



BURNSIDE

## **Bauman Drainage Works**

### **Township of Melancthon**

**R.J. Burnside & Associates Limited  
15 Townline  
Orangeville ON L9W 3R4 CANADA**

**August 2015  
300037592.0000**



August 5, 2015

The Mayor and Council  
Township of Melancthon  
157101 Highway 10  
Melancthon ON L9V 2E6

Mayor White and Members of Council:

**Re: Bauman Drainage Works**  
**File No.: D-ME-158**  
**Project No.: 300037592.0000**

Under the provisions of the Drainage Act R.S.O. 1990, Chapter D.17, Section 4 and in accordance with our appointment, we have made an examination and survey of the area and submit herewith, our report, plan, profile, specifications and assessments for the proposed work. The work is to be known as the Bauman Drainage Works.

Should there be any questions regarding the report, please contact the undersigned directly at 1-519-938-3077.

Yours truly,

**R.J. Burnside & Associates Limited**

T.M. Pridham, P.Eng.  
Drainage Engineer  
TMP:tw

Enclosure(s) Bauman Drainage Works Report

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## Table of Contents

<b>1.0</b>	<b>Background .....</b>	<b>1</b>
<b>2.0</b>	<b>Site Meeting .....</b>	<b>1</b>
<b>3.0</b>	<b>Area Requiring Drainage .....</b>	<b>1</b>
<b>4.0</b>	<b>Investigation .....</b>	<b>1</b>
<b>5.0</b>	<b>Proposed Design and Appurtenances .....</b>	<b>2</b>
<b>6.0</b>	<b>Allowances to Owners .....</b>	<b>2</b>
<b>7.0</b>	<b>Estimate of the Cost of the Work .....</b>	<b>3</b>
<b>8.0</b>	<b>Construction Assessment Schedule .....</b>	<b>5</b>
<b>9.0</b>	<b>Maintenance Provisions .....</b>	<b>6</b>
<b>10.0</b>	<b>Summary .....</b>	<b>7</b>

## Appendices

Drawing No. P1 Plan and Profile  
Appendix A Special Provisions  
Appendix B General Conditions  
Appendix C General Specifications (Tile Work)  
Appendix D Instruction to Bidders

## **1.0 Background**

On June 24, 2015 the Township of Melancthon received a petition for drainage works signed by Manassa Bauman, on behalf of M.B. Fasteners Inc., owner of Lots 261 and 262, Concession 3 SW. On July 2, 2015, Council accepted the petition and our firm was appointed to prepare a report under the provisions of the Drainage Act. Our appointment was acknowledged and a site meeting date set.

## **2.0 Site Meeting**

On August 1, 2015, a site meeting was held at the Henderson Drain culvert crossing on the 260 Sideroad in Concession 4 SW. The meeting was well attended and a good discussion took place. Mr. Bauman indicated the petition was submitted in order to provide an outlet for recently installed underdrainage in Pt. Lots 261 and 262, Concession 3 SW.

From our discussions it appeared a short length of closed drain in the northeast corner of Lot 261, Concession 4 SW (D. Labile) was required in order to extend the newly installed underdrainage to the Henderson Drain.

## **3.0 Area Requiring Drainage**

Based on the petition, discussions at the site meeting and our examination of the area, the area requiring drainage was determined as being Pt. Lots 261 and 262, Concession 3 SW comprising approximately 19.2 ha (47.5 ac). The petition, in our opinion, complied with Section 4(a) and 4(b) of the Drainage Act.

## **4.0 Investigation**

Our investigation found that a short length of closed drain in the northeast corner of Lot 261, Concession 4 SW was quite feasible. The outlet for the proposed work was the Henderson Drain which was an open drain last improved under a 1975 report. Our investigation further found that minor deepening of the open drain was required in order to accommodate the proposed work. This minor work can easily be provided pursuant to the provisions of Section 77(1) of the Drainage Act.

## 5.0 Proposed Design and Appurtenances

This report provides for the installation of 21 m of closed drain. The design is based on removing approximately 38.1 mm (1½ in) of surface and subsurface drainage water per hectare of watershed area per 24 hour period. The tile size required is 375 mm (15 in) diameter throughout.

Appurtenances associated with the work on private lands include the stripping and replacing of topsoil along the tile route, the connection of the existing underdrainage and the installation of quarried stone rip-rap on geotextile underlay as tile outlet protection.

