White
Tenderer's Plant (CD-6)	1	White
Supplementary Conditions	3	Blue
General Conditions of the Contract (CD-1)	7	Blue
Project Specifications		
Section 01010 - General	3	White
Section 02590 - Roads and Surface Works	5	White
Section 02815 - Finish Grading and Seeding	5	White

### LIST OF DRAWINGS

B-78201-P1 (Rev. 1)	Typical Sections and Culvert Details
B-78201-P2	Foss Road Culverts and Channel Improvements
B-78201-P3	Profile along Dams

Standard M.T.C. Specifications are not bound in with these Specifications and any reference to Standard Specifications is to the latest revision thereof.

## TENDERING INFORMATION

### TI.01 DELIVERY AND OPENING OF TENDERS

- A. Sealed tenders, marked with the name of the project, will be received by -

Mr. L.C. Hunt,  
Clerk-Treasurer,  
Town of Pelham,  
43 South Pelham Street,  
Fonthill, Ontario.  
LOS 1E0

up to noon, local time - Thursday, February 22nd, 1979

- B. The tenders will be opened publicly as soon after the closing time as possible.
- C. Tenders shall be made on the Form of Tender which shall not be detached from the other documents.

### TI.02 DISCREPANCIES

- A. If a Tenderer finds discrepancies in, or omissions from the Contract Documents, or if he is in doubt as to their meaning, he shall notify the Engineer, who may issue a written addendum. Neither the Owner nor the Engineer will make oral interpretations of the meaning of the Contract Documents.
- B. Should the Tenderer not agree that the materials and methods specified, or designed on the Drawings, will provide an installation to meet the requirements of the project, he shall notify the Engineer in writing, stating his reason for objection and may submit a suggested alternative. In such an event, the Engineer may choose to issue an addendum.
- C. Addenda issued during the tendering period shall be allowed for by the Tenderer.

### TI.03 EXAMINATION OF SITE

- A. The Tenderer shall visit the site of the Work before submitting his tender and shall by personal examination satisfy himself as to the local conditions that may be encountered during construction of the Work. He shall make his own estimate of the facilities and difficulties that may be encountered and the nature of the subsurface materials and conditions.
- B. He shall not claim at any time after submission of his tender that there was any misunderstanding of the terms and conditions of the Contract relating to site conditions.

### TI.04 SALES TAX

- A. The Tenderer shall include or exclude sales tax in accordance with current sales tax legislation taking into account any changes that have been made known by the Government and that will occur during the life of the Contract.
- B. PROVINCIAL SALES TAX
1. The prices shall include provincial sales tax on taxable items.
- C. FEDERAL SALES TAX
1. The prices shall include federal sales tax on taxable items. Refunds will be applied for by the Owner, and will remain the property of the Owner. The Contractor shall supply the Owner with copies of receipted invoices for all materials purchased in connection with the Work, indicating federal sales tax amounts paid.
- D. If sales taxes are increased or decreased, or other amendments are made in the legislation, during the course of the Contract, that alter tax amounts carried in the Contract price, an adjustment will be made accordingly.

- E. The Contractor shall keep records and invoices of accounts subject to Federal and Provincial Sales Tax for the purpose of establishing taxes paid and for substantiation in the event of changes to the tax legislation during the course of the Contract.

#### TI.05 PROOF OF ABILITY

- A. The Tenderer shall be competent and capable of performing the various items of Work. The Tenderer shall complete the following statement sheets, which shall form a part of the Contract Documents -
1. Tenderer's Experience in Similar Work (CD-4) with list of specific examples completed within the last 5 yrs., with appropriate references.
  2. Tenderer's Senior Staff to be employed (CD-5).
  3. Tenderer's Plant to be used (CD-6).
- B. The Tenderer may be required to furnish additional statements covering other matters, including financial resources.

#### TI.06 TENDER DEPOSIT

- A. Every tender shall be accompanied by a Bid Bond in an amount equal to \$5,000.00.

C.C.A. Document (S)20 shall be used for the Bid Bond.

The Tenderer shall keep his tender open for acceptance for 60 days after the closing date. Withdrawal during this period will result in forfeiture or enforcement of the Bid Bond.

Upon being notified that his tender has been accepted, the Contractor shall execute copies of the Agreement, supply bonds and insurance documents as specified, and start Work as specified.

Failure to execute the copies of the Agreement, or to supply bonds and insurance documents, all within 2 weeks of the date of acceptance of the tender, or to start Work as specified, will automatically mean the forfeiture or enforcement of the Bid Bond.

Bid Bonds of unsuccessful Tenderers will be returned not later than 2 weeks following Contract award.

The Bid Bond of the successful Tenderer will be returned with the first progress certificate.

#### TI.07 AGREEMENT TO BOND

- A. Every tender shall be accompanied by an 'Agreement to Bond' in the form attached, and shall be completed by a surety company lawfully doing business in the Province.

#### TI.08 ACCEPTANCE OF TENDERS

- A. The lowest or any tender need not necessarily be accepted by the Owner.

#### TI.09 EQUIVALENTS

- A. When an article is specified by its trade or other name (whether such name is followed by the phrase 'or approved equal' or not), the Tenderer shall base his tender price of the supply of the named article and no other.

After award of the Contract, the Contractor may submit requests to the Engineer for substitution of equivalent material. Such submissions shall be accompanied by complete information on the material proposed for use, together with revisions of cost that would result.

The Contractor shall submit requests for substitution within 3 weeks of the award of the Contract.

FORM OF TENDER

FT.01 TENDER PRICE

1. Offer by - Name - Wm. Duffin Contracting Ltd.

Address - R.R. #2, Welland, Ontario

Date - February 21st, 1979

2. To The Corporation of the Town of Pelham.

- A. We, the undersigned, having examined the site of the Work, having carefully investigated the conditions pertaining to the Work and having secured all the information necessary to enable us to submit a bona fide tender, and having inspected all the Contract Documents, hereby agree to enter into a contract with the Contract Documents to the satisfaction of the Engineer for the total tender price of -

dollars (\$ 154,836.50 )

FT.02 CONTINGENCIES AND ALLOWANCES

- A. We agree that the tender price includes the contingency sum of \$5,000.00 and that no part of this sum shall be expended without the written direction of the Engineer, and any part not so expended shall be deducted from the tender price.

FT.03 QUANTITIES

- A. The tender price is compiled from the Schedule of Tender Prices included hereinafter. The quantities in the schedule being approximate, we agree that the final valuation will be made on the basis of actual quantities measured during and on completion of the Work at the prices in the schedule.

FT.04 ADDITIONS AND DEDUCTIONS

- A. We agree that the valuation of additions to, and deductions from, the contract shall be made as follows -
1. The prices in the Schedule of Tender Prices shall apply where appropriate.
  2. If the prices in the Schedule of Tender Prices are not appropriate, the prices in the Table of Prices shall apply where appropriate.
  3. If the prices in subsections 1 and 2 are not appropriate, valuation will be made by one of the following methods -
    - (A) The Engineer may ask the Contractor for a quotation for the proposed Work.
    - (B) If the quotation referred to in (A) above is not accepted by the Engineer, the actual cost of the Work will be determined as the total of only the following -
      - (1) Actual cost of labour, including such items as Workmen's Compensation and Unemployment Insurance.
      - (2) Actual cost of materials to be incorporated into the Work, including such items as freight and taxes.
      - (3) For Work done by the Contractor, an amount equal to 15 percent of the totals from subsections (1) and (2) above, which shall constitute overhead and profit of the Contractor.
      - (4) For Work done by Sub-contractors, an amount equal to 20 percent of the



totals from subsections (1) and (2) above, which shall constitute overhead and profit of the Contractor and Sub-Contractors.

(5) Rental of equipment and plant having a new value greater than \$300. Rental rates shall be as set out in the current edition of MTC Form 527.

4. Whenever extra Work is being performed under subsection 3(B) above, we agree to submit daily reports in writing, indicating the total chargeable costs incurred for the day. Valuation of the extra Work being so performed will be made only on the basis of the approved daily reports.

FT.05 ADDENDA

- A. We agree that we have received addenda 1 to 1 inclusive, and the tender price includes the provisions set out in such addenda.

FT.06 COMPLETION

- A. We agree to commence Work as specified, to proceed continuously to the completion and to complete all Work within \* weeks from the date of issue of the written order to start Work.

\*To be completed by Tenderer.

