Court File No. CV-23-00001165-0000

ONTARIO
SUPERIOR COURT OF JUSTICE

IN THE MATTER OF the *Drainage Act*, R.S.O. 1990, Chapter D. 17

AND IN THE MATTER OF an Application by the Corporation of the Municipality of Chatham-Kent for certain orders of the Drainage Referee with respect to construction of the Shaw Branch of the Facey East Drain and By-law No. 93-2021

B E T W E E N:

CORPORATION OF THE MUNICIPALITY OF CHATHAM-KENT

Applicant

- and -

CANADIAN PACIFIC RAILWAY COMPANY

Respondent

APPLICATION pursuant to Section 106 of the *Drainage Act*. R.S.O. 1990, c. D.17

NOTICE OF CONSTITUTIONAL QUESTION

1. The Respondent, Canadian Pacific Railway Company ("**CPRC**"), hereby gives notice under section 109 of the *Courts of Justice Act*, RSO 1990, c C.43, that it intends to question the constitutional applicability and operability of:

(a) the Ontario *Drainage Act*, RSO 1990, c D.17 (the "***Drainage Act***") as amended, including sections 1, 4, 21-26, 58, 63, 69 and 106 thereof; and

(b) By-law No. 93-2021 of the Corporation of the Municipality of Chatham-Kent (the "**By-Law**").

The question is to be argued

☐ In person

☐ By telephone conference
☒ By video conference

at the following location:

425 Grand Ave W, Chatham, Ontario N7M 6M8

on a day to be set by the registrar.

The following are the material facts giving rise to the constitutional question:

Overview

2. In this Application, the Corporation of the Municipality of Chatham-Kent seeks orders under the *Drainage Act* giving effect to the By-Law, which purports to authorize construction of a drainage pipe underneath lands and railway tracks owned by the respondent CPRC. These lands are used as an active interprovincial and international rail corridor. Interprovincial and international railways fall within exclusive federal jurisdiction under the *Constitution Act, 1867* ("**federally-regulated railways**"). The *Drainage Act* purports to empower Ontario municipalities to order the construction of drainage works, including across lands owned by federally-regulated railways.

3. The *Drainage Act* and the By-Law are constitutionally inapplicable to CPRC under the doctrine of interjurisdictional immunity, which provides that a provincial law cannot impair the core of a federal head of power or a vital part of a federal undertaking, such as a federally-regulated railway. The physical structure of such a railway is a vital part of the undertaking and falls within the core federal power. As the *Drainage Act* and the By-Law interfere with the physical structure of CPRC's federally-regulated railway and require the construction of new works on the railway, they are inapplicable to CPRC.

4. Additionally or in the alternative, the *Drainage Act* and the By-Law are inoperative under federal paramountcy. Under the doctrine of federal paramountcy, federal law prevails over provincial law to the extent of any conflict between them. A provincial law also cannot frustrate the purpose of a federal law. The *Drainage Act* and the By-Law operationally conflict with provisions of the federal *Canada Transportation Act*, SC 1996, c 10 (the "***CTA***") and the *Railway Safety Act*, RSC 1985, c 32 (4th Supp) (the "***RSA***") and frustrate the purpose of these laws.

5. The *CTA* and the *RSA* provide a comprehensive scheme for the construction of utility crossings, including drainage works, of federally-regulated railways. Under the *CTA* and the *RSA*, construction of a utility crossing of a federally-regulated railway requires either the agreement of the affected railway or an order of the Canadian Transportation Agency (the "**Agency**"). However, the *Drainage Act* and the By-Law purport to authorize construction of drainage works across CPRC's railway lands without CPRC's agreement or an Agency order, leading to a direct operational conflict. In addition, the *Drainage Act* deprives the Agency of the exclusive authority given to it by the *CTA* and the *RSA* to resolve disputes regarding the construction of utility crossings and the apportionment of costs. The *Drainage Act* and the By-Law must yield to the *CTA* and the *RSA*.

Background

6. CPRC operates a 32,000 km interprovincial and international Class I railway in North America, which connects various provinces within Canada, as well as to the United States and Mexico.

7. As an interprovincial and international railway, CPRC is a federally-regulated undertaking and falls within federal legislative jurisdiction. The *Constitution Act, 1867* assigns the federal

Parliament exclusive authority to "make Laws in relation to...Railways...connecting the Province with any other or others of the Provinces, or extending beyond the Limits of the Province."[1] As described in greater detail below, the Agency is empowered to resolve any disputes related to the construction or cost apportionment of utility crossings, including drainage works, pursuant to the *CTA* and the *RSA*.

8. The Corporation of the Municipality of Chatham-Kent is a single-tier municipality pursuant to the Ontario *Municipal Act, 2001*, SO 2001, c 25. Municipalities in Canada are creatures of the provincial legislatures pursuant to the provinces' constitutional jurisdiction regarding "the Municipal Institutions in the Province" and "Generally all Matters of a merely local or private Nature in the Province."[2] From a division of powers perspective, the power of municipalities to make by-laws derives from and cannot be broader than provincial jurisdiction.

The Drainage Act

9. The *Drainage Act* provides a statutory scheme for the construction of drainage works in Ontario. Among other things, the *Drainage Act* provides as follows:

(a) A petition for drainage by the construction of drainage works may be filed with the clerk of the local municipality by a prescribed number of owners in the surrounding area (s. 4(1));

(b) Upon receipt of the petition, the municipal council shall consider it and determine whether to proceed with the drainage works (s. 5(1));

[1] *Constitution Act, 1867* (UK), 30 & 31 Vict, c 3, s 92(10)(a), reprinted in RSC 1985, Appendix II, No 5.
[2] *Constitution Act, 1867*, ss 92(8), 92(16).

(c) If the municipality decides to proceed, it shall appoint an engineer to examine the area and prepare a report, which shall include plans for the drainage works, an estimate of the total cost, and an apportionment of the costs among landowners (ss. 8(1), 21-25);

(d) The *Drainage Act* also provides that the engineer may issue assessments against "public utilities", which are defined to include "a person having jurisdiction over any...railways however operated...or any similar works supplying the general public with necessaries or conveniences" (s. 1).[3] Section 26 states that a public utility "shall be assessed for and shall pay all the increase of cost of such drainage works caused by the existence of the works of the public utility" (s. 26);

(e) In the engineer's report, the engineer shall estimate allowances to the owner of any land used for the construction, repair, or future maintenance of the drainage works, and shall include these sums in the cost estimate (s. 29);

(f) Upon receipt of the engineer's report, the municipality may determine whether it intends to proceed with the drainage works, and if so, it shall pass a provisional by-law adopting the report (ss. 39-45);

(g) The municipality may then pass a final by-law authorizing the construction of the drainage works as set out in the engineer's report (s. 58);

(h) The contractor engaged in the construction of the drainage works may enter upon whatever lands are necessary to complete the work within the space designated in

[3] See note 9, below.

the engineer's report (s. 63(1)). Anyone who interferes with or obstructs the contractor constructing the drainage works is guilty of an offence and is liable to a fine of up to $1,000 (s. 63(2));

(i) A drainage referee appointed pursuant to the *Drainage Act* may, among other things, "determine the validity of, or to confirm, set aside or amend any petition, resolution of a council, provisional by-law or by-law relating to a drainage works under this Act", "determine claims and disputes arising under this Act", and "entertain applications for orders directing to be done anything required to be done under this Act" (s. 106).

The Drainage Works

10. Pursuant the *Drainage Act*, on February 19, 2021, Spriet Associates Engineers & Architects prepared a report (the "**Engineer's Report**") recommending the construction of the Shaw Branch of the Facey East Municipal Drain (the "**Drainage Works**") in the Municipality of Chatham-Kent (the "**Municipality**"). According to the Engineer's Report, the purpose of the Drainage Works is to serve part of Lots 3 and 4, Concession 3 (Community of Zone) in the Municipality. A copy of the Engineer's Report is attached as **Schedule "A"**.

11. According to the recommendation in the Engineer's Report, the Drainage Works are to be constructed commencing at the East Branch of the Facey Drain and travel northwesterly to just within the limits of lands owned by A. & D. Miller. The total length of the Drainage Works recommended in the Engineer's Report is 43 linear metres.

12. To construct the Drainage Works, the Engineer's Report stated that a new crossing would be required underneath lands owned by CPRC, being PIN 00627-0055 (LT), legally described as

Part Lot 3-5, Concession 3, Zone Township (the "**Railway Lands**"). The Railway Lands are currently used as an active rail operating corridor known as the Windsor Subdivision, which is part of CPRC's federally-regulated railway. Constructing the Drainage Works would therefore require tunneling under railway tracks in active use by CPRC.

13. According to the Engineer's Report, the recommended crossing under the Railway Lands would be a 16-metre long, 250mm diameter, 7.9mm thickness smooth wall steel pipe, which would require construction by "jack and bore to minimize disruption to rail traffic".

14. According to the Engineer's Report, the total estimated cost for the Drainage Works is $36,500. The Engineer's Report recommended that this cost be allocated among various landowners as follows, based on the engineer's purported assessment of the benefit of the Drainage Works to surrounding landowners:

(a) $300 in costs to Huston Farms Inc.;

(b) $7,601 in costs to A. & D. Miller; and

(c) $8,489 in costs to CPRC.

15. CPRC denies that it receives any benefit from the Drainage Works. The Drainage Works are not necessary to support CPRC's operations and offer it no benefit. CPRC owns and maintains its own drainage infrastructure across its network, which is designed to handle all water generated along its right of way.

16. The Engineer's Report also stated that, in accordance with section 26 of the *Drainage Act*, a special assessment was being made against CPRC for $20,110, representing "the increased cost

to the [Drainage Works] for boring a 250mm diameter smooth wall steel pipe across their right-of-way on the Shaw Branch due to the construction and operation of their rail line" (the "**Special Assessment**").

17. The Engineer's Report assigned CPRC responsibility for 46.8% of future maintenance costs associated with the Drainage Works. The Engineer's Report also stated that "[r]epairs or improvements to any railway culvert or sub-surface crossing required by the performance of this work and for future repair and/or replacement, shall be the responsibility of [CPRC], entirely at their cost".