The Plan and Profile (Drawing No. P1) indicates the location of the work and the lands affected by it; shows the dimensions, grades and other details of the work.

## 6.0 Allowances to Owners

The amounts to be paid in allowances to the owners entitled thereto under Section 29 - 33, where applicable, which shall become due in accordance with Section 62(3) and (4) are determined as follows:

Roll No.	Con.	Lot or Part	Owner	Damage to Lands, Crops, etc. (Section 30) \$
5-184-00	3 SW	261	M.B. Fasteners Inc.	50.00
5-205-00	4 SW	261	D. Labile	125.00
<b>Total Allowances Bauman Drainage Works</b>				<b>\$175.00</b>

The allowance for Damage to Lands, Crops, etc., pursuant to Section 30, is an allowance for the disruption created as a result of the construction activities. A disrupted area of 20 m along the tile route has been used to calculate the applicable compensation. The allowance granted has been based on \$3,000.00 per ha or \$1,200.00 per ac. The allowance granted is also considered sufficient to allow right-of-way for any future maintenance work that may be required.

A minimum damage allowance of \$50.00 was granted to the M.B. Fasteners Inc. property to compensate for any minor damage created by the removal of the existing stand pipe and the connection of the existing underdrainage to the upstream end of the proposed drain.

## 7.0 Estimate of the Cost of the Work

The estimate of the cost of all labour, equipment and material required to construct this project is as follows:

Item	Descriptions	Approx. Quantity	Cost Estimate
1.0	Supply and install 375 mm dia. HDPE outlet pipe with insert rodent grate including clear stone bedding, grading additional cover material and stripping and replacing topsoil (Sta. 000 to Sta. 006)	6 lin.m	\$750.00
2.0	Supply and place quarry stone rip-rap (500 mm thickness) on geotextile underlay as splash pad, embankment and tile outlet protection (Sta. 000)	20 sq.m	\$1,500.00
3.0	Supply and install 375 mm dia. HDPE pipe including clear stone bedding, grading additional cover material and stripping and replacing topsoil (Sta. 006 to Sta. 021)	15 lin.m	\$1,250.00
4.0	Remove existing vertical HDPE stand pipe and connect existing 300 mm diameter drainage tubing including stripping and replacing topsoil (Sta. 021)	L.S.	\$500.00
<b>Contingencies</b>			
5.0	Contingency for unforeseen conditions including additional clear stone bedding in areas of soil instability, etc.		\$500.00
<b>Total Estimated Cost for the Construction of the Bauman Drainage Works</b>			<b>\$4,500.00</b>

**Allowances to Owners**

Damage to Lands, Crops, etc. (Section 30).	\$175.00
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**Preparation of Report**

Site Meeting, Investigations and Field Survey, Design, Plan and Profile, Report Preparation including Allowances, Construction Assessment Schedule and Maintenance Provisions.	\$4,500.00
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**Meetings and Procedure**

Preparation of Report Copies for Distribution, Preparation and Attendance at the Consideration of the Report and Assistance on Procedure.	\$1,000.00
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**Tendering and Construction Inspection**

Preparation and Distribution of Tender, Inspections During Construction, Payment Certificates and Related Appurtenances and Project Finalization and Grant Application.	\$1,750.00
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**Administration and Financing**

Administrative Costs, Net HST (Construction and Engineering) and Interest Charges Incurred by the Municipality until the Cost is Levied.	\$575.00
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<b>Total Estimated Cost</b>	
<b>Bauman Drainage Works</b>	<b>\$12,500.00</b>

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**NOTE: The above summary contains cost estimates only. It is emphasized that these estimates do NOT include costs to defend the drainage report and procedures should appeals be filed with the Court of Revision, Ontario Drainage Tribunal and/or the Ontario Drainage Referee. Unless otherwise directed, additional costs to defend the report are typically distributed in a pro-rata fashion over the assessments contained in the Construction Assessment Schedule, excluding any Special Assessments.**

Also, in addition to the work included in the above estimate, should repairs, replacements, underpinning or other alterations be required for existing bridges, culverts, overflow culverts or any other structure necessary to conduct overflow water, or water in open channels under or across a road allowance, as affected by this drainage work, the work and cost thereof, including any necessary expenses incidental thereto, and if not determined otherwise, shall be the responsibility of and shall be assessed against the authority having control of such road or road allowance.