FT.07 SCHEDULE OF TENDER PRICES

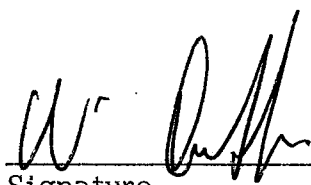
Item No.	Description	Unit	Quantity	Unit Price	T O T A L
<u>Section A - Detention Pond</u>					
A.01	Clearing & grubbing (approx. 6,800 sq.yd.)			Lump Sum	\$ 6,000.00
A.02	Stripping & stockpiling of topsoil (approx. 10,100 cu.yd. measured in situ)			Lump Sum	\$ 10,100.00
A.03	Excavation & placing of site material in dam & berm areas including compaction & dewatering (approx. 11,800 cu.yd. measured in situ)			Lump Sum	\$ 17,700.00
A.04	Provide 24-in. dia. CSP 12-gauge standard galvanized	Lin.Ft.	86	\$ 20.00	\$ 1,720.00
A.05	Provide 18-in. dia. CSP 12-gauge standard galvanized	Lin.Ft.	136	\$ 18.00	\$ 2,448.00
A.06	Provide 48" x 48" anti-seepage collars as manufactured by Armco or approved equal	Each	3	\$ 235.00	\$ 705.00
A.07	Provide 6-in. dia. perforated subdrain 16-gauge, galvanized	Lin.Ft.	630	\$ 4.00	\$ 2,520.00
A.08	Provide granular 'D' for filter	Ton	5,600	\$ 4.10	\$ 22,960.00
A.09	Provide Terrafix 307 RS filter mat or approved equal	Sq.Yd.	1,650	\$ 2.70	\$ 4,455.00
A.10	Provide granular 'A' as specified	Ton	1,900	\$ 4.90	\$ 9,310.00
A.11	Provide rip-rap as specified	Ton	2,200	\$ 7.20	\$ 15,840.00
A.12	Provide gabions as specified	Cu.Yd.	700	\$ 45.00	\$ 31,500.00
A.13	Spread topsoil & seed to disturbed areas	Sq.Yd.	21,800	\$ 0.65	\$ 14,170.00
Total Section A					\$ 139,428.00
<u>Section B - Foss Road Culverts and Channel Improvements</u>					
B.01	Clearing & grubbing (approx. 4,450 sq.yd.)			Lump Sum	\$ 2,000.00
B.02	Excavation of outlet channel from Sta. 0+00 to Sta. 18+82 including Foss Road culvert crossing (approx. 2,900 cu.yd. measured in situ)			Lump Sum	\$ 5,800.00
B.03	Provide 72" x 44" CM pipe arch as specified	Lin.Ft.	80	\$ 62.50	\$ 5,000.00
Sub-Total Forward					\$ 12,800.00

Item No.	Description	Unit	Quantity	Unit Price	T O T A L
Sub-Total Forward					\$ 12,800.00
B.04	Granular 'B' backfill for Foss Road culvert including compaction	Ton	260	\$ 4.60	\$ 1,196.00
B.05	Granular 'A' (crushed limestone) for Foss Road including compaction	Ton	75	\$ 5.50	\$ 412.50
Total Section B					\$ 14,408.50
<u>Section C - Contingency Allowance</u>				Lump Sum	\$ 5,000.00
<u>Section D - Credit for Surplus Topsoil</u> (approx. 7,700 cu.yd.) This amount to be deducted from the final contract value					
				Lump Sum	\$ 4,000.00
 <u>SUMMARY</u>					
Section A - Detention Pond				\$	139,428.00
Section B - Foss Road Culverts and Channel Improvements				\$	14,408.50
Section C - Contingency Allowance				\$	5,000.00
Section D - Credit for Surplus Topsoil				- \$	4,000.00
TOTAL CONTRACT VALUE				\$	<u>154,836.50</u>

\*Total of Section A, Section B, Section C minus Section D.

OFFERED ON BEHALF  
OF THE CONTRACTOR

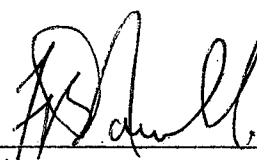
\_\_\_\_\_  
Signature



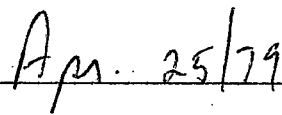
\_\_\_\_\_  
Signature

Contractor's Seal

\_\_\_\_\_  
Wm. Duffin Contracting Ltd.  
Company Name

  
\_\_\_\_\_  
Witness

\_\_\_\_\_  
R.R. #2  
Welland, Ontario  
Address

  
\_\_\_\_\_  
Date

AGREEMENT

This Agreement made in triplicate this ~~24th~~<sup>25</sup> day of April 1979  
between

Wm. Duffin Contracting Ltd.

hereinafter called 'The Contractor',  
and

The Corporation of the Town of Pelham hereinafter called 'The Owner'.

WITNESSETH, that the Contractor agrees with the Owner to perform all the work in accordance with the contract documents referred to in the tender of the Contractor dated the 21st day of February 1979 (which shall be deemed to form part of the Contract) to the satisfaction of the Engineer for the total contract price of \$ 154,836.50 which contract documents are attached hereto and which are hereby expressly made part of this Contract.

The Owner hereby agrees with the Contractor, that in consideration of the work being performed by the Contractor as specified, the Owner shall pay the Contractor for said work in accordance with the prices set out in the Form of Tender attached hereto, and in accordance with the provisions set out in the attached contract documents.

IN WITNESS WHEREOF the parties hereto have set their hands and seals the day and year first written above.

EXECUTION BY OWNER -

Name The Corporation of the Town of Pelham

Officers

E. G. Bergenstein  
[Signature]  
[Signature]

Date APRIL 25/79

Seal

EXECUTION BY CONTRACTOR -

Company Name Wm. Duffin Contracting Ltd.

Signatures

[Signature]  
[Signature]  
Witness [Signature]

Date Apr. 25/79

Seal

AGREEMENT TO BOND

Date \_\_\_\_\_ 1978

PROJECT EO 78201

\*

Gentlemen:

Construction of Draper's Creek Detention Pond  
in the Town of Pelham, Ontario

In consideration of the Owner accepting the tender of and  
executing an Agreement with

(hereinafter referred to as 'the Tenderer') for the construction  
of Draper's Creek Detention Pond in the Town of Pelham,  
Ontario subject to the express condition that the Owner  
receive the Performance Bond and the Payment Bond in  
accordance with the said tender, we the undersigned hereby  
agree with the Owner to become bound to the Owner as  
surety for the Tenderer in a performance bond and a payment  
bond each in an amount equal to 100% of the tender price,  
in the standard forms of the Canadian Construction Association  
and in accordance with the said tender, and we agree to  
furnish the Owner with the said bonds within 7 days after  
notification of the acceptance of the tender has been mailed  
to us.

Yours very truly

Note: This Agreement must be executed on behalf of the  
surety company by its authorized officers under the  
company's corporate seal.

\* Enter name and address of surety company at the top of  
the page.

BID BOND

No. \_\_\_\_\_ \$ \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS THAT \_\_\_\_\_

\_\_\_\_\_ as Principal

hereinafter called the Principal, and \_\_\_\_\_

a corporation created and existing under the laws of \_\_\_\_\_

and duly authorized to transact the business of Suretyship in \_\_\_\_\_

as Surety, hereinafter called the Surety, are held and firmly bound unto \_\_\_\_\_

\_\_\_\_\_ as Obligee

hereinafter called the Obligee, in the amount of \_\_\_\_\_

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_ )

lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a written tender to the Obligee, dated the \_\_\_\_\_

day of \_\_\_\_\_ 19 \_\_\_\_\_, for \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the aforesaid Principal shall have the tender accepted within sixty (60) days from the closing date of tender and the said Principal will, within the time required, enter into a formal contract and give the specified security to secure the performance of the terms and conditions of the Contract, then his obligation shall be null and void; otherwise the Principal and the Surety will pay unto the Obligee the difference in money between the amount of the bid of the said Principal and the amount for which the Obligee legally contracts with another party to perform the work if the latter amount be in excess of the former.

The Principal and the Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of six months from the date of this Bond.