The Municipality purportedly authorizes construction of the Drainage Works

18. On May 31, 2021, the Municipality's Council adopted the By-law (By-Law No. 93-2021) pursuant to the *Drainage Act*. The By-Law purported to finally adopt the Engineer's Report and provide that the Drainage Works shall be completed in accordance with the Engineer's Report, including the assessment of costs and the Special Assessment. A copy of the By-Law is attached as **Schedule "B"**.

19. On October 26, 2021, the Municipality wrote to CPRC and requested confirmation that CPRC would bear the portion of the costs of the Drainage Works that the Municipality had assigned to it. On November 26, 2021, CPRC responded and advised of its position that:

(a) the *Drainage Act* does not apply to CPRC, an interprovincial Class I railway that connects Ontario with the rest of Canada and North America, and in particular, does not authorize the Municipality to assess costs against CPRC in respect of the Drainage Works;

(b) rather, the *CTA* provides the applicable process to resolve cost disputes in respect of crossings involving federal railway lands;

(c) in any case, the proposed Drainage Works would provide no benefit to CPRC's operations, as CPRC maintains its own drainage infrastructure and did not need a redundant drainage system;

(d) CPRC would not flow water into, along or out of the proposed Drainage Works;

(e) the Municipality should be responsible for the cost of installing and operating the Drainage Works; and

(f) CPRC was prepared to enter into its standard pipe crossing agreement with the Municipality, under which CPRC would authorize the Municipality to access CPRC's right of way for the purpose of installing the Drainage Works.

This Application

20. On July 5, 2023, the Municipality commenced this Application against CPRC, seeking orders pursuant to sections 63 and 106 of the *Drainage Act* that, among other things:

(a) construction of the Drainage Works proceed forthwith in accordance with the Engineer's Report, as finally adopted under the By-Law;

(b) the Municipality and its agents are authorized to complete the Drainage Works as specified in the Engineer's Report, and for that purpose, enter upon CPRC's lands for the purposes of carrying out the Drainage Works, "provided that such entry shall

be carried out in a manner that respects the rights of each party, including in respect of rail safety and operational concerns"; and

(c) upon completion of the Drainage Works, CPRC pay to the Municipality the amounts assessed to it pursuant to Engineer's Report and the By-Law.

21. A copy of the Notice of Application is attached as **Schedule "C"**.

The following is the legal basis for the constitutional question:

The Drainage Act and the By-Law are constitutionally inapplicable to CPRC under interjurisdictional immunity

22. As set out above, interprovincial and international railways, including CPRC, fall within exclusive federal legislative jurisdiction pursuant to sections 91(29) and 92(10)(a) of the *Constitution Act, 1867*.

23. Under the constitutional doctrine of interjurisdictional immunity, a provincial law cannot impair the core of a federal head of power or a vital part of a federal undertaking. If impairment occurs, the provincial law will be read down so that it is inapplicable to the federal undertaking. In other words, the federal undertaking is immune from the provincial law.

24. The physical structure of an interprovincial or international railway is a vital part of the undertaking and falls within the core federal power. The physical structure of a railway includes the tracks and the associated track structure, the grade and subgrade, embankments and cuts, drainage facilities, bridges, tunnels, and other crossings along the right of way.[4] Any provincial

[4] *Canadian National Railway Co v Canadian Transportation Agency*, 1999 CanLII 9117 (FCA) at para 8.

law that purports to alter the physical structure of a federally-regulated railway or require the creation of new works along the railway is inapplicable to the railway.[5]

25. As the Judicial Committee of the Privy Council explained in the seminal 1899 decision *Canadian Pacific Railway Co. v. Notre Dame de Bonsecours*:

> Accordingly, the Parliament of Canada has, in the opinion of their Lordships, exclusive right to prescribe regulations for the construction, repair and alteration of the railway, and for its management, and to dictate the constitution and powers of the company.....It was obviously in the contemplation of the [*Constitution Act, 1867*] that 'railway legislation,' strictly so called, applicable to those lines which were placed under its charge, should belong to the Dominion Parliament. It therefore appears to their Lordships that any attempt by the Legislature of Quebec, to regulate by enactment, whether described as municipal or not, the structure of a ditch forming part of [Canadian Pacific's] authorized works, would be legislation in excess of its powers.[6]

26. The same year, in *Madden v. Nelson & Fort Sheppard Railway*, the Judicial Committee of the Privy Council confirmed that under *Bonsecours* "any direction of the Provincial Legislature to create new works on the railway and make a new drain and to alter its construction would be beyond the jurisdiction of the Provincial Legislature."[7]

27. Consistent with these authorities, courts have over the decades held that federally-regulated railway undertakings are immune from provincial drainage laws.[8] Any crossing at grade, over, or under an interprovincial or international railway is inherently dangerous and can interfere with the railway's critical transportation operations — the essence of its federal mandate. As explained further below, federal law provides a well-developed statutory scheme that gives the Agency

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[5] *Canadian Pacific Railway v Notre Dame de Bonsecours (Parish)*, [1899] AC 367 (PC) ("*Bonsecours*") at para 7; *Madden v Nelson & Fort Sheppard Railway*, [1899] AC 626 (PC) ("*Madden*") at para 2; *Construction Montcalm Inc v Min Wage Com*, [1979] 1 SCR 754 at 772-773; *Canadian Western Bank v Alberta*, 2007 SCC 22 at para 52.
[6] *Bonsecours* at para 7 (emphasis added).
[7] *Madden* at para 2 (emphasis added).
[8] See, *e.g.*, *Bell Telephone Co. v. Harwich (Township)*, 1945 CanLII 63 (ON CA).

exclusive jurisdiction to determine any disputes regarding "utility crossings", including for drainage, of federally-regulated railways. The Agency has the expertise to regulate such crossings safely. The provinces and municipalities do not.

28. As a result, the *Drainage Act* and the By-Law are constitutionally inapplicable to CPRC. As described above, the *Drainage Act* purports to, among other things, empower municipalities to require the construction of drainage works and entitle contractors to enter upon whatever lands are necessary to complete the construction of drainage works, including the lands of public utilities, without the utilities' consent.[9]

29. Here, the By-Law purports to authorize the construction of the Drainage Works underneath CPRC's Railway Lands — an operating rail corridor. The *Drainage Act* and the By-Law interfere with the physical structure of CPRC's federally-regulated railway and require the construction of new works along the railway. Neither the Province of Ontario nor the Municipality has this authority. Accordingly, the *Drainage Act* and the By-Law are inapplicable to CPRC under interjurisdictional immunity.

Alternatively, the Drainage Act and By-Law are inoperative under federal paramountcy

30. Under the doctrine of federal paramountcy, federal law prevails over provincial law to the extent of any conflict between them. Two types of conflict can trigger federal paramountcy: operational conflict and frustration of federal legislative purpose.

[9] In addition to being constitutionally inapplicable to CPRC, the reference to "railways however operated" in the definition of "public utility" in section 1 of the *Drainage Act* must be interpreted as applying only to provincial railways wholly situated within Ontario. Ontario does not have jurisdiction over interprovincial and international railways: *Constitution Act, 1867*, s 92(10)(a).

31. The *Drainage Act* and the By-Law operationally conflict with provisions of the federal *CTA* and *RSA* and frustrate the purpose of these laws. As a result, the *Drainage Act* and the By-Law are inoperative.

32. The *CTA* provides a comprehensive scheme for the construction of utility crossings, including drainage works, of federally-regulated railways. This scheme gives the Agency exclusive jurisdiction over any disputes regarding utility crossings or the apportionment of costs.

33. Section 95(1) of the *CTA* authorizes federally-regulated railways to construct drainage infrastructure in connection with the railway. The railway's powers in this regard are subject only to the *CTA* and other federal legislation. Federally-regulated railways may:

(a) "make or construct tunnels, embankments, aqueducts, bridges, roads, conduits, drains, piers, arches, cutting and fences across or along a railway";

(b) "make drains or conduits into, through or under land adjoining the railway for the purpose of conveying water from or to the railway";

(c) "divert or alter the position of a water pipe...across or along the railway"; and

(d) "do anything else necessary for the construction or operation of the railway".

34. In addition, sections 100 to 103 of the *CTA* govern crossings over or under federally-regulated railways, including "utility crossings" of "utility lines". A "utility line" is defined to include "a wire, cable, pipeline or other like means of enabling the transmission of goods or energy

or the provision of services" (s. 100). The Agency has interpreted "utility lines" to include drainage works.[10] The *CTA* provides that:

(a) A federally-regulated railway may enter into an agreement with another person regarding the construction, maintenance or apportionment of costs for a utility crossing, which may be filed with the Agency (ss. 101(1)(2));

(b) If the railway does not agree to the utility crossing, the Agency may, on application, "authorize the construction of a suitable…utility crossing or related work, or specify[] who shall maintain the crossing" (s. 101(3)); and

(c) If the railway does not agree to the apportionment of costs for constructing or maintaining the utility crossing, section 16 of the *RSA* applies to address the costs (s. 101(4)). Section 16 of the *RSA* in turn creates a process to refer the apportionment of costs for a railway work (including a utility crossing) to the Agency for determination.

35. The *Drainage Act* and the By-Law operationally conflict with the *CTA* and the *RSA*, including the provisions cited above. Operational conflict occurs if one law says "yes" and the other "no", making it impossible to comply with both. Under the *CTA* and the *RSA*, construction of a utility crossing of a federally-regulated railway and the apportionment of associated costs requires *either* the agreement of the affected railway *or* an order of the Agency. However, the *Drainage Act* and By-Law purport to authorize the construction of the Drainage Works across the Railway Lands and assess costs against CPRC with *neither* CPRC's agreement *nor* an order of the

[10] *Decision No. 113-R-2016* (April 13, 2016) at paras 51-53, Canadian Transportation Agency, online: https://otc-cta.gc.ca/eng/ruling/113-r-2016.