## **8.0 Construction Assessment Schedule**

This sum of \$12,500.00 is assessed as benefit and outlet liability against the lands affected according to the following Construction Assessment Schedule. Injuring liability is deemed not applicable.

Due to the difficulty understanding the term “outlet liability” a greater explanation of the upstream owner’s responsibility has been provided. To explain the obligations of the owners of higher lands under the Drainage Act of Ontario, the following is an excerpt from a decision given by the late Drainage Referee, his Honour Judge Sidney L. Clunis, in his Court at Windsor, Ontario on the first day of October 1975.

**“The Drainage Act has established machinery, as it were, the procedure, for dealing with disputes between high land and low land owners. The Act is designed to provide a fair method of apportionment of the cost of drainage works as between high and low lands. While it’s prime purpose was to increase the area of land that may be used efficiently for agricultural purposes, its secondary purpose was to avoid and settle disputes. It is the law of Ontario, that the owner of higher lands in which water arises, may be required to pay the cost of carrying that water to a proper outlet. This is the proportion of cost of this work which has been assessed against the lands of these appellants and other owners of high lands.”**

Lands used for agricultural purposes have traditionally been eligible for a one-third grant for assessments imposed under the Drainage Act. In the Construction Assessment Schedule, the designation ‘A’ indicates the property is considered eligible for grant. The eligibility may be confirmed or rejected subject to a provincial audit during the grant application process.



Bauman Drainage Works  
August 2015

In order to determine the approximate net cost for a particular property, two items need to be considered and deducted, where appropriate, from the total assessment as shown in the Construction Assessment Schedule. As previously outlined, the properties designated 'A' are considered agricultural and eligible for the one-third grant. Secondly, the allowances previously listed are payable to those properties shown and as such, also need to be deducted where appropriate to determine the approximate net cost.

### Construction Assessment Schedule

Roll No.	Owner	Con.	Lot or Part	Approx. ha Affected	Land Class	ASSESSMENTS		
						Benefit \$	Outlet Liability \$	Total \$
5-184-00	M.B. Fasteners Inc.	3 SW	Pt. 261 & 262	19.2	A	4,500.00	8,000.00	12,500.00
Total Lands						4,500.00	8,000.00	12,500.00
<b>Total Assessment</b>								
<b>Bauman Drainage Works</b>								<b>\$12,500.00</b>

## 9.0 Maintenance Provisions

After construction, the drainage works shall be maintained by the Township of Melancthon in accordance with Section 74 of the Drainage Act.

Section 74 of the Drainage Act states:

**“Any drainage works constructed under a by-law passed under this Act or any predecessor of this Act, relating to the construction or improvement of a drainage works by local assessment, shall be maintained and repaired by each local municipality through which it passes, to the extent that such drainage works lies within the limits of such municipality, at the expense of all the upstream lands and roads in any way assessed for the construction or improvement of the drainage works and in the proportion determined by the then current by-law pertaining thereto until, in the case of each municipality, such provision for maintenance or repair is varied or otherwise determined by an engineer in a report or on appeal therefrom.”**

Bauman Drainage Works  
August 2015

Should repair/maintenance costs be incurred by the drainage works in order to accommodate buried utilities such as gas lines, telephone cables, etc. or to relocate or perform repairs to any such plant, then under the provisions of Section 26 of the Drainage Act, the extra costs (including costs of permits, locates etc.) incurred by the drain, shall be borne by the utility affected.

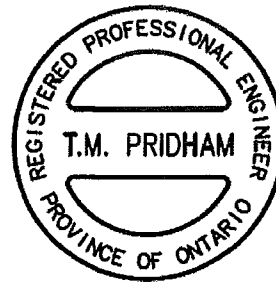
## 10.0 Summary

This report has been respectfully prepared based on our investigation and subsequent discussions with the affected owners and Municipal representatives. The report and final design takes into consideration all of the comments expressed.