IN WITNESS WHEREOF, the Principal and the Surety have Signed and Sealed this Bond this \_\_\_\_\_

\_\_\_\_\_ day of \_\_\_\_\_ 19 \_\_\_\_\_

SIGNED and SEALED  
In the presence of

(  
(  
(  
( \_\_\_\_\_ (Seal)  
( Principal  
(  
(  
( \_\_\_\_\_ (Seal)  
( Surety

Endorsed by: R.A.I.C., A.C.E.C., C.C.A., E.I.C., S.W.A.C.

Approved by: INSURANCE BUREAU OF CANADA

\$.....

(  
(  
( ..... (Seal)  
Principal  
(  
( ..... (Seal)  
Surety



LABOUR AND MATERIAL PAYMENT BOND  
(TRUSTEE FORM)

No. \_\_\_\_\_ \$ \_\_\_\_\_

Note: This Bond is issued simultaneously with another Bond in favour of the Oblige conditioned for the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS THAT \_\_\_\_\_

\_\_\_\_\_ as Principal,

hereinafter called the Principal, and \_\_\_\_\_

a corporation created and existing under the laws of \_\_\_\_\_

and duly authorized to transact the business of Suretyship in \_\_\_\_\_

as Surety, hereinafter called the Surety are, subject to the conditions hereinafter contained, held and firmly bound unto

\_\_\_\_\_ as Trustee,

hereinafter called the Oblige, for the use and benefit of the Claimants, their and each of their heirs, executors,

administrators, successors and assigns, in the amount of \_\_\_\_\_

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_ )

of lawful money of Canada for the payment of which sum well and truly to be made the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a written contract with the Oblige, dated the \_\_\_\_\_

day of \_\_\_\_\_ 19 \_\_\_\_\_, for \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

which contract, Specifications & Drawings are by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall make payment to all Claimants for all labour and material used or reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A Claimant for the purpose of this Bond is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment directly applicable to the Contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the performance of the Contract under a contract which provides that all or any part of the rent is to be applied towards the purchase price thereof, shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the Contract. The prevailing industrial value of equipment shall be determined, insofar as it is practical to do so, in accordance with and in the manner provided for in the latest revised edition of the publication of the Canadian Construction Association titled "Rental Rates on Contractors Equipment" published prior to the period during which the equipment was used in the performance of the Contract.

LIST OF SUB-CONTRACTORS

SUB-TRADE	NAME OF SUB-CONTRACTOR	ADDRESS OF SUB-CONTRACTOR

Proctor & Redfern Limited  
Consulting Engineers  
June 11th, 1975  
AS:hs

YEAR COMPLETED	DESCRIPTION OF CONTRACT	FOR WHOM WORK PERFORMED	VALUE
1978	Waste Sludge Holding Pond	Allied Chemical	

Proctor & Redfern Limited  
Consulting Engineers  
June 11th, 1975  
AS:hs

TENDERER'S SENIOR STAFF

Proctor & Redfern Limited  
Consulting Engineers  
June 11th, 1975  
AS:hs

Proctor &amp; Redfern Limited

## Consulting Engineers

June 11th, 1975

AS:hs

TENDERER'S PLANT

The Tenderer shall list the plant, machinery and equipment he proposes to use on the work.

PLANT UNDER TENDERER'S CONTROL:

Cat D8 dozer  
Cat D6 dozer  
Cat 977 track loader  
Cat 225 excavator  
Mack trucks

PLANT TO BE RENTED:

Pull scraper

PLANT TO BE PURCHASED:

Proctor & Redfern Limited  
Consulting Engineers  
June 11th, 1975  
AS:hs

CERTIFICATE OF INSURANCE

- This is to certify that in connection with a contract between

\_\_\_\_\_  
(Owner) and

\_\_\_\_\_  
(Contractor)

for (name of project) \_\_\_\_\_

Proctor & Redfern Limited Project No. E.O. \_\_\_\_\_ that:

Name of Assured (Contractor): \_\_\_\_\_

Address of Assured: \_\_\_\_\_

is insured by \_\_\_\_\_

which insurance is listed below:

CoveragePolicy Number

Contractual Liability \_\_\_\_\_

Cross Liability \_\_\_\_\_

Contingent Employer's Liability \_\_\_\_\_

Completed Operations Liability \_\_\_\_\_

Non-Owned Automobile Liability \_\_\_\_\_

Automobile Insurance \_\_\_\_\_

\* Damage Insurance \_\_\_\_\_

- We certify that all Liability Insurance listed above complies with Clause 24 of the General Conditions of the Contract, a copy of which is attached hereto and is in the joint names of:

\_\_\_\_\_  
(Owner) and;

\_\_\_\_\_  
(Contractor) and;

All subcontractors \_\_\_\_\_

and;

Proctor & Redfern Limited (Engineer)

- We certify that all Automobile Insurance listed above complies with Clause 25 of the General Conditions of the Contract, a copy of which is attached hereto.
- \*- We certify all Damage Insurance listed above complies with Clause 28 of the General Conditions of the Contract, a copy of which is attached hereto and is in the joint names as listed above for Liability Insurance.
- We certify that all insurance policies listed above shall stay in force and not be amended, cancelled or allowed to lapse without thirty (30) days prior notice to all parties named in the policies listed above.

Date \_\_\_\_\_, 19\_\_\_\_

Name of Insurance Company \_\_\_\_\_

\_\_\_\_\_  
Address

\_\_\_\_\_  
Authorized Signature

- \* If the Supplementary General Conditions cancels Damage Insurance, then delete these references.

SUPPLEMENTARY CONDITIONS

SC.01 GUARANTEE PERIOD

- A. The guarantee period for the Contract shall be twelve months, unless an extended guarantee period is called for in any specific Section.

SC.02 DEFINITION

- A. 'Department of Highways' and 'DHO' means 'The Ministry of Transportation and Communications' and 'MTC'.
- B. 'The Department of Transportation and Communications' and 'DTC' means 'The Ministry of Transportation and Communications' and 'MTC'.
- C. The word 'provide' shall mean - supply labour, materials, equipment, handling and cartage required for complete installation of the item concerned.
- D. The words 'Work', 'work' or 'works' have the same meaning as for 'WORK' as defined in the General Conditions.

SC.03 INSURANCE

A. Claims

1. Claims or alleged claims received by the Contractor shall be dealt with immediately by the Contractor. If a claim is settled to the satisfaction of the claimant, the Contractor shall submit to the Engineer a copy of the claimant's release.
2. If a claim or alleged claim is rejected by the Contractor and/or his insurance company, the Contractor shall report this fact in writing to the Engineer.
3. Should 30 days elapse after the claim or alleged claim has been received by the Contractor, and the Contractor is not able to report settlement or rejection of the claim, he shall report to the Engineer the steps being taken with respect to the claim.

B. Limits

1. Liability insurance

- (A) Amend clause (C) of article 24 Liability Insurance of the General Conditions to read as follows -

(C) Have a limit of not less than \$1,000,000.00 inclusive per occurrence.

2. Automobile insurance

- (A) Amend the second sentence of article 25 Automobile Insurance of the General Conditions to read as follows -

Such insurance shall have limits of not less than \$1,000,000.00 inclusive.

C. Certificate

1. As required by Article 29 - Insurance Policies and Certificates of the General Conditions, evidence of insurance shall be shown on the Certificate of Insurance (form CD-23) bound herein.

D. Damage insurance

1. Notwithstanding the provisions of clause 28 of the General Conditions, no 'Damage Insurance' will be required on this Contract.

#### SC.04 HOLDBACK FOR RECTIFICATION AFTER ACCEPTANCE OF THE WORK

- A. To cover rectification costs during the guarantee period, the Owner will retain 5 percent of the value of the Work done, such amount being held back in each progress certificate. This holdback will be retained for a period of 1 year from the 'Acceptance Date' which is described in article 33 of the General Conditions. Additional monies will be held back as required by provincial statutes.

#### SC.05 PAYMENT BOND

- A. The Contractor, together with a surety company approved by the Owner and authorized by law to carry on business in the Province shall furnish a 100 percent labour and materials payment bond to the Owner using C.C.A. Document (S)22. The bond shall remain in effect until the issue by the Engineer of the final payment certificate.

#### SC.06 PERFORMANCE BOND

- A. The provisions of the General Conditions shall apply except that C.C.A. Document (S)21 shall be used.