Agency. In other words, the *Drainage Act* and By-Law say "yes" to the construction of the Drainage Works and assessment of costs against CPRC, whereas the *CTA* and *RSA* say "no". This is a direct operational conflict.

36. The *CTA* and *RSA* do not allow municipalities to proceed unilaterally as set out in the *Drainage Act* and the By-Law. Rather, absent the railway's consent, the Agency has exclusive authority to decide whether the proposed utility crossing is suitable and to apportion costs. The *Drainage Act* directs those same disputes to be determined in other forums, including by the municipality in a by-law, or the drainage referee in a court proceeding, an operational conflict with the *CTA* and the *RSA*.

37. The *Drainage Act* and the By-Law also frustrate the federal legislative purpose of the *CTA* and *RSA*. The frustration of federal purpose doctrine provides that if the operation of a provincial law is incompatible with a federal legislative purpose, the provincial law is inoperative to the extent of the conflict.

38. The purpose of the *CTA* and *RSA* provisions relating to utility crossings is to authorize federally-regulated railways to allow the construction of utility crossings across the railway, and if there is a dispute regarding such construction or the apportionment of costs, to give the Agency exclusive authority to determine the dispute. The *CTA* and *RSA* apply across Canada, meaning that a federally-regulated railway is subject to the same legislative scheme governing utility crossings nationwide, which reduces inconsistencies and avoids subjecting railways to the regulatory patchwork that would ensue if each province adopted its own legislation.

39. The *Drainage Act* and the By-Law frustrate these purposes. The *Drainage Act* and the By-Law purport to authorize the construction of the Drainage Works across CPRC's rail corridor, and

apportion associated costs against CPRC, absent either CPRC's agreement or order of the Agency. The *Drainage Act* deprives the Agency of the exclusive authority given to it by the *CTA* and the *RSA*.

40. For these reasons, the *Drainage Act* and the By-Law are inoperative under the doctrine of federal paramountcy.

January 31, 2024

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Schedule "A"

SHAW BRANCH OF THE FACEY EAST DRAIN

Municipality of Chatham-Kent

Community of Zone

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Our Job No. 220060

February 19, 2021

London, Ontario
February 19, 2021

SHAW BRANCH OF THE FACEY EAST DRAIN

Municipality of Chatham-Kent

Community of Zone

To the Drainage Board of the
The Municipality of Chatham-Kent

Members of the Drainage Board:

We are pleased to present our report on the construction of the Shaw Branch of the Facey East Municipal Drain serving parts of Lots 3 & 4, Concession 3 (Community of Zone) in the Municipality of Chatham-Kent.

AUTHORIZATION

This report was prepared pursuant to Section 4 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The work was initiated by a petition signed by the owners whose lands contain over 60 percent of the area requiring drainage.

DRAINAGE AREA

The total watershed area as described above contains approximately 9.3 hectares. The area requiring drainage for the Shaw Branch is described as the lands located northwest adjacent to the CP Railway in Lot 4, Concession 3.

EXISTING DRAINAGE CONDITIONS

At a site meeting held with respect to the project and through later discussions, the owners reported the following:

- that the petitioning landowner, A. & D. Miller (Roll No. 1-093), requested a deeper outlet to allow for the systematic tiling of approximately 6.0 hectares of land, the landowner also indicated also that the lands were subject to frequent ponding along the south limit of his property.

- the Drainage Superintendent for the Municipality indicated that this would require a crossing under the CP Rail property and that the drain would be tributary to the Facey East Drain

- a subsequent site meeting was held with officials from CP Rail to discuss a potential crossing and they indicated that any borings under 300mm in diameter did not require a geotechnical report

EXISTING DRAINAGE CONDITIONS (cont'd)

A field investigation and survey were completed and, upon reviewing our findings, we note the following:

- that the lands within the area requiring drainage are currently serviced by a 900mm diameter surface culvert that does not contain sufficient outlet to allow for subsurface drainage

- that construction of a new crossing under C.P. Rail lines would necessitate maintenance work on the Facey East Drain downstream of the proposed work

Preliminary design, cost estimates and assessments were prepared, and provided to the owners to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time and at later dates. Based on the proposed design it was decided to proceed with the petition.

DESIGN CONSIDERATIONS

The proposed drain was designed, with respect to capacity, using the Drainage Coefficient method contained in the "DRAINAGE GUIDE FOR ONTARIO", Publication 29 by the Ontario Ministry of Agriculture, Food, and Rural Affairs. The Drainage Coefficient defines a depth of water that can be removed in a 24-hour period and is expressed in millimetres per 24 hours. The coefficient used for the Shaw Branch was 38mm.

We would like to point out that there have been indications of sandy soil conditions, but no formal soil investigation has been made.

All of the proposed work has been generally designed and shall be constructed in accordance with the DESIGN AND CONSTRUCTION GUIDELINES FOR WORK UNDER THE DRAINAGE ACT.

RECOMMENDATIONS

We are therefore recommending the following:

- that a new branch drain, to be known as the Shaw Branch, be constructed commencing at the East Branch of the Facey Drain and travel northwesterly under the CP Rail allowance to just within the limits of the lands of A. & D. Miller (Roll No. 1-093) for a total length of 43 lineal meters

- that the crossing under the railway be done by jack and bore to minimize disruption to rail traffic

- that a swale be constructed from the lands of A. & D. Miller (Roll No. 1-093) east to the existing 900mm diameter surface culvert to ensure that the lands receive adequate surface drainage

RECOMMENDATIONS (cont'd)

- that a catch basin be installed on the upstream end of the branch to alleviate surface ponding and provide a visible connection point to the drain

- that the Facey East Drain be cleaned out under maintenance to provide a sufficient outlet for the Shaw Branch

Due to the indications of poor soil conditions our design includes the use of sealed sewer pipe on a crushed stone bedding to minimize settlement and the incursion of soil particles.

In accordance with the principals of Section 14(2) of the Drainage Act, the existing surface waterway beside along the route of the tile drain shall be part of the drainage works for future maintenance. The width available for the waterway shall be equal to the maintenance working width as noted on the Contract Drawings.

ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

There are no significant wetlands or sensitive areas within the affected watershed area or along the route of the drains. The proposed construction of the Shaw Branch of the Facey East Drain includes quarry stone outlet protection, surface inlets, and waterway which greatly help reduce the overland surface flows and any subsequent erosion. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

SUMMARY OF PROPOSED WORK

The proposed work consists of approximately 10 lineal meters of open ditch construction including quarry stone rip-rap bank protection and bank seeding; approximately 33 lineal meters of 250mm (10") HDPE sewer pipe and steel pipe including related appurtenances.

SCHEDULES

Four schedules are attached hereto and form part of this report, being Schedule 'A' - Allowances, Schedule 'B' - Cost Estimate, Schedule 'C' - Assessment for Construction, and Schedule 'D' - Assessment for Maintenance.

Schedule 'A' - Allowances. In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided for right-of-way and damages to lands and crops along the route of the drain as defined below.

Schedule 'B' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of $ 36,500.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'C' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

SCHEDULES (cont'd)

Schedule 'D' - Assessment for Maintenance. In accordance with Section 38 of the Drainage Act, this schedule outlines the distribution of future repair and/or maintenance costs for portions of, or the entire drainage works.

Drawing No. 1, Job No. 220060, and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

ALLOWANCES

DAMAGES: Section 30 of the Drainage Act provides for the compensation to landowners along the drain for damages to lands and crops caused by the construction of the drain. The amount granted is based on $3,613.00/ha. for closed drain installed with wheel machine. This base rate is multiplied by the hectares derived from the working widths shown on the plans and the applicable lengths.

RIGHT-OF-WAY Section 29 of the Drainage Act provides for an allowance to the owners whose land must be used for the construction, repair, or future maintenance of a drainage works.

For tile drains where the owners will be able to continue to use the land, the allowance provides for the right to enter upon such lands, and at various times for the purpose of inspecting such drain, removing obstructions, and making repairs. Also, the allowance provides for the restrictions imposed on those lands to protect the right-of-way from obstruction or derogation. The amounts granted for right-of-way on tile drains is based on a percentage of the value of the land designated for future maintenance. Therefore, the amounts granted are based on $6,670.00/ha. This value is multiplied by the hectares derived from the width granted for future maintenance and the applicable lengths.

For open ditches, the allowance provides for the loss of land due to the construction provided for in the report. The amounts granted are based on the value of the land, and the rate used was $33,360.00/ha. When any buffer strip is incorporated and/or created, the allowance granted is for any land beyond a 1.8-meter width deemed to have always been part of the drain. For existing open ditches, the right-of-way to provide for the right to enter and restrictions imposed on those lands, is deemed to have already been granted.

ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These liabilities are known as benefit, outlet liability and special benefit as set out under Sections 22, 23, 24 and 26 of the Act.

BENEFIT as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

ASSESSMENT DEFINITIONS (cont'd)

OUTLET liability is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse.

In addition, a Public Utility or Road Authority shall be assessed for and pay all the increased cost to a drainage works due to the construction and operation of the Public Utility or Road Authority. This may be shown as either benefit or special assessment.

ASSESSMENT

A modified "Todgham Method" was used to calculate the assessments shown on Schedule 'C'- Assessment for Construction. This entailed breaking down the costs of the drain into sections along its route. Special Assessments were then extracted from each section.

The remainder is then separated into Benefit and Outlet costs. The Benefit cost is distributed to those properties receiving benefit as defined under "Assessment Definitions", with such properties usually being located along or close to the route of the drain. The Outlet Costs are distributed to all properties within the watershed area of that section on an adjusted basis. The areas are adjusted for location along that section, and relative run-off rates. Due to their different relative run-off rates, forested lands have been assessed for outlet at lower rates than cleared lands. Also, railways have been assessed for outlet at higher rates than cleared farmlands.

The actual cost of the work involving this report, with the exception of Special Assessments, is to be assessed on a pro-rata basis against the lands and roads liable for assessment for special benefit, benefit, and outlet as shown in detail below and on Schedule 'C' - Assessment for Construction. The Special Assessments shall be levied as noted in the Section "Special Assessment".