**R.J. Burnside & Associates Limited**



T.M. Pridham, P.Eng.  
Drainage Engineer  
TMP:tw





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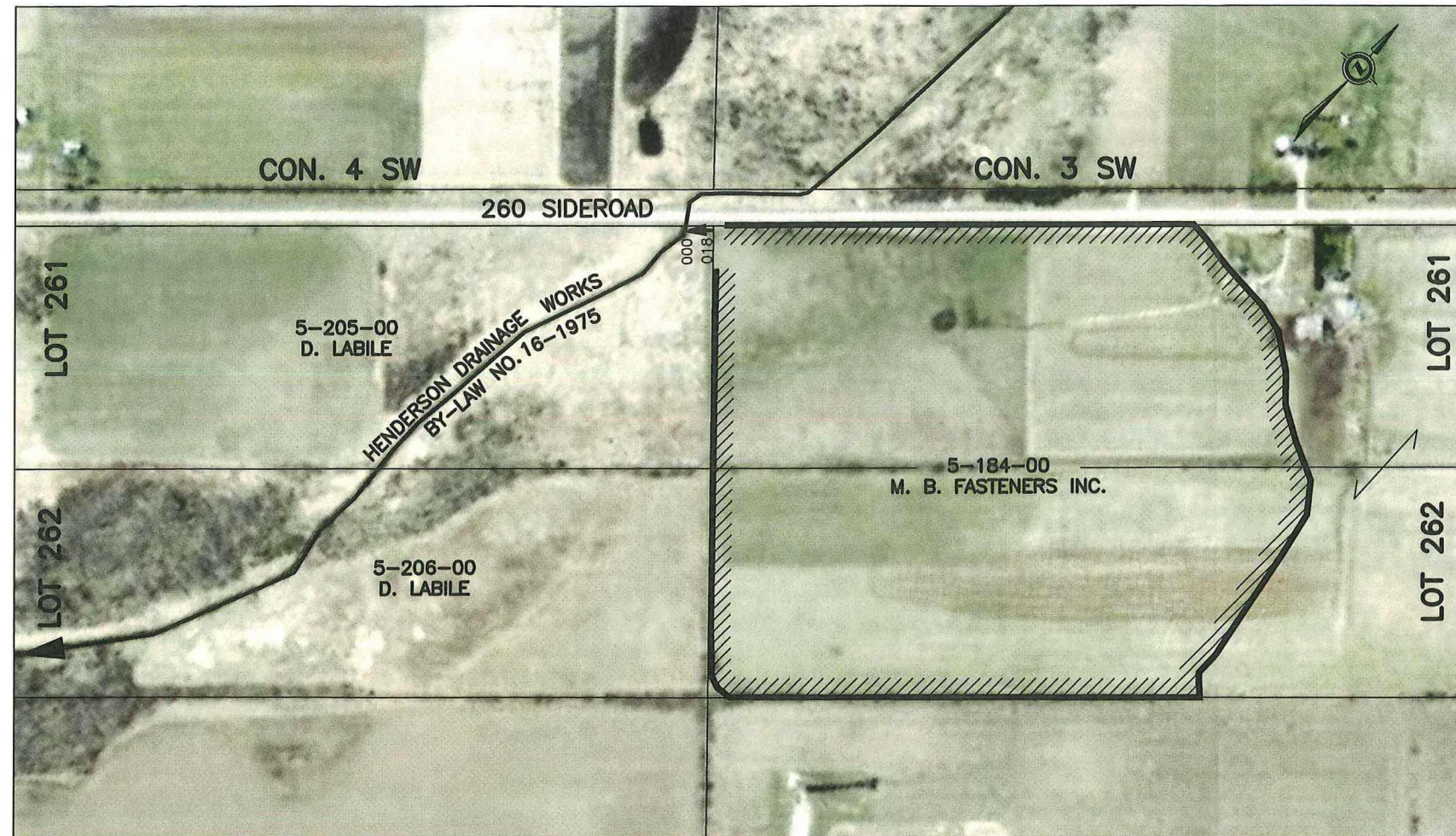
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**Drawing No. P1**

**Plan and Profile**

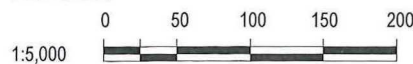




# LEGEND

	APPROXIMATE WATERSHED LIMITS
	DRAIN ROUTE
018	STATION
5-184-00	ASSESSMENT ROLL NO.