#### SC.07 SHOP DRAWINGS

- A. As well as the requirements of the General Conditions, the following shall apply.
1. Prior to submission to the Engineer the Contractor shall review Shop Drawings. By this review the Contractor represents that he has determined and verified field measurements, field construction criteria, materials, catalogue numbers and similar data or will do so and that he has checked and co-ordinated each Shop Drawing with the requirements of the Work and of the Contract Documents. The Contractor's review of each Shop Drawings shall be indicated by stamp, date and signature of a responsible person.
  2. The Engineer's review will be for general arrangement only as well as for conformance with the design concept as required by the General Conditions.
  3. Shop Drawings shall be properly identified by the name of the project, the E.O. number, the item and the area in which the item is to be used. Where options occur on the Shop Drawing, the option proposed to be used shall be marked. If applicable, the related specification Section shall be indicated.
  4. Reference 21 (d) of the General Conditions, substitute the word 'review' for the word 'approval'.

#### SC.08 RELEASE OF HOLDBACK

- A. Holdbacks held under the provisions of the Mechanics' Lien Act will be released upon application by the Contractor, and will be subject to the requirements of the Act.



SC.09 FINAL PAYMENT CERTIFICATE

A. Notwithstanding the provisions of clause 36 of the General Conditions, the following shall apply -

1. Provided the provisions of the Contract have been fully met, the Engineer will issue a final certificate 1 year after the acceptance date, unless otherwise specified.

SC.10 SUPERINTENDENCE

A. The Contractor shall employ a competent supervisor and necessary assistants who shall at all times, be in attendance at the place of the Work while work is being performed.

The supervisor shall be satisfactory to the Engineer and shall not be changed except for good reason and only then after consultation with the Engineer.

The supervisor shall represent the Contractor at the place of the Work and directives given to him by the Engineer shall be held to have been given to the Contractor.

The Contractor shall provide the Engineer with the name, address and phone number of the supervisor and other responsible person(s) who may be contacted for emergency or other reasons.

SC.11 CONFLICTS AND OMISSIONS

A. The Contractor shall do all work and furnish all materials in accordance with the best practice, and in the event of any inconsistency or conflict in the provisions of the plans or specifications, such provisions shall take precedence and govern in the following order -

1. Plans
2. Tendering Information
3. Supplementary Conditions
4. Project Specifications
5. Form of Tender
6. General Conditions

B. Neither party to the Contract shall take advantage of any apparent error or omission in the plans or specifications, but the Engineer shall be permitted to make such corrections and interpretations as may be necessary for fulfillment of the intent of the plans and specifications. Any work or material not herein specified but which may be fairly implied as included in this Contract, of which the Engineer shall be the judge, shall be done or furnished by the Contractor as if such work or material had been specified.

## GENERAL CONDITIONS OF THE CONTRACT

### SUBJECT INDEX

	CLAUSE		CLAUSE
ASSIGNMENT . . . . .	41	MATERIALS, REJECTION OF . . . . .	19
AUTOMOBILE INSURANCE . . . . .	25	MATERIALS, SUPPLY OF . . . . .	16
BOND, PERFORMANCE . . . . .	40	MATERIALS AND WORKMANSHIP . . . . .	13
CERTIFICATES, TOTAL COMPLETION . . . . .	35	NOTICES . . . . .	4
CERTIFICATES, FINAL . . . . .	37	OPERATIONAL RISKS . . . . .	12
CERTIFICATES, INSURANCE POLICIES AND, . . . . .	29	OWNERSHIP OF DOCUMENTS . . . . .	22
CERTIFICATES, PROGRESS . . . . .	33	OWNERSHIP OF PLANT AND MATERIALS . . . . .	15
CHANGES IN THE WORK . . . . .	18	PAYMENTS . . . . .	36
CLAIMS, INSURANCE . . . . .	30	PERFORMANCE BOND . . . . .	40
COLD WEATHER . . . . .	14	PLANT AND MATERIALS, OWNERSHIP OF . . . . .	15
COMMENCEMENT & COMPLETION . . . . .	5	POLICIES AND CERTIFICATES, INSURANCE. . . . .	29
COMPENSATION, WORKMEN'S . . . . .	26	PREMISES, USE OF . . . . .	6
COMPLETION, SUBSTANTIAL . . . . .	34	PROGRESS CERTIFICATES . . . . .	33
COMPLETION & COMMENCEMENT . . . . .	5	PROSECUTION OF THE WORK . . . . .	11
CONTRACTORS, SUB. . . . .	3	PUBLIC SAFETY . . . . .	10
CONTRACTOR, TERMINATE EMPLOYMENT OF . . . . .	39	REJECTION OF WORK AND MATERIALS . . . . .	19
DAMAGE INSURANCE . . . . .	28	RELEASE OF HOLDBACK . . . . .	34
DAMAGE, LOSS OR . . . . .	27	RESTORATION . . . . .	7
DEFINITIONS . . . . .	1	RISKS, OPERATIONAL . . . . .	12
DETAILS AND INSTRUCTIONS . . . . .	17	SAFETY, PUBLIC . . . . .	10
DOCUMENTS . . . . .	2	SHOP DRAWINGS . . . . .	21
DOCUMENTS, OWNERSHIP OF . . . . .	22	STATUTES . . . . .	9
DRAWINGS, SHOP . . . . .	21	SUBCONTRACTORS . . . . .	3
ENGINEER . . . . .	20	SUBSTANTIAL COMPLETION . . . . .	34
FINAL CERTIFICATE . . . . .	37	SUPERINTENDENCE . . . . .	42
GUARANTEE . . . . .	38	SUPPLY OF MATERIAL . . . . .	16
HOLDBACK RELEASE . . . . .	34	TERMINATE EMPLOYMENT OF CONTRACTOR. . . . .	39
HOURS OF WORK . . . . .	31	TOTAL COMPLETION CERTIFICATE . . . . .	35
INSTRUCTIONS, DETAILS AND . . . . .	17	USE OF PREMISES . . . . .	6
INSURANCE CLAIMS . . . . .	30	UTILITIES . . . . .	8
INSURANCE, AUTOMOBILE . . . . .	25	VALUATION . . . . .	32
INSURANCE, DAMAGE . . . . .	28	WEATHER, COLD . . . . .	14
INSURANCE, LIABILITY . . . . .	24	WORK, CHANGES IN . . . . .	18
INSURANCE, POLICIES & CERTIFICATES . . . . .	29	WORK, HOURS OF . . . . .	31
LIABILITY . . . . .	23	WORK AND MATERIALS, REJECTION OF . . . . .	19
LIABILITY INSURANCE . . . . .	24	WORK, PROSECUTION OF . . . . .	11
LOSS OR DAMAGE . . . . .	27	WORKMANSHIP AND MATERIALS . . . . .	13
MATERIALS, OWNERSHIP OF . . . . .	15	WORKMEN'S COMPENSATION . . . . .	26

PROCTOR & REDFERN LIMITED  
CONSULTING ENGINEERS  
75 EGLINTON AVENUE EAST, TORONTO, ONT. M4P 1H3

**GENERAL CONDITIONS OF THE CONTRACT****1. Wherever used in the Contract Documents, or other documents forming part of the Contract:**

- (a) the word "Contract" means: the Contract to do the Work, the Bonds or Securities, the Addenda (if any), the Specifications, the General and Supplementary General Conditions, the Tendering Information, the List of Contract Documents, the Drawings, and other documents referred to or connected with the Agreement.
- (b) the word "Owner" means the person or corporation accepting the Tender.
- (c) the word "Contractor" means the person or corporation to whom the Contract for the Work has been awarded.
- (d) the word "Subcontractor" means the person or corporation having a contract with the Contractor (or with another subcontractor) for the execution of a part or parts of the Work included in the Contract, or for the supplying of material for the Contract and worked to a special design according to the Drawings and Specifications.
- (e) the word "Engineer" means Proctor & Redfern Limited, Consulting Engineers, and their duly authorized agents.
- (f) the word "Work" means labour, materials and other things required to be done, that are shown, described or implied in the Contract Documents, and includes extra and additional Work that may be ordered by the Engineer.

**1. DEFINITIONS****2. (a) The Contract Documents shall be signed and sealed, in triplicate, by the Owner and the Contractor.**

- (b) The Contract Documents are complementary and what is called for by any one shall be as binding as if called for by all. The intention of the Documents is to include plant, labour and materials (except as specifically excepted) necessary for the complete and proper execution of the Work.
- (c) Drawings and Specifications shall be read and interpreted together. Work not specifically described, but obviously necessary for the satisfactory completion of the Work for the purpose intended shall be supplied and performed by the Contractor as though it had been described and shown in the Drawings and Specifications.
- (d) Reference to published standard specifications shall be to the edition current at the time of the signing of the Contract Documents.