SPECIAL ASSESSMENT

In accordance with Section 26 of the Drainage Act, a Special Assessment has been made against CP Railway Inc. being the increased cost to the drainage work for boring a 250mm diameter smooth wall steel pipe across their right-of-way on the Shaw Branch due to the construction and operation of their rail line. The Special Assessment shall be made up of the actual cost of this work and both the final and estimated values of the Special Assessment are to be calculated as follows:

Drain	Cost of Work	Less Equivalent Drain Cost (Fixed)	Plus Administration Cost	Plus Interest & Net H.S.T.	Special Assessment
250mm pipe	$14,000.00	$1,280.00	$6,900.00	$490.00	$20,110.00

The above special assessments shall not apply for future maintenance purposes.

SPECIAL ASSESSMENT (cont'd)

If any additional work is required to the drainage works due to the existence of buried utilities such as gas pipelines, communications cables, etc. or if any of the utilities require relocation or repair, then, the extra costs incurred shall be borne by the utility involved in accordance with the provisions of Section 26 of the Drainage Act.

GRANTS

In accordance with the provisions of Section 85 of the Drainage Act, a grant **may** be available for assessments against privately owned parcels of land which are used for agricultural purposes and eligible for the Farm Property Class Tax rate. Section 88 of the Drainage Act directs the Municipality to make application for this grant upon certification of completion of this drain. The Municipality will then deduct the grant from the assessments prior to collecting the final assessments.

MAINTENANCE

Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain.

After completion, the Shaw Branch of the Facey East Drain shall be maintained by the Municipality of Chatham-Kent at the expense of all upstream lands and roads assessed in Schedule 'D' - Assessment for Maintenance and in the same relative proportions until such time as the assessment is changed under the Drainage Act.

Special Assessments shall **not** be pro-rated for future maintenance purposes.

Repairs or improvements to any railway culvert or sub-surface crossing required by the performance of this work and for future repair and/or replacement, shall be the responsibility of the applicable Railway Authority, entirely at their cost.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED

J.M. Spriet, P.Eng.

JMS:bv

SCHEDULE 'A' - ALLOWANCES

SHAW BRANCH OF THE FACEY EAST DRAIN

Municipality of Chatham - Kent
Community of Zone

In accordance with Sections 29 and 30 of the Drainage Act, we determine the allowances payable to owners entitled thereto as follows:

CONCESSION	LOT	ROLL NUMBER (Owner)	Section 29 Right-of-Way	Section 30 Damages	TOTALS
SHAW BRANCH					
3	Pt.3 & 4	1-092-01 (Huston Farms Inc.)	$ 140.00	$ 160.00	$ 300.00
3	Pt.3 & 4	1-093 (A. & D. Miller)	40.00	230.00	270.00
		Total Allowances	$ 180.00	$ 390.00	$ 570.00
		TOTAL ALLOWANCES ON THE SHAW BRANCH			**$ 570.00**
		TOTAL ALLOWANCES ON THE SHAW BRANCH OF THE FACEY EAST DRAIN			**$ 570.00**

SCHEDULE 'B' - COST ESTIMATE

SHAW BRANCH OF THE FACEY EAST DRAIN

Municipality of Chatham - Kent
Community of Zone

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

SHAW BRANCH

Clearing & Grubbing	$	500.00
10 meters of open ditch construction	$	1,000.00
Levelling of excavated material	$	300.00
Seeding of ditch banks and buffer strips (Approx 100m²)	$	100.00
Installation of the following H.D.P.E. pipe, including bedding and backfill		
17 meters of 200mm dia. HDPE pipe	$	1,700.00
Supply of the above listed pipe	$	500.00
16 meters of 250mm dia., 7.9mm thickness smooth wall steel pipe		
Supply	$	2,000.00
Installation under CP Railway by boring	$	12,000.00
Supply and install 600mm X 600mm ditch inlet catchbasins including grate, ditching	$	2,000.00
Supply and installation of quarry stone rip-rap at outlet and overflow swale (Approx 12 cu.m)	$	1,500.00
Tile connections and contingencies	$	1,000.00
Allowances under Sections 29 & 30 of the Drainage Act	$	570.00

ADMINISTRATION

Interest and Net Harmonized Sales Tax	$	880.00
Survey, Plan and Final Report	$	7,900.00
Expenses	$	780.00
Supervision and Final Inspection	$	3,770.00
TOTAL ESTIMATED COST	**$**	**36,500.00**

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

SHAW BRANCH OF THE FACEY EAST DRAIN

Municipality of Chatham - Kent

Community of Zone

Job No. 220060

February 19, 2021

* = *Non-agricultural*

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
SHAW BRANCH						
3	Pt.3 & 4		1-092-01 (Huston Farms Inc.)	$ 300.00	$	$ 300.00
3	Pt.3 & 4	9.30	1-093 (A. & D. Miller)	2,870.00	4,731.00	7,601.00
R.O.W.		1.00	3-264 (Canadian Pacific Railway)	5,860.00	2,629.00	8,489.00
			TOTAL ASSESSMENT ON LANDS	$ 9,030.00	$ 7,360.00	$ 16,390.00

SPECIAL ASSESSMENT against the Canadian Pacific Railway for the increased cost of a 16m - 250mm dia. Smooth wall steel pipe under their Railway $ 20,110.00

TOTAL ASSESSMENT ON THE SHAW BRANCH **$ 36,500.00**

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

SHAW BRANCH OF THE FACEY EAST DRAIN

Municipality of Chatham - Kent

Community of Zone

Job No. 220060

February 19, 2021

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
SHAW BRANCH				
3	Pt.3 & 4		1-092-01 (Huston Farms Inc.)	1.3 %
3	Pt.3 & 4	9.3	1-093 (A. & D. Miller)	51.9
R.O.W.		1.0	3-264 (Canadian Pacific Railway)	46.8
				=======
			TOTAL ASSESSMENT ON LANDS	100.0 %
				=======
			TOTAL ASSESSMENT FOR MAINTENANCE OF THE SHAW BRANCH	**100.0 %**

SCHEDULE OF NET ASSESSMENT

SHAW BRANCH OF THE FACEY EAST DRAIN

Municipality of Chatham - Kent

(FOR INFORMATION PURPOSES ONLY)

Job No. 220060

February 19, 2021

** = Non-agricultural*

	ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
	1-092-01 (Huston Farms Inc.)	$ 300.00	$ 100.00	$ 300.00	$ -100.00
	1-093 (A. & D. Miller)	7,601.00	2,534.00	270.00	4,797.00
*	3-264 (Canadian Pacific Railway)	8,489.00			8,489.00
	Special Assessment	20,110.00			20,110.00
TOTALS		**$ 36,500.00**	**$ 2,634.00**	**$ 570.00**	**$ 33,296.00**

SPECIFICATIONS FOR CONSTRUCTION
OF
MUNICIPAL DRAINAGE WORKS

G E N E R A L I N D E X

SECTION A	General Work	Pages 1 to 6
SECTION B	Open Drain	Pages 7 to 9
SECTION C	Tile Drain	Pages 10 to 15
STANDARD DETAILED DRAWINGS		SDD-01 to SDD-05

SECTION A - GENERAL WORK

I N D E X

SECTION NUMBER		PAGE NO.
A.1	COMMENCEMENT AND COMPLETION OF WORK.....	1
A.2	WORKING AREA AND ACCESS.....	1
A.3	ROAD CROSSINGS.....	1
A.4	SURPLUS EXCAVATED MATERIAL AND GRAVEL.....	3
A.5	FENCES.....	3
A.6	LIVESTOCK.....	4
A.7	STANDING CROPS.....	4
A.8	RAILWAYS, HIGHWAYS, UTILITIES.....	4
A.9	LOCATION OF UTILITIES.....	4
A.10	IRON BARS.....	4
A.11	STAKES.....	4
A.12	RIP-RAP.....	5
A.13	GABION BASKETS.....	5
A.14	RESTORATION OF LAWNS.....	5
A.15	RESTORATION OF ROADS AND LANEWAYS.....	6

SECTION A

GENERAL WORK

A.1 COMMENCEMENT AND COMPLETION OF WORK

The work must commence immediately after the Contractor is notified of the acceptance of his tender or at a later date, if set out as a condition of the tender. If weather creates poor ground or working conditions the Contractor may be required, at the discretion of the Engineer, to postpone or halt work until conditions become acceptable.

As noted on the drawn, the contractor must first arrange for a preconstruction meeting to be held on the site with the Contractor and affected owners attending to review in detail the construction scheduling, access and other pertinent details. The Contractor's costs for attending this meeting shall be included in his lump sum tender price. If the Contractor leaves the job site for a period of time after initiation of work, he shall give the Engineer and the Superintendent a minimum of twenty-four (24) hours' notice prior to returning to the project.

The work must be proceeded with in such a manner as to ensure its completion at the earliest possible date and within the time limit set out in the tender or in the contract documents.

A.2 WORKING AREA AND ACCESS

The working area available to the Contractor to construct the drain and related works including an access route to the drain shall be as specified on the drawings.

Should the specified widths become inadequate due to unusual conditions, the Contractor shall notify the Engineer immediately in order that negotiations with the affected owners can take place.

Where a Contractor exceeds the specified widths due to the nature of his operations and without authorization, he shall be held responsible for the costs of all additional damages and the amount shall be deducted from his contract price and paid to the affected owners by the Municipality.

A.3 ROAD CROSSINGS

.1 General

.1 Scope: These specifications apply to all road crossings - Municipal, County, Regional, or Highway Roads. Where the word "Authority" is used, it shall be deemed to apply to the appropriate owning authority. These specifications in no way limit the Authority's Specifications and Regulations governing the construction of drains on their Road Allowance. The Authority will supply no labour, equipment or materials for the construction of the road crossing unless otherwise noted on the drawings.

.2 Road Occupancy Permit: Where applicable the Contractor must submit an Application for a Road Occupancy Permit to the Authority and allow a minimum of 5 working days (exclusive of holidays) for its review and issuance.