# SCALE



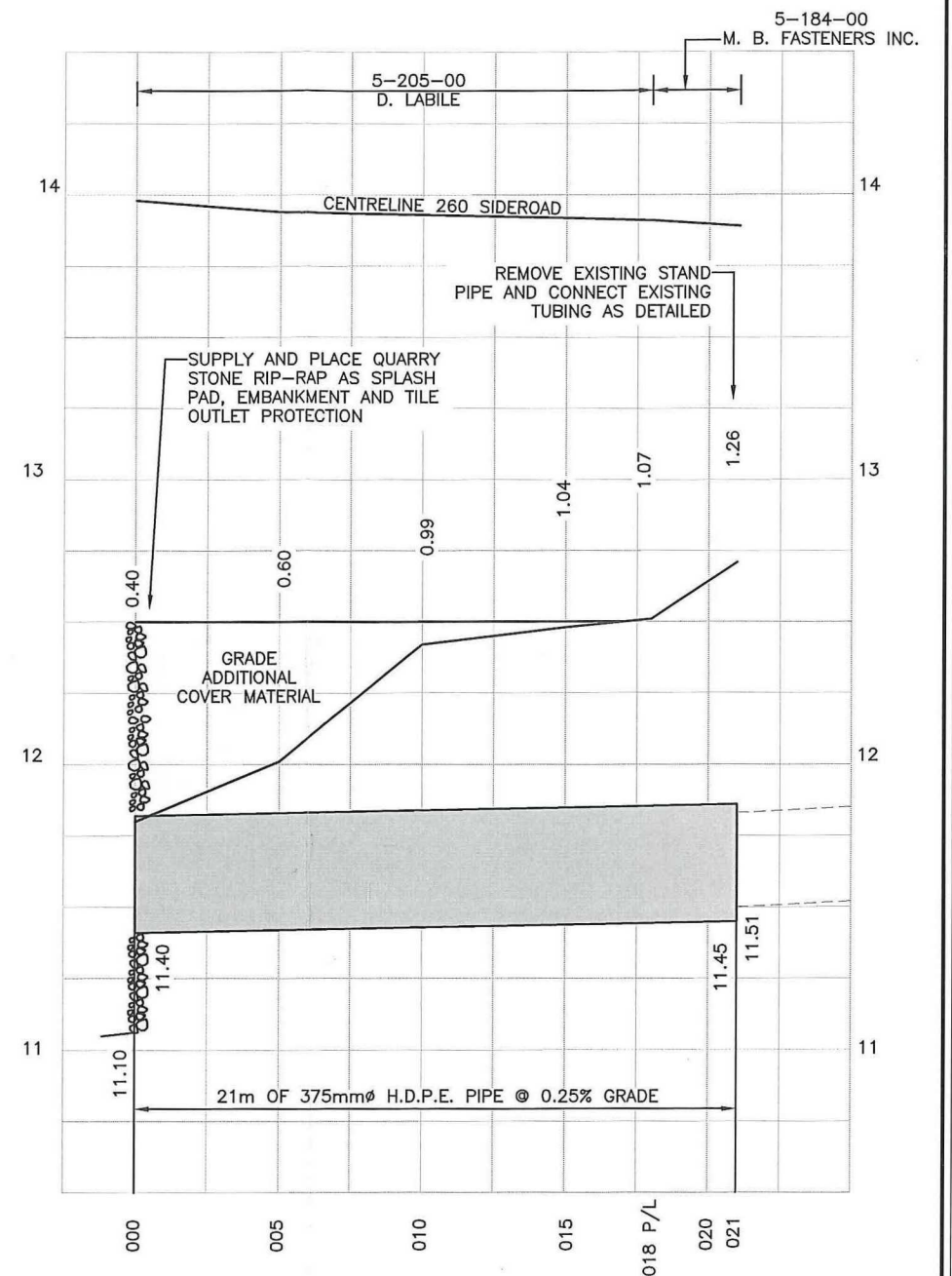
# PLAN

THE PROPERTY LINES SHOWN ON THIS PLAN ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY.

# BENCHMARK

STA. 000 TOP CENTRE UPSTREAM SPCS 22m NORTH  
ELEV. = 13.35

NOTE: ELEVATION DATUM SAME AS  
HENDERSON DRAINAGE WORKS, 1975.