**2. DOCUMENTS****3. (a) Without the written approval of the Engineer, the Contractor shall not change the Subcontractors named in the Contract.**

- (b) The Contractor shall be held as fully responsible to the Owner for the acts and omissions of his Subcontractors (and of persons directly and indirectly employed by them) as for the acts and omissions of persons directly employed by the Contractor.
- (c) The Contractor shall bind every Subcontractor to the terms of the Contract Documents, as far as applicable to the Subcontractor's Work.
- (d) Nothing in the Contract Documents shall create any contractual relation between Subcontractors and the Owner.
- (e) Division of the Specifications into sections or subsections shall be only for clarity of reading and reference, and shall not be taken to be a division into trades, subtrades or sections of Work of any kind.

**3. SUB-CONTRACTORS****4. (a) Any notice or communication to the Contractor shall be deemed to be legally well and sufficiently given and served, if:**

- (i) handed to the Contractor or his authorized representatives, or
- (ii) posted or sent to the address given in the Tender, or,
- (iii) posted or sent to the Contractor's domicile or usual place of business, or
- (iv) posted or sent to the place where the Work is, or is to be, carried on, or
- (v) posted to or left at his last known address.

**4. NOTICES**

- (b) If the Work is closed, suspended or stopped for the winter (or for other approved reasons), the Contractor shall remove material from streets, sidewalks, boulevards and other public property.
- (c) The Contractor shall ensure that the charges of explosives used, and the time at which they are exploded, shall be such as not to cause suffering, inconvenience or injury to persons nor damage to property.
- (d) Explosives shall be properly housed and protected, and no explosives that have deteriorated shall be used. Approved methods of handling and thawing frozen explosives shall be followed. In blasting operations, the Contractor shall exercise the greatest care at all times.
- (e) The Contractor shall provide, erect and maintain necessary barriers, fences and other proper protection, and shall provide and maintain watchmen and lights as may be necessary to ensure the safety of the public and others. Unless otherwise specified, the Contractor shall keep streets and sidewalks open for use by the public. The Contractor shall provide, erect and maintain a sufficient number of detour signs, and other proper notices, wherever the use of streets or sidewalks is dangerous due to the Contractor's operations.
- (f) When Work is carried on at night, the Contractor shall provide, erect and operate a sufficient number of lights to enable the Work to be performed satisfactorily.

- 11. (a) The Contractor shall complete the Work in accordance with a schedule set down in co-operation with the Engineer at the time of the award of the Contract. Amendments to this schedule may be made by the Engineer, on application by the Contractor.
- (b) Should the Engineer be of the opinion that the quantity or quality of labour or plant supplied by the Contractor is not sufficient, or that the methods being employed are not such as will ensure that the Work will be completed within the specified time, the Contractor shall forthwith improve the quality and increase the number of men employed, shall make revisions to the plant, and shall employ Work methods satisfactory to the Engineer.

#### 11. PROSECUTION OF THE WORK

- 12. (a) Damage, loss, expense and delay incurred or experienced by the Contractor in the prosecution of the Work, by reason of unanticipated difficulties, bad weather, strikes, wars, acts of God, or other mischances, shall be borne by the Contractor and shall not be the subject of a claim for additional compensation.
- (b) The position of pole lines, conduits, watermains, sewers and other underground and over-ground utilities and structures is not necessarily shown on the Contract Drawings, and, where shown, the accuracy of the position of such utilities and structures is not guaranteed. Before starting Work, the Contractor shall inform himself of the exact location of such utilities and structures, and shall assume liability for damage to them. Unless otherwise specified, the Contractor shall support such utilities and structures, or temporarily remove them, and restore them, to the satisfaction of the owners of the utilities and structures.

#### 12. OPERATIONAL RISKS

- 13. (a) Workmanship shall be first-class and material new and of best quality. The Contractor shall pay due regard to the neat and attractive appearance of the finished Work.
- (b) If ordered by the Engineer, the Contractor shall make such openings in the Work as are needed to re-examine the Work, and shall forthwith make the Work good again. Should the Engineer find the Work so opened up to be faulty, the whole of the expense of opening, checking and making good shall be borne by the Contractor. Should the Engineer find the Work opened up to be in an acceptable condition, such expense will be borne by the Owner.
- (c) The Contractor shall remove and make good defective Work, and the entire cost of such removal and making good shall be borne by the Contractor.

#### 13. WORKMANSHIP AND MATERIALS

- 14. When Work is permitted or ordered by the Engineer to be done in cold weather, the Contractor shall provide suitable means for heating and protection, and the materials shall be heated and protected. All Work that may be injured by frost, and which cannot be satisfactorily completed, shall be put in a proper and satisfactory condition, and shall be protected from damage by frost. Unless otherwise specified, the cost of such protection shall be borne by the Contractor.

#### 14. COLD WEATHER

30. (a) Claims or alleged claims received by the Contractor shall be dealt with immediately by the Contractor. If a claim is settled to the satisfaction of the claimant, the Contractor shall submit to the Engineer a copy of the claimant's release.
- (b) If a claim or alleged claim is rejected by the Contractor and/or his insurance company, the Contractor shall report this fact in writing to the Engineer.
- (c) Should 30 days elapse after the claim or alleged claim has been received by the Contractor, and the Contractor is not able to report settlement or rejection of the claim, he shall report to the Engineer the steps being taken with respect to the claim.

**30.  
INSURANCE  
CLAIMS**

31. The Engineer may prohibit the Contractor from carrying on operations during hours of the day in which the Engineer, in his judgment, deems such operations to be a disturbance or nuisance to the public.

**31.  
HOURS  
OF WORK**

Such prohibition may be made notwithstanding prior consent, order, agreement or requirement in the Contract that stipulates maximum or minimum hours of Work.

32. (a) At monthly intervals, the Contractor and the Engineer shall make a valuation of the Work and materials supplied under the Contract. Should the Engineer wish to measure the Work or materials supplied, the Contractor shall assist in such measurements and furnish particulars required.
- (b) The monthly valuations described in subsection (a) above shall not bind the Owner, the Contractor or the Engineer to final valuation of the Work to be done under the Contract, but shall be construed as approximations only for the purpose of Progress Certificates.
- (c) The final valuation of the Work shall be prepared as soon as possible after the whole of the Work has been completed.

**32.  
VALUATION**

33. The Contractor shall be entitled to receive partial payments upon the certificate of the Engineer of the value of Work done and materials supplied.

**33.  
PROGRESS  
CERTIFICATES**

Unless otherwise specified, eighty-five per cent (85%) of the estimated value of the completed Work and material supplied will be certified, less amounts retained under Clause 36.

For Progress Certificates, the Engineer's decision as to the estimated value of completed Work and material supplied shall be final, but shall not be binding on him, the Contractor or the Owner in the establishing of the final value of the Work, nor shall it be taken as evidence as to ownership of, or payment for the Work.

34. Holdbacks held under the provision of the Mechanics' Lien Act will be released upon application by the Contractor, and will be subject to the requirements of the Act. The Contractor's applications shall be made in the forms included as Appendices 1 and 2 to these General Conditions. When the Engineer is satisfied that the Work meets the requirements of Substantial Completion in the Mechanics' Lien Act he will issue a Substantial Completion Certificate to establish a date for commencement of the holdback period.

**34.  
SUBSTANTIAL  
COMPLETION  
AND HOLDBACK  
RELEASE**

35. (a) When the Work required to be done under the Contract has been completed in every respect and is acceptable to the Engineer, a final valuation of the Contract will be prepared by the Contractor and the Engineer.
- (b) The Contractor shall submit to the Engineer a statement indicating the Contractor's valuation of the Work according to records available to the Contractor. The Engineer will review this statement and either approve it or submit detail reasons for revisions that, in his opinion, should be made.
- (c) Should the Engineer consider it advisable, the Engineer will prepare a final valuation of the Work and submit it to the Contractor who shall either approve it or submit detail reasons for revisions that, in his opinion, should be made.
- (d) When the Engineer and Contractor have reached agreement as to the final value of the Work, the Engineer will issue a Total Completion Certificate, detailing the valuation of the Contract, and certifying its acceptance at a certain specific date, referred to as the "acceptance date."
- (e) Should the Engineer and Contractor be unable to reach agreement as to the final value of the Work within a reasonable period, the Engineer will issue his Total Completion Certificate detailing his valuation of the Contract and certifying acceptance of the Work at a certain specific date, referred to as the "acceptance date."