.3 Road Closure Request and Construction Notification: The Contractor shall submit written notification of construction and request for road closure (if applicable) to the Road Authority/Public Works Manager and the Drainage Engineer or Superintendent for review and approval a minimum of five (5) working days (exclusive of holidays) prior to proceeding with any work on road allowance. It shall be the Road Authority's responsibility to notify all the applicable emergency services, schools, etc. of the road closure or construction taking place.

.4 Traffic Control: Where the Contractor is permitted to close the road to through traffic, the Contractor shall provide for and adequately sign the detour route to the satisfaction of the Road Authority. Otherwise, the Contractor shall keep the road open to traffic at all times. The Contractor shall provide, for the supply, erection and maintenance, suitable warning signs and/or flagmen in accordance with the Manual of Uniform Traffic Control Devices and to the satisfaction of the Road Authority to notify the motorists of work on the road ahead.

A.3 **ROAD CROSSINGS** (cont'd)

.5 Site Meeting/Inspection: A site meeting shall be held with the affected parties to review in detail the crossing and/or its related works. The Authority's Inspector and/or the Drainage Engineer will inspect the work while in progress to ensure that the work is done in strict accordance with the specifications.

.6 Weather: No construction shall take place during inclement weather or periods of poor visibility.

.7 Equipment: No construction material and/or equipment is to be left within 3 meters of the edge of pavement overnight or during periods of inclement weather.

.2 **Jacking and Boring**

.1 Material: The bore pipe shall consist of new, smooth wall steel pipe, meeting the requirements of H20 loading for road crossings and E80 loading for railway crossings. The minimum size, wall thickness and length shall be as shown on the drawings. Where welding is required, the entire circumference of any joint shall be welded using currently accepted welding practices.

.2 Site Preparation and Excavation: Where necessary, fences shall be carefully taken down as specified in the General Conditions. Prior to any excavation taking place, all areas which will be disturbed shall be stripped of topsoil. The topsoil is to be stockpiled in locations away from the bore operation, off the line of future tile placement and out of existing water runs or ditches. The bore pit shall be located at the upstream end of the bore unless otherwise specified or approved. Bore pits shall be kept back at least 1 meter from the edge of pavement and where bore pits are made in any portion of the shoulder, the excavated material shall be disposed of off the road allowance and the pit backfilled with thoroughly compacted Granular "A" for its entire depth.

.3 Installation: The pipe shall be installed in specified line and grade by a combination of jacking and boring. Upon completion of the operations, both ends of the bore pipe shall be left uncovered until the elevation has been confirmed by the Engineer or Superintendent. The ends of the bore pipe shall be securely blocked off and the location marked by means of a stake extending from the pipe invert to 300mm above the surrounding ground surface.

.4 Unstable Soil or Rock: The Contractor shall contact the Engineer immediately should unstable soil be encountered or if boulders of sufficient size and number to warrant concern are encountered. Any bore pipe partially installed shall be left in place until alternative methods or techniques are determined by the Engineer after consultation with the Contractor, the Superintendent and the owning authority.

.5 Tile Connections: Prior to commencement of backfilling, all tile encountered in excavations shall be reconnected using material of a size comparable to the existing material. Where the excavation is below the tile grade, a compacted granular base is to be placed prior to laying the tile. Payment for each connection will be made at the rate outlined in the Form of Tender and Agreement.

.6 Backfill: Unless otherwise specified, the area below the proposed grade shall be backfilled with a crushed stone bedding. Bore pits and excavations outside of the shoulder area may be backfilled with native material compacted to a density of 95% Standard Proctor. All disturbed areas shall be neatly shaped, have the topsoil replaced and hand seeded. Surplus material from the boring operation shall be removed from the site at the Contractor's expense.

.7 Restoration: The entire affected area shall be shaped and graded to original lines and grades, the topsoil replaced, and the area seeded down at the rate of 85 kg/per ha. unless otherwise specified or in accordance with the M.T.O. Encroachment Permit. Fences shall be restored to their original condition in accordance with the General Conditions.

.8 Acceptance: All work undertaken by the Contractor shall be to the satisfaction of the Engineer.

A.3 **ROAD CROSSINGS** (cont'd)

.3 **Open Cut**

.1 Material: The culvert or sub-drain crossing pipe material shall be specified on the drawings.

.2 Site Preparation and Excavation: Where necessary, fences shall be carefully taken down as specified in the general conditions. Prior to any excavation taking place, the areas which will be disturbed shall be stripped of topsoil. The topsoil is to be stockpiled in locations away from the construction area.

.3 Installation: The pipe shall be installed using bedding and cover material in accordance with Standard Detailed Drawing No. 2 or detail provided on drawings.

.4 Unstable Soil or Rock: The Contractor shall contact the Engineer immediately should unstable soil be encountered or if boulders of sufficient size and number to warrant concern are encountered.

.5 Tile Connections: Prior to commencement of backfilling, all tiles encountered in excavations shall be reconnected using material of a size comparable to the existing material. Where the excavation is below the tile grade, a compacted granular base is to be placed prior to laying the tile. Payment for connections not shown on the drawings shall be an extra to the contract.

.6 Backfill: Backfill from the top of the cover material up to the underside of road base shall meet the requirements for M.T.O. Granular "B". The backfill shall be placed in lifts not exceeding 300mm in thickness and each lift shall be thoroughly compacted to produce a density of 98% Standard Proctor. Granular "B" road base for County Roads and Highways shall be placed to a 450mm thickness and Granular "A" shall be placed to a thickness of 200mm, both meeting M.T.O. requirements. Granular road base materials shall be thoroughly compacted to produce a density of 100% Standard Proctor.

Where the road surface is paved, the Contractor shall be responsible for placing an HL-4 Hot Mix Asphalt patch of the same thickness as the existing pavement. The asphalt patch shall be flush with the existing roadway on each side and not overlap. If specified, the asphalt patch shall not be placed immediately over the road base and the Granular "A" shall be brought up flush with the existing asphalt and a liberal amount of calcium chloride shall be spread on the gravel surface. The asphalt patch must be completed within the time period set out on the drawing.

The excavated material from the trench beyond a point 2.5 meters from the travelled portion or beyond the outside edge of the gravel shoulder, may be used as backfill in the trench in the case of covered drains. This material should be compacted in layers not exceeding 600mm.

A.4 **SURPLUS EXCAVATED MATERIAL AND GRAVEL**

Excess excavated material from open cut installation through roads, railways, laneways and lawn/grass areas, shall be removed and disposed of off-site by the Contractor as part of their lump sum installation price. If as a result of any work, gravel or crushed stone is required and not all the gravel or crushed stone is used in the construction of the works, the Contractor shall haul away such surplus gravel or stone unless otherwise approved.

A.5 **FENCES**

No earth shall be placed against fences and all fences removed by the Contractor are to be replaced by him in as good condition as found. In general, the Contractor will not be allowed to cut existing fences but shall disconnect existing fences at the nearest anchor post or other such fixed joint and shall carefully roll it back out of the way. Where the distance to the closest anchor post or fixed joint exceeds 50 meters, the Contractor will be allowed to cut and splice in accordance with accepted methods and to the satisfaction of the owner and the Engineer or Superintendent. Where existing fences are deteriorated to the extent that existing materials are not salvageable for replacement, the Contractor shall notify the Engineer or the Superintendent prior to dismantling. Fences damaged beyond salvaging by the Contractor's negligence shall be replaced with new materials, similar to those existing, at the Contractor's expense. The replacement of the fences shall be done to the satisfaction of the owner and the Engineer or Superintendent. The site examination should indicate to the Contractor such work, if any, and an allowance should be made in the tendered price.

The Contractor shall not leave any fence open when he is not at work in the immediate vicinity.

A.6 LIVESTOCK

The Contractor shall provide each property owner with 48 hours' notice prior to removing any fences along fields which could possibly contain livestock. Thereafter, the property owner shall be responsible to keep all livestock clear of the construction areas until further notified. Where necessary, the Contractor will be directed to erect temporary fences. The Contractor shall be held responsible for loss or injury to livestock or damage caused by livestock, where the injury or damage is caused by his failure to notify the property owner or through negligence or carelessness on the part of the Contractor.

The Contractor constructing a tile drain shall not be held responsible for damages or injury to livestock occasioned by leaving trenches open for inspection by the Engineer if he notifies the owner at least 48 hours prior to commencement of the work on that portion. The Contractor will be held liable for such damages or injury if the backfilling of such trenches is delayed more than 1 day after acceptance by the Engineer.

A.7 STANDING CROPS

The Contractor shall not be held responsible for damages to standing crops within the working area available and the access route provided if he notifies the owner thereof at least 48 hours prior to commencement of the work on that portion.

A.8 RAILWAYS, HIGHWAYS, UTILITIES

A minimum of forty-eight (48) hours' notice to Railways, Highways and Utilities, exclusive of Saturdays, Sundays and Holidays, shall be required by the Contractor prior to any work being performed and in the case of a pipe being installed by open cutting or boring under a Highway or Railway, a minimum of 72 hours' notice is required.

A.9 UTILITIES

The attention of the Contractor is drawn to the presence of utilities along the course of the drain. The Contractor will be responsible for determining the location of all utilities and will be held liable for any damage to all utilities caused by his operations. The Contractor shall co-operate with all authorities to ensure that all utilities are protected from damage during the performance of the work. The cost of any necessary relocation work shall be borne by the utility. No allowance or claims of any nature will be allowed on account for delays or inconveniences due to utilities relocation, or for inconveniences and delays caused by working around or with existing utilities not relocated.

A.10 IRON BARS

The Contractor shall be held liable for the cost of an Ontario Land Surveyor to replace any iron bars destroyed during the course of construction.

A.11 STAKES

At the time of the survey, stakes are set along the course of the drain at intervals of 50 meters. The Contractor shall ensure that the stakes are not disturbed unless approval is obtained from the Engineer. Any stakes removed by the Contractor without the authority of the Engineer, shall be replaced at the expense of the Contractor. At the request of the Contractor, any stakes which are removed or disturbed by others or by livestock, shall be replaced at the expense of the drain.