# PROFILE

SCALE H=1:250  
V=1:25

- Notes
- This drawing is the exclusive property of R. J. Burnside & Associates Limited. The reproduction of any part without prior written consent of this office is strictly prohibited.
  - The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to this office prior to construction.
  - This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

No.	Issue / Revision	Date	Auth.
1	ISSUED FOR DRAINAGE REPORT	2015/08/05	TMP



T. M. Pridham, P. Eng.



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web www.rjburnside.com

Client

**TOWNSHIP OF MELANCTHON**

157101 HIGHWAY 10  
MELANCTHON, ON  
L9V 2E6

Drawing Title

**BAUMAN DRAINAGE WORKS**

PLAN AND PROFILE

Drawn AKB	Checked TMP	Date 2015/08/05	Drawing No. <b>P1</b>
Scale AS SHOWN	Project No. 300037592.0000		





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## Appendix A

### Special Provisions

## **APPENDIX A**

### **SPECIAL PROVISIONS**

R.J. BURNSIDE & ASSOCIATES LIMITED  
Engineers, Hydrogeologists, Environmental Consultants  
15 Townline  
Orangeville, Ontario  
L9W 3R4

### **DRAINAGE SPECIFICATIONS**

One complete set of plan, profile and specifications shall be kept by the operator at the construction site at all times.

These specifications, including report, plan and profile of the same date apply to and govern, where applicable, the construction of the

### **BAUMAN DRAINAGE WORKS**

Township of Melancthon

### **EXTENT OF THE WORK:**

21 m of Closed Drain plus Related Appurtenances

### **SPECIAL PROVISIONS:**

#### **CLOSED WORK - GENERAL**

All pipe shall be smoothwalled polyethylene pipe (HDPE) per Boss 2000 (320 kPa) with split coupler joints or an approved equivalent.

Throughout the work the topsoil shall be stripped and replaced.

The HDPE pipe shall be installed on a minimum of 100 mm Granular 'A' or 19 mm clear stone bedding. In the event additional bedding material is required it will be paid for as an extra.

## **STA. 000 TO STA. 021**

Prior to construction, the existing fence shall be removed by the Owner. The HDPE pipe shall be installed on the south side of the existing stakeline.

From Sta. 000 to Sta. 015, additional cover material from the existing spoil bank on the east side of the open drain shall be graded to the north to provide additional cover material for the new HDPE pipe. The fill shall be graded to elevation 12.50 m.

At Sta. 000, roughly 20 sq.m of 150 mm to 300 mm dia. quarried stone shall be placed as bank protection and a splash pad at the new outlet pipe. The rip-rap shall be placed roughly 500 mm thick on geotextile underlay as directed by the Engineer at the time of construction. The geotextile underlay shall be Terrafix 270R or an approved equivalent. In the event extra rip-rap material is required it will be paid for as an extra.

At Sta. 021, the existing vertical HDPE stand pipe shall be carefully removed and left at the site for the Owner. The existing 300 mm diameter tubing shall be inserted with the new HDPE pipe. The connection shall be completely wrapped with filter material prior to backfilling. The filter material shall be Terrafix 270R or an approved.

## **WORKING SPACE**

The width of the working space for the construction, maintenance and repair of the Bauman Drainage Works shall be as follows:

The working space shall be an average of 20 m along the drain route to allow for stripping, stockpiling and releveling of the topsoil.

## **ACCESS ROUTES**

Access to the working space shall be off the 260 Sideroad.



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## Appendix B

### General Conditions



## **APPENDIX B**

### **GENERAL CONDITIONS**

1. MUNICIPALITY means the Corporation of the Township awarding the Contract.
2. ENGINEER means the Project Engineer of R.J. BURNSIDE & ASSOCIATES LTD., Municipal Drainage Consultants, who shall decide on questions arising under the Contract Documents as to the interpretation of specifications or performance of the work.
3. INSPECTOR, if any, means the representative of R.J. BURNSIDE & ASSOCIATES LTD. who is authorized to inspect and to oversee the construction process.
4. DRAINAGE SUPERINTENDENT OR COMMISSIONER, if any, means the person or persons appointed by the Municipality to assist in the construction of the drainage works.
5. CONTRACTOR means the Corporation, Company or person having been awarded the Contract.
6. CONTRACT means the signed proposal or tender offered by the Contractor and accepted by signature on behalf of the Municipality and which shall be a formal and binding document.
7. BENCH MARKS means the permanently established level marks, recorded on the profile as to description, location and elevation and which shall govern the drainage work. It is an offence under the Drainage Act to interfere with, remove or destroy any bench mark.
8. STAKES mean survey marks set twenty-five metres apart and at all fences or as shown on plan and profile and are for vertical control only. The Contractor shall not be held liable for the cost of replacing any stakes, except stakes destroyed during construction.
9. PROFILES show the cuts or depths from the ground at the numbered side of the stakes and from the average bottom of the present open drain to the gradeline, which shall be at the bottom of the finished drain or the invert of the tile, as the case may be. The cuts or depths are indicated in metres and parts thereof, but the bench marks must govern.
10. FENCES mean enclosures by wire, railing, or otherwise, which may be removed by the Contractor to the extent necessary for the construction, but they shall be repaired to as good a condition as found. In no case shall a fence be left open or unguarded. Watergates, where required, shall be constructed as part of the work.
11. HEAVY STONE RIP-RAP AND SPILLWAYS shall in general be keyed in place and a minimum of 500 mm thick at the toeline and fitting the contours and slopes of the banks. All installations shall include Mirafi P150 filter mat or an approved equivalent. Spillways shall have a minimum slope of 2:1 (horizontal to vertical) and shall be shaped to guide the flow over the centre.