**35.  
TOTAL  
COMPLETION  
CERTIFICATE**

41. The Contractor shall not assign the Contract, or any part of it without the written consent of the Owner, nor shall the Contractor assign monies due, or to become due, to him without the written consent of the Owner.

41.  
ASSIGNMENT

42. The Contractor shall employ a competent supervisor and necessary assistants who shall at all times, be in attendance at the place of the Work while Work is being performed.

42.  
SUPERINTENDENCE

The supervisor shall be satisfactory to the Engineer and shall not be changed except for good reason and only then after consultation with the Engineer.

The supervisor shall represent the Contractor at the place of the Work and directives given to him by the Engineer shall be held to have been given to the Contractor.

The Contractor shall provide the Engineer with the name, address and phone number of the supervisor and other responsible person(s) who may be contacted for emergency or other reasons.

**APPENDIX 1 OF THE GENERAL CONDITIONS OF THE CONTRACT**

**APPLICATION FOR RELEASE OF SUBCONTRACTOR'S HOLDBACK**

Owner:

Project:

EO:

Contractor:

Subcontract:

Subcontractor:

1. We, \_\_\_\_\_ the said Subcontractor  
hereby confirm that the Work under the said subcontract was completed on  
\_\_\_\_\_, that the subcontract price was \$ \_\_\_\_\_, and hereby  
request the issue of a certificate that such subcontract Work has been completed.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

SEAL:

2. We, \_\_\_\_\_ the said Contractor  
hereby confirm that Work of the above subcontract has been complete in accord-  
dance with the Contract Documents and that the subcontract price was \$ \_\_\_\_\_  
and hereby apply for a reduction in holdback with respect to the  
subcontract, in accordance with the provisions of the Mechanics' Lien Act.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

SEAL:

**PROCTOR & REDFERN LIMITED**  
Consulting Engineers

May, 1978

**APPENDIX 2 OF THE GENERAL CONDITIONS OF THE CONTRACT**

**APPLICATION FOR RELEASE OF CONTRACTOR'S HOLDBACK**

Owner:

Project:

EO:

Contractor:

We,  
hereby confirm:

the said Contractor,

- (i) that the Work under the above Contract is "substantially complete" as defined in the Mechanics' Lien Act, and
- (ii) that there are no outstanding liens, garnishees, attachments or other charges affecting the Work, and
- (iii) that the value of Work done to the date of substantial completion is \$  
and
- (iv) that the value of Work remaining to be done is \$

and hereby apply for release of holdback monies in accordance with the provisions of the Mechanics' Lien Act.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

SEAL:

**PROCTOR & REDFERN LIMITED**  
Consulting Engineers

May, 1978



## SECTION 01010 - GENERAL

### PART 1 GENERAL

#### PART 1.01 DESCRIPTION OF WORK

- A. This Contract is for construction of the following work in the Town of Pelham, Ontario.
  - 1. A storm water detention pond located between Quaker and Foss Roads and Haist and South Pelham Streets.
  - 2. Approximately 1,800 feet of channel improvements including a culvert installation at Foss Road.

#### PART 1.02 DEFINITION

- A. The word "Work" means supply labour materials, equipment handling and cartage required for complete installation of the item concerned.

#### PART 1.03 LIMITS OF SITE

- A. The limits of the site are -
  - 1. The road or street allowances on which Work is to be performed.
  - 2. Such additional land as shown on the Contract Drawings.
  - 3. Such additional land designated as easements shown on the Contract Drawings.
  - 4. Such areas of private property adjacent to road or street allowances on which the Contractor is directed, in writing, to enter to carry out Work.

#### PART 1.04 SETTING OUT OF THE WORK

- A. The Engineer will set such stakes as are necessary to mark the location, alignment, elevation and grade of the Work. Give adequate notice of the need for such setting out.

Carefully protect and preserve stakes, lot pins, marks and reference points and replace if destroyed or removed.

Provide grade stakes, masts, scaffolds, batter boards, straight edges, templates and other equipment necessary for laying out, and inspecting the Work.

Wherever necessary suspend Work temporarily to permit the Engineer to inspect and check the line and grade of any portion of the Work.

#### PART 1.05 CONSTRUCTION SCHEDULE

- A. Within 2 weeks after being awarded the Contract, submit proposed construction schedule to the Engineer for approval. In the schedule show proposed progress in weekly stages for the main sections and subsections of the Work.

### PART 2 PRODUCTS

#### PART 2.01 TESTS

- A. Where required by the Engineer, supply certified copies of tests upon materials to be used in the construction of the Work, indicating that the materials comply with the Specifications. Have an approved testing laboratory make such tests at no expense to the Owner.

## PART 3 EXECUTION

### PART 3.01 WORK ON ROADS

- A. Do not perform Work on public rights-of-way without the approval of the road authority.

### PART 3.02 TRAFFIC

- A. Perform traffic control on streets in accordance with the rules of the appropriate road authority. Ensure that flagmen wear fluorescent red or orange safety vests, arm bands and hats.
- B. Streets may be closed to through traffic only with the written permission of the Road Authority. Adequately mark detours on adjacent streets. Erect and maintain barricades on the closed streets and light at night. Inform the Road Authority when a road is re-opened to traffic.
- C. On streets that are not officially closed, always maintain one lane of traffic in each direction. Should temporary detours be constructed, comply with the requirements of the road authority as to location, dimensions, strength, road markings, signing and other relevant details. Remove detours when no longer needed, and restore surfaces to the original condition.
- D. Whether streets are officially closed or not, maintain reasonable access to adjacent properties for pedestrians and vehicles.
- E. Maintain traffic signs in their original positions. Be sure that the signs are not obscured.

### PART 3.03 NOTIFICATIONS

- A. When streets are to be closed, or traffic restricted, notify the appropriate fire and police departments, giving at least 7 days notice of the closing or restriction.
- B. If bus routes are affected, notify the bus company, giving at least 7 days notice.
- C. When streets are to be re-opened, or restrictions removed, notify the fire, police and bus authorities.

### PART 3.04 REQUIREMENTS OF MUNICIPALITIES

- A. Be sure that the Work complies with the specifications of the municipalities.
- B. The Engineer's acceptance of the Work may be withheld until the municipalities have issued their approvals.

### PART 3.05 MUNICIPAL INSPECTORS

- A. Municipal inspectors may be present during the construction of the Work. They have the power to order the Contractor to stop Work if the Work, in their opinion, is not being done in accordance with the set lines and grades or to the Drawings and Specifications.

Unless otherwise specified, the cost of municipal inspectors will not be charged to the Contractor.

### PART 3.06 INCLEMENT WEATHER

- A. Make adequate protection and take precautions at times of inclement weather.
- B. Inclement weather or extra Work caused by such weather will not be accepted as reason for additional payment.

### PART 3.07 MUD AND DUST

- A. Keep streets and other construction areas clean. If it is necessary to haul wet material, use suitable watertight trucks.
- B. Control dust by the use of water or calcium chloride, or both.

PART 3.09 OTHER CONSTRUCTION

- A. Other construction may be proceeding at the same time near the Work of this Contract. Extend co-operation and free access to other companies and employees who may be working in the area.

PART 3.10 ADJACENT STRUCTURES AND UTILITIES

- A. Perform temporary and permanent support and temporary relocation and replacement of underground or overhead utilities as detailed in the General Conditions.
- B. Permanent relocation of underground or overhead utilities will be carried out by others, if necessitated by coincidence of lines or grades, or both.

PART 3.11 TEMPORARY ACCESS

- A. Where necessary for access, provide and maintain suitable safe, temporary roads, walkways and bridges. Remove temporary access facilities and restore disturbed areas, after the Work of the Contract has been completed.

PART 3.12 CLEAN-UP

- A. On a daily basis as the Work progresses and on completion of the Work, clean-up and remove the rubbish and debris from the site. Remove excess material that is not required to be left on the site by the conditions of the Contract.