A.12 **RIP-RAP**

Rip-rap shall be specified on the drawings and shall conform to the following:

.1 **Quarry Stone**: shall range in size from 150mm to 300mm evenly distributed and shall be placed to a 300mm thickness on a filter blanket at a 1.5 to 1 slope unless otherwise noted. Filter blanket to be Mirafi 160N or approved equal.

.2 **Broken Concrete**: may be used in areas outside of regular flows if first broken in maximum 450mm sized pieces and mixed to blend with quarry stone as above. No exposed reinforcing steel shall be permitted.

.3 **Shot Rock**: shall range in size from 150mm to 600mm placed to a depth of 450mm thickness on a filter blanket at a 1.5:1 slope unless otherwise noted. Filter blanket to be Mirafi 160N or approved equal.

A.13 **GABION BASKETS**

Supply and install gabion basket rip-rap protection as shown on the drawings.
Gabion baskets shall be as manufactured by Maccaferri Gabions of Canada Ltd. or approved equal and shall be assembled and installed in strict accordance with the manufacturer's recommendations.
The gabion fill material shall consist solely of fractured field stone or gabion stone graded in size from 100mm to 200mm (4" to 8") and shall be free of undersized fragments and unsuitable material.

A.14 **RESTORATION OF LAWNS**

.1 **General**: Areas noted on the drawings to be restored with seeding or sodding shall conform to this specification, and the Contractor shall allow for all costs in his lump sum bid for the following works.

.2 **Topsoil**: Prior to excavation, the working area shall be stripped of existing topsoil. The topsoil stockpile shall be located so as to prevent contamination with material excavated from the trench. Upon completion of backfilling operations, topsoil shall be spread over the working area to a depth equal to that which previously existed but not less than the following:

- Seeding and sodding - minimum depth of 100mm
- Gardens - minimum depth of 300mm

In all cases where a shortfall of topsoil occurs, whether due to lack of sufficient original depth or rejection of stockpiled material due to Contractor's operations, imported topsoil from acceptable sources shall be imported at the Contractor's expense to provide the specified depths. Topsoil shall be uniformly spread, graded, and cultivated prior to seeding or sodding. All clods or lumps shall be pulverized, and any roots or foreign matter shall be raked up and removed as directed.

.3 **Sodding**

.1 **Materials**: Nursery sod to be supplied by the Contractor shall meet the current requirements of the Ontario Sod Growers Association for No. 1 Bluegrass Fescue Sod.
.2 **Fertilizer**: Prior to sod placement, approved fertilizer shall be spread at the rate of 5kg/100m² of surface area and shall be incorporated into such surfaces by raking, discing or harrowing. All surfaces on which sod is to be placed shall be loose at the time of placing sod to a depth of 25mm.
.3 **Placing Sod**: Sod shall be laid lengthwise across the face of slopes with ends close together. Sod shall be counter sunk along the joints between the existing grade and the new sodding to allow for the free flow of water across the joint. Joints in adjacent rows shall be staggered and all joints shall be pounded and rolled to a uniform surface.

On slopes steeper than 3 to1, and in unstable areas, the Engineer may direct the Contractor to stake sod and/or provide an approved mesh to prevent slippages. In all cases where such additional work is required, it will be deemed an extra to the contract and shall be paid for in accordance with the General Conditions. No sod shall be laid when frozen nor upon frozen ground nor under any other condition not favourable to the growth of the sod. Upon completion of sod laying the Contractor shall thoroughly soak the area with water to a depth of 50mm. Thereafter it will be the responsibility of the property owner to maintain the area in a manner so as to promote growth.

A.14 **RESTORATION OF LAWNS (cont'd)**

.4 **Seeding**: Seed to be supplied by the Contractor shall be "high quality grass seed" harvested during the previous year, and shall be supplied to the project in the supplier's original bags on which a tag setting out the following information is affixed:

- Year or Harvest - recommended rate of application
- Type of Mixture - fertilizer requirements

Placement of seed shall be by means of an approved mechanical spreader. All areas on which seed is to be placed shall be loose at the time of placing seed, to a depth of 25mm. Seed and fertilizer shall be spread in accordance with the supplier's recommendations unless otherwise directed by the Engineer. Thereafter it will be the responsibility of the property owner to maintain the area in a manner so as to promote growth.

.5 **Settlement**: The Contractor shall be responsible during the one-year guarantee period for the necessary repair of restored areas due to trench settlement. Areas where settlement does not exceed 50mm may be repaired by top dressing with fine topsoil. In areas where settlement exceeds 50mm, the Contractor will be required to backfill the area with topsoil and restore with seeding and/or sodding as originally specified.

A.15 **RESTORATION OF ROADS AND LANEWAYS**

.1 **Gravel**: Restoration shall be in accordance with the applicable standard detailed drawing or as shown on the drawings.

.2 **Asphalt and Tar and Chip**: Prior to restoration all joints shall be neatly sawcut. Restoration shall be as a in gravel above with the addition of the following:

.1 Roads shall have the finished grade of Granular 'A', allow two courses of hot-mix asphalt (M.T.O. 310), 80mm HL6 and 40mm HL3 or to such greater thickness as may be required to match the existing.

.2 Laneways shall have the finished grade of Granular 'A' allow one 50mm minimum course of hot-mix asphalt (HL3) or greater as may be required to match existing.

SECTION B - OPEN DRAIN

I N D E X

SECTION NUMBER		PAGE NO.
B.1	PROFILE	7
B.2	ALIGNMENT	7
B.3	CLEARING AND GRUBBING	7
B.4	EXCAVATION	7
B.5	EXCAVATED MATERIAL	7
B.6	EXCAVATION THROUGH BRIDGES AND CULVERTS	8
B.7	PIPE CULVERT	8
B.8	MOVING DRAINS OFF ROADS	8
B.9	TRIBUTARY OUTLETS	8
B.10	SEDIMENT BASINS AND TRAPS	9
B.11	SEEDING	9

SECTION B

OPEN DRAIN

B.1 PROFILE

The profile drawing shows the depth of cuts from the ground beside the stake to the final invert of the ditch in meters and decimals of a meter and also the approximate depth of cuts from the existing bottom of the ditch to the elevation of the ditch bottom. These cuts are established for the convenience of the Contractor; however, benchmarks will govern the final elevation of the drain. Benchmarks have been established along the course of the drain and their locations and elevations are noted on the profile drawing. A uniform grade shall be maintained between stakes in accordance with the profile drawing.

B.2 ALIGNMENT

The drain shall be constructed in a straight line and shall follow the course of the present drain or water run unless otherwise noted on the drawings. Where it is necessary to straighten any bends or irregularities in alignment not noted on the drawings, the Contractor shall contact the Engineer or Superintendent before commencing the work.

B.3 CLEARING AND GRUBBING

Prior to commencement of work, all trees, scrub, fallen timber and debris shall be removed from the side slopes of the ditch and for such a distance on the working side so as to eliminate any interference with the construction of the drain or the spreading of the spoil. The side slopes shall be neatly cut and cleared flush with slope whether or not they are affected directly by the excavation. With the exception of large stumps causing damage to the drain, the side slope shall not be grubbed. All other cleared areas shall be grubbed and the stumps put into piles for disposal by the owner.

All trees or limbs 150mm (6") or larger, that it is necessary to remove, shall be considered as logs and shall be cut and trimmed, and left in the working width separate from the brush, for use or disposal by the owner. Trees or limbs less than 150mm in diameter shall be cut in lengths not greater than 5 meters and placed in separate piles with stumps spaced not less than 75 meters apart in the working width, for the use or disposal of the owner. In all cases, these piles shall be placed clear of excavated materials, and not be piled against standing trees. No windrowing will be permitted. The clearing and grubbing and construction of the drain are to be carried out in two separate operations and not simultaneously at the same location.

B.4 EXCAVATION

The bottom width and the side slopes of the ditch shall be those shown on the profile drawing.

Unless otherwise specified on the drawings, only the existing ditch bottom is to be cleaned out and the side slopes are not to be disturbed. Where existing side slopes become unstable because of construction, the Contractor shall immediately contact the Engineer or Superintendent. Alternative methods of construction and/or methods of protection will then be determined, prior to continuing the work.

Where an existing drain is being relocated or where a new drain is being constructed, the Contractor shall, unless otherwise specified, strip the topsoil for the full width of the drain, including the location of the spoil pile. Upon completion of levelling, the topsoil shall be spread to an even depth across the full width of the spoil.

B.5 EXCAVATED MATERIAL

Excavated material shall be deposited on either or both sides of the drain as indicated on the drawings or as directed by the Engineer or Superintendent. A buffer strip of not less than 3 meters in width through farmed lands and 2 meters in width through bush areas shall be left along the top edges of the drain. The buffer strip shall be seeded and/or incorporated as specified on the drawings. The material shall be deposited beyond the specified buffer strip.

B.5 **EXCAVATED MATERIAL** (cont'd)

No excavated material shall be placed in tributary drains, depressions, or low areas which direct water into the ditch so that water will be trapped behind the spoil bank. The excavated material shall be placed and levelled to a minimum width to depth ratio of 50 to 1 unless instructed otherwise. The edge of the spoil bank away from the ditch shall be feathered down to the existing ground; the edge of the spoil bank nearest the ditch shall have a maximum slope of 2 to 1. The material shall be levelled such that it may be cultivated with ordinary farm equipment without causing undue hardship on machinery and personnel. No excavated material shall cover any logs, scrub, debris, etc. of any kind.

Where it is necessary to straighten any unnecessary bends or irregularities in the alignment of the ditch, the excavated material from the new cut shall be used for backfilling the original ditch. Regardless of the distance between the new ditch and the old ditch no extra compensation will be allowed for this work and must be included in the Contractor's lump sum price for the open work.

Any stones 150mm or larger left exposed on top of the levelled excavated material shall be removed and disposed of as an extra to the contract unless otherwise noted on plans.