12. HIGHWAYS AND ROAD AUTHORITIES, Governmental Departments, Public or Private Utilities shall be notified in advance by the Contractor before performing any work affecting land or properties under their jurisdiction. The Contractor shall guard against damaging pipes, conduits, cables, etc. All work on roads, utility lands, etc. as to construction methods, location, type of pipes, catch basins and grates, disposal of excess material, general clean-up, etc. shall be under the direction and supervision of the authority having jurisdiction. (See Instruction to Bidders, Item 6.)
13. SEEDING permanent grass mixture, Creeping Red Fescue 35 Kg, Perennial Ryegrass 17 Kg, and Wild White Clover 6 Kg per ha. or equivalent, all Canada No. 1 grass mixture. Total 58 Kg per ha.
14. UNSTABLE SUBSOIL OR ROCK conditions, previously unknown to exist, but which may make alterations necessary, shall immediately be reported to the Engineer. Changes subsequently authorized shall not release the Contractor from obligations under his Contract.
15. MINOR CHANGES mean necessary alterations made by the Engineer as the work progresses. An amount proportionate to the amount contained in the tender being added to or deducted from the contract price to cover such changes.
16. WORKING SPACE shall mean a strip of land reasonably close to the drain and necessarily used for and during construction and shall in general be 25 m or less.
17. REASONABLE ACCESS TO THE WORK AREA shall be provided by any owner receiving allowances for damages.
18. POWER TO ENTER. Under Sec. 63 of the Drainage Act, the Contractor is entitled to enter upon whatever lands are necessary to complete the work within the designated working space. Interfering with or obstructing the contractor is an offence.



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## Appendix C

### General Specifications (Tile Work)

## **APPENDIX C**

### **GENERAL SPECIFICATIONS (TILE WORK)**

1. **LINE OF CONSTRUCTION** shall in general be as staked, but the drain shall run straight throughout each course and at intersections it shall run on a smooth and gradual curve.
2. **CLEARING** for tile shall mean the removal of trees, brush, stumps, heavy stones or other obstructions for a minimum width of 15 metres on each side of the drain, and in open land shall be left in piles. It shall be left to the owner to salvage any wood or timber.
3. **MATERIAL**, whether or not supplied by the Municipality, shall be arranged for and shall be accepted, or rejected if not first quality, by the Contractor at the site on delivery. Any excess or unused portions shall be stockpiled at a location determined by the Municipality.
4. **TRENCHING AND LAYING** shall in general be done by a wheel trencher together with accurate grade controls. The tile shall be laid with the invert at the gradeline with joints fitting properly. The minimum trench width shall be equal to the outside diameter of the tile plus 150 mm.
5. **BLINDING** shall be made as rapidly as is consistent with the construction progress. After inspection, the trench shall be backfilled. Minimum cover to natural surface shall in general be 750 mm.
6. **TRIBUTARY TILE** shown on the profile shall be connected as part of the work. Existing tile not shown shall be connected as extra work. A sufficient length of pipe, in general one size greater in diameter, shall be used through the bottom of a graded overflow run-way or if reconnection is to be made across a trench.
7. **OUTLET PROTECTION** shall in general be a length of standard metal pipe with a hinged rodent-proof grate. The end of the pipe shall be rip-rapped with heavy stone, which shall also extend into the bottom of the open drain. Overflow water shall not be directed over the tile outlet.
8. **GRADED OVERFLOW RUNWAYS** shall be constructed by cutting down the banks of a ditch that is being replaced by a tile drain. In no case shall its elevation be such as to hinder the free flow of surface water. It shall be graded to such condition that it may be cultivated by use of ordinary farm machinery. Grassed runways are recommended on heavy grades, but shall be left to the owner, if not otherwise specified.
9. **CATCHBASINS** shall in general be constructed of concrete (20 MPa) sides and bottom minimum 150 mm thick, inside dimensions 600 x 600 mm with a 300 mm sump, poured in place or pre-fabricated. The top shall be a standard Ministry of Transportation riveted grade or a welded metal fram with iron bars on 50 mm centres. Provisions must be made for surface water to enter, or catchbasins may be off-set into the overflow runway. A 200 mm dia. tile as cross-connection is in general sufficient. Backfill shall be firmly packed and all tile connections, bottom and side joints, shall be grouted in cement mortar.