SECTION 02590 - ROADS AND SURFACE WORKS

PART 1 GENERAL

PART 1.01 INTENT

A. This Section covers the Work for roads and surface works including -

1. Site clearing
2. Grubbing
3. Stripping and stockpiling of topsoil
4. Excavation and grading
5. Compaction
6. Granular courses
7. Existing utilities
8. Existing drainage
9. Removal of existing pipes
10. Culverts
11. Placing topsoil
12. Fertilizer
13. Application of water
14. Seed
15. Restoration

PART 1.02 TESTING

A. Supply test certificates in accordance with the appropriate specification, for the following materials -

1. Granular 'A'

PART 1.03 EXISTING UTILITIES

- A. Contact the various utility companies prior to commencing Work and become informed of the exact location of all utilities, protect them during construction and assume all liability for damage to utilities.
- B. Utilities that require relocation will be the responsibility of the Utility Company concerned, including costs. Co-operate with the utility companies and always provide them with free access to their plant.

PART 1.04 EXISTING DRAINAGE

- A. Maintain temporary and permanent flags in sewers, drains, gutters, ditches, water-courses, house and inlet connections.

PART 1.05 MEASUREMENT FOR PAYMENT

- A. The Engineer will measure items in the units as detailed in the Form of Tender. Measurements will be taken in the horizontal plane except for seed and rip-rap.

## PART 1.06 BASIS OF PAYMENT

### A. Conditions

1. The Engineer will measure the Work when completed and the Contract price will be increased or decreased in accordance with the final measurements.
2. No additional payment will be allowed for difficulties resulting from relocating of utilities by others.

### B. Items

1. Include in the unit prices for items the associated work as follows -

#### (A) Excavation

- excavate to the lines and grades as set out. Payment will not be made for over excavation.

- Excavate, load, haul, place and compact on the site as directed.

#### (B) Strip Topsoil

#### (C) Provide Culverts

- Supply, load, haul, excavate, place and backfill, including rip-rap and restoration as required.

#### (D) Provide Water

- Apply as directed

#### (E) Place Topsoil

- Load, haul, spread and fine grade

#### (F) Provide Seed

- Supply, place, fertilize, water, hydro-mulch and maintain

## PART 2 PRODUCTS

### PART 2.01 GENERAL

#### A. Granular Materials

1. Granular 'A', 'B', 'C' & 'D' in accordance with MTC Form 1000.
2. Crushed stone - Produce from bedded or massive rock formations or from boulders. Break into fragments to conform with following gradation requirements -

(A) Sieve Size	Passing By Weight
2-1/2 ins.	100 percent
1-1/2 ins.	75 percent
3/4 ins.	50 percent
No. 4 mesh	15 percent
No. 200 mesh	5 percent

## PART 2 PRODUCTS (Cont'd)

### PART 2.01 GENERAL (Cont'd)

#### B. Topsoil

1. Topsoil, free of wood and non-organic material.

#### C. Fertilizer

1. Use complete commercial fertilizers, in compliance with the Canadian Fertilizer Act, not less than 50 percent urea-formaldehyde and the following percentages by weight -

Nitrogen	Phosphoric Acid	Potash
10	10	10 or
10	20	10

#### D. Seed

1. Use certified seed meeting the requirements of the Seed Act of Canada, No. 1 seed.

##### (A) A mixture of -

55 percent creeping red fescue  
25 percent Canadian blue  
12 percent perennial ryegrass  
5 percent red top  
3 percent white Dutch clover

## PART 3 EXECUTION

### PART 3.01 CLEARING

- A. Carefully protect trees, shrubs and other vegetation designated to be saved during construction. Carefully carry out designated 'spot' or selective clearing.
- B. Cut and dispose of trees, brush, vegetation, windfalls, timber, fences and surface litter.
- C. Clear areas beyond easements only where specifically directed.

### PART 3.02 GRUBBING

- A. Remove and dispose of stumps, roots, imbedded logs, loose surface boulders and surface debris.

### PART 3.03 STRIPPING AND STOCKPILING TOPSOIL

- A. Strip topsoil within the limits of excavation and fill areas before grading, prevent damage to roots of trees and vegetation to be saved, stockpile in regular trapezoidal sections to a maximum height of 10 feet.

### PART 3.04 EXCAVATION AND GRADING

- A. Make cuts and fills employing excavating, compacting of subgrade, filling, loading, hauling and fine grading. Cross-sections on the Drawings show the limits of excavation, filling, sideslopes, toe of slope and limit of cut locations. Dispose of surplus excavated material off the site or in an area designated by the Engineer.

PART 3 EXECUTION (Cont'd)

PART 3.04 EXCAVATION AND GRADING (Cont'd)

- B. Soils on the site will be considered 'earth' except rock. Boulders and masonry exceeding 1 cu. yd. in volume will be termed 'rock'. Bury rock and boulders up to 1/3 cu. yd. in volume - not less than 4 feet below top of subgrade. Dispose of rock and boulders between 1/3 cu. yd. and 1 cu. yd., as earth, and rock and boulders would re-appear during grading.

PART 3.05 COMPACTION ON FILL AREAS

- A. Place fill in layers not exceeding 9-inches and compact with either a sheepsfoot roller or a pneumatic tire roller. Maintain optimum moisture in the fill and compact to 95 percent Standard Proctor Density.

PART 3.06 COMPACTION TESTS

- A. Where compaction of sub-grade, granular courses, granular base course and fill is called for, the Engineer may order compaction tests by an independent testing company. Tests will be arranged for by the Engineer and paid for by the Owner.
  - 1. Where tests show that the compaction does not meet the specified requirement, pay the costs for further compaction in a manner dictated by the Engineer, and pay for further testing to establish proof of the specified compaction.
  - 2. For fill compaction, tests will be made at every 18-inches maximum depth, after two 9-inch lifts have been placed. Granular courses will be tested at depths as directed by the Engineer.
  - 3. Co-operate with the Engineer and testing company by scheduling the placing and compaction of fill and granular courses so that tests can be progressively taken.

PART 3.07 SEEDING

- A. Spread and grade topsoil (from stockpiles) on slopes and other areas of cut and fill.
- B. Provide seeding on areas of cut and fill. Fertilize seeding areas.
- C. Preparation of Subgrade for Seeding.
  - 1. Verify the subgrade and if required make adjustments to allow for topsoil and seeding to finish level with adjacent surfaces.
  - 2. Scarify the backfill and disturbed areas to a minimum depth of 3-inches to produce an even, loose textured surface, free from stones, roots, branches larger than 3-inches in diameter, and live weeds.
  - 3. Have the finished subgrade approved by the Engineer prior to placing the topsoil.
- D. Preparation of Finish Grade
  - 1. Spread the topsoil evenly over the approved subgrade to a minimum of 4-inches. Compact to 80-85 percent Standard Proctor Density.
  - 2. Work the fertilizer into the top 1-inch of the topsoil by discing, raking or harrowing to provide a smooth, fine textured finish surface, and firm against footprints.
  - 3. Base quantities of fertilizer on the following minimum rates -
    - (A) 10 - 10 - 10 at 20 lbs/100 sq.yds or  
10 - 20 - 10 at 12 lbs/100 sq.yds with
    - (B) Superphosphate at 25 lbs/100 sq. yds.

PART 3 EXECUTION (Cont'd)

PART 3.07 SEEDING AND SODDING (Cont'd)

D. Preparation of Finish Grade (Cont'd)

4. Spread seed within 48 hours of working the fertilizer into the topsoil.

E. Seeding

1. Spread seed by means of a mechanical dry seeder, 'Brilliant' or equivalent at a rate of 30 lbs. per acre.
2. Spread seed in 2 intersecting directions at right angles to each other.
3. Work seed into the top 1-inch of the topsoil by raking or harrowing and compact so that the surface is smooth and firm.
4. After working the seed into the topsoil and compacting, water with sufficient amounts to ensure germination and continued healthy growth.
5. Time of Seeding

(A) The following periods are in order of preference -

- (1) July 15th to Sept. 15th
- (2) Early spring to May 30th

PART 3.08 RESTORATION

- A. Provide restoration of Works to the same or better condition as existed previous to this Contract.

PART 3.09 CLEAN-UP

- A. On a daily basis, as the Work proceeds, and on completion remove rubbish and surplus material from the site.
- B. Remove surplus topsoil from the site prior to completion.