B.6 **EXCAVATION THROUGH BRIDGES AND CULVERTS**

The Contractor shall excavate the drain to the full specified depth and width under all bridges. Where the bridge or culvert pipe is located within a road allowance, the excavated material shall be levelled within the road allowance. Care shall be taken not to adversely affect existing drainage patterns. Temporary bridges may be carefully removed and left on the bank of the drain but shall be replaced by the Contractor when the excavation is completed unless otherwise specified. Permanent bridges must be left intact. All necessary care and precautions shall be taken to protect the structure. The Contractor shall notify the Engineer or Superintendent if excavation may cause the structure to undermine or collapse.

B.7 **PIPE CULVERTS**

Where specified on the drawings, the existing culvert shall be carefully removed, salvaged and either left at the site for the owner or reinstalled at a new grade or location. The value of any damage caused to the culvert due to the Contractor's negligence in salvage operation will be determined and deducted from the contract price.

All pipe culverts shall be installed in accordance with the standard detail drawings as noted on the drawings. If couplers are required, 5 corrugation couplers shall be used for up to and including 1200mm dia. pipe and 10 corrugation couplers for greater than 1200mm dia.

B.8 **MOVING DRAINS OFF ROADS**

Where an open drain is being removed from a road allowance, it must be reconstructed wholly on the adjacent lands with a minimum distance of 2.0 meters between the property line and the top of the bank, unless otherwise noted on the drawings. The excavated material shall be used to fill the existing open ditch and any excess excavated material shall be placed and levelled on the adjacent lands beyond the buffer strip, unless otherwise noted. Any work done on the road allowance, with respect to excavation, disposal of materials, installation of culverts, cleaning under bridges, etc., shall be to the satisfaction of the Road Authority and the Engineer.

B.9 **TRIBUTARY OUTLETS**

The Contractor shall guard against damaging the outlets of tributary drains. Prior to commencement of excavation on each property the Contractor shall contact the owner and request that all known outlet pipes be marked by the owner. All outlets so marked or visible or as noted on the profile, and subsequently damaged by the Contractor's operations will be repaired by the Contractor at his cost. All outlet pipes repaired by the Contractor under direction of the Drainage Superintendent or Engineer which were not part of the Contract shall be considered an extra to the contract price.

B.10 SEDIMENT BASINS AND TRAPS

The Contractor shall excavate sediment basins prior to commencement of upstream work as shown on the plan and profile. The dimension of the basin will be in a parabolic shape with a depth of 450mm below the proposed ditch bottom and the basin will extend along the drain for a minimum length of 15 meters.

A sediment trap 300mm deep and 5 meters long with silt fence placed across ditch bottom on the downstream end of the trap shall be constructed prior to and maintained during construction, to prevent silt from flushing downstream. The silt fence shall be removed and disposed of after construction.

B.11 SEEDING

.1 **Delivery**: The materials shall be delivered to the site in the original unopened containers which shall bear the vendor's guarantee of analysis and seed will have a tag showing the year of harvest.

.2 **Hydro Seeding**: Areas specified on drawings shall be hydro seeded and mulched upon completion of construction in accordance with O.P.S.S. 572 and with the following application rates:

Primary Seed (85 kg/ha.):	50% Creeping Red Fescue 40% Perennial Ryegrass 5% White Clover
Nurse Crop	Italian (Annual) Ryegrass at 25% of Total Weight
Fertilizer (300 kg/ha.)	8-32-16
Hydraulic Mulch (2000 kg/ha.)	Type "B"
Water (52,700 litres/ha.)	

Seeding shall not be completed after September 30.

.3 **Hand Seeding**: Hand seeding shall be completed daily with the seed mixture and fertilizer and application rate shown under "Hydro Seeding" above. Placement of the seed shall be by means of an approved mechanical spreader. Seeding shall not be completed after September 30.

SECTION C - TILE DRAIN

I N D E X

SECTION NUMBER		PAGE NO.
C.1	PIPE MATERIALS	10
C.2	TESTING	10
C.3	LINE	10
C.4	CLEARING AND GRUBBING	11
C.5	PROFILE	11
C.6	GRADE	11
C.7	EXCAVATION	11
C.8	INSTALLATION	12
C.9	ROAD AND LANEWAY SUB-SURFACE CROSSINGS	12
C.10	BACKFILLING	13
C.11	UNSTABLE SOIL	13
C.12	ROCKS	13
C.13	BROKEN, DAMAGED, OR EXCESS TILE	13
C.14	TRIBUTARY DRAINS	13
C.15	OUTLET PIPES	14
C.16	CATCHBASINS AND JUNCTION BOXES	14
C.17	BLIND INLETS	15
C.18	GRASSED WATERWAY	15
C.19	BACKFILLING EXISTING DITCHES	15
C.20	RECOMMENDED PRACTICE FOR CONSTRUCTION OF SUBSURFACE DRAINAGE SYSTEM	15

SECTION C

TILE DRAIN

C.1 PIPE MATERIALS

.1 **Concrete Tile**: All tile installed under these specifications shall be sound and of first quality and shall meet all A.S.T.M. Specifications current at the time of tendering. Concrete tile shall conform to Designation C412 "Extra Quality" except that the minimum compression strengths shall be increased by 25%. Heavy Duty tile shall conform to Designation C412 "Heavy Duty Extra Quality".

.2 **Corrugated Steel Pipe**: Unless otherwise specified, all metal pipe shall be corrugated, riveted steel pipe or helical corrugated steel pipe with a minimum wall thickness of 1.6mm (16 gauge) and shall be fully galvanized.

.3 **Plastic Tubing**: The plans will specify the type of tubing or pipe, such as non-perforated or perforated (with or without filter material).

i) Corrugated Plastic Drainage Tubing shall conform to the current O.F.D.A. Standards

ii) Heavy Duty Corrugated Plastic Pipe shall be "Boss 1000" manufactured by the Big 'O' Drain Tile Co. Ltd. or approved equal

.4 **Concrete Sewer Pipe**: The Designations for concrete sewer pipe shall be C14 for concrete sewer pipe 450mm (18") diameter or less; and C76 for concrete sewer pipe greater than 450mm (18") diameter. Where closed joints are specified, joints shall conform to the A.S.T.M. Specification C443.

Where concrete sewer pipe “seconds” are permitted the pipe should exhibit no damages or cracks on the barrel section and shall be capable of satisfying the crushing strength requirements for No.1, Pipe Specifications (C14 or C76). The pipe may contain cracks or chips in the bell or spigot which could be serious enough to prevent the use of rubber gaskets, but which are not so severe that the joint could not be mortared conventionally.

.5 **Plastic Sewer Pipe**: The plans will specify the type of sewer pipe, such as non-perforated or perforated (with or without filter material). All plastic sewer pipe and fittings shall be “Boss Poly-Tite”, ULTRA-RIB”, “Challenger 3000" or approved equal with a minimum stiffness of 320 kpa at 5% deflection.

.6 **Plastic Fittings**: All plastic fittings shall be "Boss 2000" or "Challenger 2000" with split coupler joints or approved equal.

C.2 TESTING

The manufacturer shall provide specimens for testing if required. The random selection and testing procedures would follow the appropriate A.S.T.M. requirements for the material being supplied. The only variation is the number of tiles tested: 200mm to 525mm dia. - 5 tile tested, 600mm to 900mm dia. - 3 tile tested. The drain will be responsible for all testing costs for successful test results. Where specimens fail to meet the minimum test requirements, the manufacturer will be responsible for the costs of the unsuccessful tests. Alternately, the Engineer may accept materials on the basis of visual inspections and the receipt in writing from the Manufacturer of the results of daily production testing carried out by the Manufacturer for the types and sizes of the material being supplied.

C.3 LINE

Prior to stringing the tile, the Contractor shall contact the Superintendent or the Engineer in order to establish the course of the drain.

Where an existing drain is to be removed and replaced in the same trench by the new drain or where the new drain is to be installed parallel to an existing drain, the Contractor shall excavate test holes to locate the existing drain (including repairing drainage tile) at intervals along the course of the drain as directed by the Engineer and/or the Superintendent. The costs for this work shall be included in the tender price.

Where an existing drain is to be removed and replaced in the same trench by the new drain, all existing tiles shall be destroyed, and all broken tile shall be disposed of offsite.

C.3 **LINE** (cont'd)

The drain shall run in as straight a line as possible throughout its length, except that at intersections of other water courses or at sharp corners, it shall run on a curve of at least a 15-meter radius. The new tile drain shall be constructed at an offset from and generally parallel with any ditch or defined watercourse in order that fresh backfill in the trench will not be eroded by the flow of surface water. The Contractor shall exercise care not to disturb any existing tile drain or drains which parallel the course of the new drain, particularly where the new and the existing tile act together to provide the necessary capacity.

C.4 **CLEARING AND GRUBBING**

Prior to commencement of drain construction, all trees, scrub, fallen timber and debris shall be cleared and grubbed from the working area. Unless otherwise specified, the minimum width to be cleared and grubbed shall be 20 meters in all hardwood areas and 30 meters in all softwood areas (willow, poplar, etc.), the width being centred on the line of the drain.

All trees or limbs 150mm (6") or larger, that it is necessary to remove, shall be considered as logs and shall be cut and trimmed, and left in the working width separate from the brush, for use or disposal by the owner. Trees or limbs less than 150mm in diameter shall be cut in lengths not greater than 5 meters and placed in separate piles with stumps spaced not less than 75 meters apart in the working width, for the use or disposal of the owner. In all cases, these piles shall be placed clear of excavated materials, and not be piled against standing trees. No windrowing will be permitted. The clearing and grubbing and construction of the drain are to be carried out in two separate operations and not simultaneously at the same location.

C.5 **PROFILE**

The profile drawing shows the depth of cuts from the ground beside the stake to the final invert of the drain in meters and decimals of a meter. These cuts are established for the convenience of the Contractor; however, benchmarks will govern the final elevation of the drain. Benchmarks have been established along the course of the drain and their locations and elevations are noted on the profile drawing.