10. JUNCTION BOXES shall be of concrete with tile grouted and fitting properly.
11. DAMAGES to crops within the working space shall not be the liability of the Contractor, nor damages to livestock or by livestock occasioned by leaving trenches open for inspection. He shall, however, give the owner concerned a reasonably advanced notice. The Contractor will be held liable for any such damages if the backfilling is delayed more than 10 days after the acceptance of the work, weather conditions permitting. (See instructions to Bidders, Item 4.)



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## Appendix D

### Instruction to Bidders

## **APPENDIX D**

### **INSTRUCTIONS TO BIDDERS**

1. **TENDERS**, submitted on the prescribed form and accompanied by the required bid deposit in favour of the Municipality, will be considered and contracts awarded only in the form of a lump sum for the completion of the whole works, or of such portions as specified in the tender call.
2. **INVESTIGATIONS** in regard to plans, profiles, specifications, the location and extent of the work should be made by the bidders themselves before tendering, and any doubt as to the exact meaning of any of the relevant documents or their intentions must be removed before signing the Contract; thereafter, the Contractor shall be bound by the decisions of the Engineer on all points.
3. **GUARANTY BONDS** covering the faithful performance of the Contract may be required by the Municipality prior to awarding the Contract.
4. **CLAIMS OR LIABILITIES** resulting from accidents, damages, losses, etc. directly or indirectly arising out of the Contract or manner of performance thereof, and if not otherwise provided for, shall be the responsibility of the Contractor. The Municipality may require proof of his insurance against any or all liabilities prior to awarding the Contract, or may withhold an equal amount to claims filed from payments then due.
5. **FAULTY MATERIAL OR WORKMANSHIP** shall be the responsibility of the Contractor at his own expense for a period of one year from the date of final acceptance of the work, and he shall remedy any defect and pay for any damage therefrom which may appear within such period and neither the final certificate nor payments thereunder shall relieve him from such responsibility under or by virtue of the signed Contract.
6. **PERMITS AND SUPPLEMENTARY SPECIFICATIONS** shall be obtained by the Contractor at his own expense before performing any work affecting any Road, Right-of-Way, Land or Property of any Governmental Department, County or Township, or of any Public or Private Utility, and he shall perform the work as though said specifications were hereto attached.
7. **PAYMENTS** up to 80% of the value of the work completed may be made by the Municipality on the written certificate of the Engineer, with a holdback payable after 45 days from the date of final acceptance. The Municipality may require the Contractor to furnish a complete release from sub-contractors or of all liens arising out of the Contract (other than his own) before the final payment shall become due.
8. **FINAL INSPECTION** will be made within two weeks after notice has been received from the Contractor that the work has been completed, or as soon thereafter as weather conditions permit. All work must at that time have the full dimensions, grades, etc. as specified and the general clean-up must be fully completed. If deficiencies are found, which should have been known to the Contractor as not complying with the specifications, the cost and expenses incidental to such inspection shall, due to his negligence, become the liability of the Contractor and may be deducted from the Contract price.

9. STATEMENTS OF SATISFACTION, voluntarily signed by the owners in regard to the treatment of the spoil, the clearing, the fences, the general clean- up, etc. may release the Contractor from further obligation in that regard.
10. TERMINATION OF CONTRACT: All work must be completed within the time limit as specified by or as extended under the Contract. If at any time, the Engineer should certify in writing, that the work is unnecessarily delayed or that conditions of the Contract are being violated, the Municipality shall have the power to terminate by written notice all work thereon, but reserving all claims against the Contractor for breach of Contract. If, however, the work has not been completed on or before the date fixed, the Contractor may apply in writing for an extension prior to the expiry date of his Contract.