SECTION 02815 - FINISH GRADING AND SEEDING

PART I GENERAL

PART 1.01 INTENT

- A. This Section covers the Work for Finish Grading and Seeding including:
1. Preparation of subgrade
  2. Preparation of finish grade
  3. Fertilizer
  4. Seeding
  5. Hydro-mulching
  6. Watering

PART 1.02 DAMAGE TO EXISTING TREES AND SHRUBS

- A. Take precautions to prevent damage to existing trees and shrubs; protect branches and foliage; protect trunks and stems; prevent machinery from travelling over roots within the "drip-line" of the trees.
- B. Where damage does occur, prune damaged area; provide tree dressing and burlap binding.
- C. Where trees or shrubs are damaged beyond recovery, and cannot be replaced by similar plant material of the same type and size, pay penalties as established by the International Society of Arboriculture's booklet entitled "A Guide to Professional Evaluation of Landscape Trees, Specimen Shrubs and Evergreens".

PART 1.03 EXISTING UTILITIES

- A. Contact the various utility authorities prior to commencing Work and become informed of the exact location of utilities, protect them during construction and assume liability for damage to utilities.
- B. Utilities that require relocation will be the responsibility of the utility authority concerned at no expense to the Contractor. Co-operate with the utility companies and always provide them with free access to their plant.
- C. Where existing overhead pole lines are adjacent to the excavation, temporarily support them to the approval of the Engineer and the utility authority concerned.

PART 1.04 EXISTING DRAINAGE

- A. Maintain temporary and permanent flow in sewers, drains gutters, ditches, watercourses, house and inlet connections.

PART 1.05 AREAS TO RECEIVE FINISH GRADING, AND SEEDING

- A. All areas of cut, fill and channel excavation are to receive finish grading and seeding.
- B. Make good areas disturbed beyond the limits of the Work.

PART 1.06 HANDLING AND STORAGE

- A. Store topsoil on site as directed by the Engineer.

PART 1 GENERAL (Cont'd)

PART 1.06 HANDLING AND STORAGE (Cont'd)

- B. Deliver fertilizer in standard containers, clearly marked with the name of the manufacturer, weight and analysis.
- C. Where the fertilizer is supplied in bulk, submit a statement to the Engineer indicating the same information as if it had been supplied in standard containers.
- D. Deliver seed in standard containers, clearly marked with the name of the distributor, weight and analysis.
- E. Store materials subject to deterioration resulting from weather or other causes on site in a dry, weatherproof place in a manner so that the effectiveness is not impaired.

PART 1.07 WEATHER AND SEASONAL CONDITIONS

- A. Proceed with the Work only in calm weather and on ground free of standing water.
- B. Do not proceed with the Work when wind conditions are such that material would be carried beyond the areas designated for the Work, or that the material would not be applied uniformly.
- C. Notify the Engineer a minimum of 7 days in advance of the proposed starting dates for the Work.
- D. Do not start the Work without the approval of the Engineer.

PART 1.08 GUARANTEE

- A. Replace seeding which, during the Guarantee Period, shows deterioration, or damage resulting from faulty materials or workmanship.

PART 1.09 SUBSTITUTIONS

- A. Substitution will not be allowed unless approved in writing by the Engineer.
- B. Give 3 weeks notice in writing to the Engineer when applying for substitutions.
- C. Submit in writing, to the Engineer, requests for price adjustments due to the substitutions.

PART 1.10 WATERING

- A. During the Work up to the date of acceptance provide necessary distribution equipment and supply water.

PART 1.11 RESPONSIBILITY

- A. Take care to prevent damage and contamination of structures, signs, rails, fences and utilities. Where such damage and contamination occurs, take remedial measures to the approval of the Engineer.
- B. Take precautions to ensure that the fertilizer in solution does not come in contact with the foliage of trees, shrubs, ground cover and vines. Should contamination occur, immediately spray the affected vegetation with water to remove the contamination.
- C. Have damage to planting repaired or replaced by qualified persons as required by the Engineer.

## PART 2 PRODUCTS

### PART 2.01 GENERAL

- A. Conform to latest Edition of Reference Standards.

### PART 2.02 TOPSOIL

- A. Use topsoil from the stockpile on site.
- B. Topsoil - fertile, friable natural loam containing 4 percent organic matter for clay loams and 2 percent minimum organic matter for sandy loams with acidity range of 6.0 pH to 7.5 pH and capable of sustaining vigorous plant growth, free of admixture of subsoil; clay lumps and from stones and roots over 2-inches in diameter and other foreign matter.

### PART 2.03 FERTILIZER

- A. Provide fertilizer.
- B. For the purpose of tendering use the following mixtures -

Nitrogen	Phosphoric Acid	Potash
10	10	10 or
10	20	10

### PART 2.04 SEED

- A. Certified seed meeting the requirements of the Seeds Act for Canada, No. 1 Seed.
- B. A mixture of -
- 55 percent Creeping Red Fescue
  - 25 percent Canadian Blue
  - 12 percent Perennial Ryegrass
  - 5 percent Red Top
  - 3 percent White Dutch Clover

### PART 2.05 WATER

- A. Provide water clear and free of impurities which would inhibit germination or otherwise adversely affect growth.

### PART 2.06 MULCH (FOR HYDRO-MULCHING)

- A. Use oat or wheat straw or approved equal, clean, dry and free of weeds and other foreign matter.

### PART 2.07 ASPHALT EMULSION

- A. Use refined petroleum asphalt emulsified in water and free of petroleum solvents or other components toxic to plant life, and
- B. Having a fluid consistency designed for cold spray application and no separation of the asphalt during transportation or within 30 days after arrival on site.
- C. Conform to the following specifications -
- Viscosity, 60 ml at 25 deg. C. - 17-40 S.S.F.
  - Residue by distillation - 55-58 percent
  - Settlement 7 days - 5 percent maximum
  - Demulsibility 50 ml of 0.1 N - 2.0 CaCl<sub>2</sub> maximum
  - Sieve Test - 0.10 maximum

### PART 3 EXECUTION

#### PART 3.01 PREPARATION OF SUBGRADE

- A. Scarify the subgrade to a minimum depth of 3-inches to produce an even, loose textured surface, free of stones, roots, branches and live weeds.
- B. Have the scarified subgrade approved by the Engineer prior to placing the topsoil.
- C. Where the subgrade has been established by others verify the elevations, make adjustments if necessary, then prepare the subgrade in the manner described above.

#### PART 3.02 PREPARATION OF FINISH GRADE

- A. Spread the topsoil evenly over the approved subgrade to bring the finished grade to the elevations shown on the Drawings. Maximum depth 6-inches, minimum depth 3-inches. Compact to 80-85 percent Standard Proctor Density.
- B. Work the fertilizer into the topsoil by discing, raking or harrowing to provide a smooth, fine textured finish surface. Compact to 80-85 percent Standard Proctor Density.
- C. For the purpose of tendering, base quantities of fertilizer on the following minimum rates -
  - 10 - 10 - 10 at 20 lbs/100 sq.yds.
  - 10 - 20 - 10 at 12 lbs/100 sq.yds.
- D. Spread seed within 48 hours of working the fertilizer into the topsoil.

#### PART 3.03 SEEDING

- A. Spread seed by means of a mechanical dry seeder, 'Brilliant' or equivalent at a rate of 150 lbs/acre.
- B. Spread seed in 2 intersecting directions at right angles to each other.
- C. Work seed into the top 1 inch of the topsoil by raking or harrowing and compact so that the surface is smooth and firm.
- D. After working the seed into the topsoil and compacting, water with sufficient amounts to ensure germination and continued healthy growth.

#### PART 3.04 TIME OF SEEDING

- A. The following periods are in order of preference:
  - 1. July 15th to September 15th
  - 2. Early spring to May 30th

#### PART 3.05 HYDRO-MULCHING

- A. On the same day, immediately following the seeding apply mulch to the seeded areas. Do not seed an area in excess of that which can be mulched on the same day.
- B. Apply mulch at a rate sufficient to form an even mat over the seeded area to a depth of 1-inch minimum and 2-inches maximum.
- C. Spray asphalt emulsion into the air stream of the mulch blower at a rate sufficient to form a cohesive mat. Not less than 100 gal/acre.
- D. To ensure that the asphaltic emulsion is distributed evenly throughout the mulch use not less than 2-inch nozzles.
- E. Do this work during calm weather conditions, taking special care to protect adjacent private grounds and residences.

PART 3.07 CLEAN-UP

- A. Promptly as the Work progresses, clean-up and remove from the site excess material generated by this Work.