C.6 **GRADE**

The Contractor shall provide and maintain in good working condition, an approved system of establishing a grade sight line to ensure the completed works conform to the profile drawing. In order to confirm the condition of his system and to eliminate the possibility of minor errors on the drawings, he shall ensure his grade sight line has been confirmed to be correct between a minimum of two control points (bench marks) and shall spot check the actual cuts and compare with the plan cuts prior to commencement of tile installation. He shall continue this procedure from control point to control point as construction of the drain progresses. When installing a drain towards a fixed point such as a bore pipe, the Contractor shall uncover the pipe and confirm the elevation, using the sight line, a sufficient distance away from the pipe in order to allow for any necessary minor grade adjustments to be made in order to conform to the as built elevation of the bore pipe. All tile improperly installed due to the Contractor not following these procedures shall be removed and replaced entirely at the Contractor's cost.

When following the procedures and a significant variation is found, the Contractor shall immediately cease operations and advise the Engineer.

C.7 **EXCAVATION**

.1 **Trench:** Unless otherwise specified, all trenching shall be done with a recognized farm tiling machine approved by the Engineer or Superintendent. The machine shall shape the bottom of the trench to conform to the outside diameter of the pipe for a minimum width of one-half of the outside diameter. The minimum trench width shall be equal to the outside diameter of the tile to be installed plus 100mm (4") on each side unless otherwise approved. The maximum trench width shall be equal to the outside diameter of the tile to be installed plus 250mm (10") on each side unless otherwise approved.

C.7 **EXCAVATION** (cont'd)

.2 **Scalping**: Where the depths of cuts in isolated areas along the course of the drain as shown on the profile exceed the capacity of the Contractor's tiling machine, he shall lower the surface grade in order that the tiling machine may trench to the correct depth. Topsoil is to be stripped over a sufficient width that no subsoil will be deposited on top of topsoil. Subsoil will then be removed to the required depth and piled separately. Upon completion of backfilling, the topsoil will then be replaced to an even depth over the disturbed area. The cost for this work shall be included in his tender price.

.3 **Excavator**:Where the Contractor's tiling machine consistently does not have the capacity to dig to the depths required or to excavate the minimum trench width required, he shall indicate in the appropriate place provided on the tender form his proposed methods of excavation.

Where the use of an excavator is either specified on the drawings or approved as evidenced by the acceptance of his tender on which he has indicated the proposed use of a backhoe he shall conform to the following requirements:

a) the topsoil shall be stripped and replaced in accordance with Section .2 "Scalping".
b) all tile shall be installed on a bed of 19mm crushed stone with a minimum depth of 150mm which has been shaped to conform to the lower segment of the tile.
c) the Contractor shall allow for the cost of the preceding requirements (including the supply of the crushed stone) in his lump sum tender price unless it is otherwise provided for in the contract documents.

.4 **Backfilling Ditch**: Where the contract includes for a closed drain to replace an open drain and the ditch is to be backfilled, the Contractor shall install the tile and backfill the trench prior to backfilling the ditch unless otherwise noted. The distance the trench shall be located away from the ditch shall be as noted on the drawings, (beyond area required for stockpiling topsoil and backfilling). After tile installation is complete topsoil (if present) shall be stripped and stockpiled within the above limits prior to backfilling of ditch. Only tracked equipment shall be permitted to cross backfilled tile trench and must be at 90 degrees to line of tile.

C.8 **INSTALLATION**

The tile is to be laid with close fitting joints and in regular grade and alignment in accordance with the plan and profile drawings. The tiles are to be bevelled, if necessary, to ensure close joints (in particular around curves). Where, in heavy clay soils, the width of a joint exceeds 10mm the joint shall be wrapped with filter cloth as below. Where the width of a joint exceeds 12mm the tile shall first be removed and the joint bevelled to reduce the gap. The maximum deflection of one tile joint shall be 15 degrees. Where a drain connects to standard or ditch inlet catchbasins or junction box structures, the Contractor shall include in his tender price for the supply and installation of compacted Granular 'A' bedding under areas backfilled from the underside of the pipe to undisturbed soil. The connections will then be grouted.

Where a tile drain passes through a bore pit, the Tile Contractor shall include in his tender price for the supply and placement of compacted Granular "A" bedding from the underside of the pipe down to undisturbed soil within the limits of the bore pit.

As above and where soil conditions warrant, the Engineer may require (or as specified on the drawings) that each tile joint be wrapped with synthetic filter cloth. The width of the filter cloth shall be 300mm wide for tile sizes of 150mm to 300mm and 400mm wide for sizes of 350mm to 750mm. The filter cloth shall cover the full perimeter of the tile and overlap a minimum of 100mm or as specified on the drawings. The type of cloth shall be Mirafi 140NL for loam soils and 150N for sandy soil. Any such work not shown on the drawings shall be considered as an addition to the contract price unless specified on the drawings.

C.9 **ROAD AND LANEWAY SUB-SURFACE CROSSINGS**

All road and laneway crossings may be made with an open cut in accordance with standard detailed drawings in the specifications or on the drawings. The exact location of the crossing shall be verified and approved by the Road Authority and the Engineer and/or Superintendent.

C.10 **BACKFILLING**

As the laying of the tile progresses, blinding up to the springline including compaction by tamping (by hand) is to be made on both sides of the tile. No tile shall be backfilled until inspected by the Engineer or Drainage Superintendent unless otherwise approved by the Engineer.

The remainder of the trench shall be backfilled with special care being taken in backfilling up to a height approximately 150mm above the top of the tile to ensure that no tile breakage occurs. During the backfilling operation no equipment shall be operated in a way that would transfer loads onto the tile trench. Surplus material is to be mounded over the tile trench so that when settlement takes place the natural surface of the ground will be restored. Upon completion, a minimum cover of 600mm is required over all tile. Where stones larger than 150mm are present in the backfill material, they shall be separated from the material and disposed of by the Contractor.

Where a drain crosses a lawn area, the backfilling shall be carried out as above except that, unless otherwise specified, the backfill material shall be mechanically compacted to eliminate settlement.

C.11 **UNSTABLE SOIL**

The Contractor shall immediately contact the Engineer or Superintendent if quicksand is encountered, such that installation with a tiling machine is not possible. The Engineer shall, after consultation with the Superintendent and Contractor, determine the action necessary and a price for additions or deletions shall be agreed upon prior to further drain installation. Where directed by the Engineer, test holes are to be dug to determine the extent of the affected area. Cost of test holes shall be considered an addition to the contract price.

C.12 **ROCKS**

The Contractor shall immediately contact the Engineer or Superintendent if boulders of sufficient size and number are encountered such that the Contractor cannot continue trenching with a tiling machine. The Engineer or Superintendent may direct the Contractor to use some other method of excavating to install the drain. The basis of payment for this work shall be determined by the Engineer and Drainage Superintendent.

If only scattered large stones or boulders are removed on any project, the Contractor shall haul same to a nearby bush or fence line, or such other convenient location as approved by the Landowners(s).

C.13 **BROKEN, DAMAGED TILE OR EXCESS TILE**

The Contractor shall remove and dispose of off-site all broken (existing or new), damaged or excess tile or tiles. If the tile is supplied by the Municipality, the Contractor shall stockpile all excess tile in readily accessible locations for pickup by the Municipality upon the completion of the job.

C.14 **TRIBUTARY DRAINS**

Any tributary tile encountered in the course of the drain shall be carefully taken up by the Contractor and placed clear of the excavated earth. If the tributary tile drains encountered are clean or reasonably clean, they shall be connected into the new drain. Where existing drains are full of sediment, or contain pollutants, the decision to connect those drains to the new drain shall be left to the Engineer or Superintendent. Each tributary tile connection made by the Contractor shall be located and marked with a stake and no backfilling shall take place until the connection has been approved by the Engineer or Superintendent.

For tributary drains 150mm dia. or smaller connected to new tiles 250mm dia. or larger, and for 200mm dia. connected to 350mm dia. or larger, the Contractor shall neatly cut a hole in the middle of a tile length. The connections shall be made using a prefabricated adaptor. All other connections shall be made with prefabricated wyes or tees conforming to Boss 2000 split coupler or approved equal.

Where an open drain is being replaced by a new tile drain, existing tile outlets entering the ditch from the side opposite the new drain shall be extended to the new drain. All existing metal outlet pipes shall be carefully removed, salvaged, and left for the owner. Where the grade of the connection passes through the newly placed backfill in the ditch, the backfill material below the connection shall be thoroughly compacted and metal pipe of a size compatible with the tile outlet shall be installed so that a minimum length of 2 meters at each end is extending into undisturbed soil.

C.14 **TRIBUTARY DRAINS** (cont'd)

Where locations of tiles are shown on the drawings the Contractor shall include in his tender price, all costs for connecting those tiles to the new drain regardless of length.

Where tiles not shown on the drawings are encountered in the course of the drain, and are to be connected to the new drain, the Contractor shall be paid for each connection at the rate outlined in the Form of Tender and Agreement.

C.15 **OUTLET PIPES**

Corrugated steel pipe shall be used to protect the tile at its outlet. It shall have a hinged metal grate with a maximum spacing between bars of 40mm. The corrugated steel pipe shall be bevelled at the end to generally conform to the slope of the ditch bank and shall be of sufficient size that the tile can be inserted into it to provide a solid connection. The connection will then be grouted immediately.

The installation of the outlet pipe and the required rip-rap protection shall conform to the standard detailed drawing as noted on the drawing.

C.16 **CATCHBASINS AND JUNCTION BOXES**

.1 **Catchbasins**: Unless otherwise noted or approved, catchbasins shall be in accordance with O.P.S.D. 705.010, 705.030. All catchbasins shall include two - 150mm riser sections for future adjustments. All ditch inlet catchbasins shall include one 150mm riser section for future adjustments. The catchbasin top shall be a "Bird Cage" type substantial steel grate, removable for cleaning and shall be inset into a recess provided around the top of the structure. The grate shall be fastened to the catchbasin with bolts into the concrete. Spacing of bars on grates for use on 600mmx600mm structures shall be 65mm centre to centre. Spacing of bars on grates for use on structures larger than 600mmx600mm shall be 90mm with a steel angle frame.

The exact location and elevation of catchbasins shall be approved by the Road Authority or the Engineer/Superintendent. Catchbasins offset from the drain shall have "Boss 2000" 200mm diameter leads or approved equal unless otherwise noted and the leads shall have a minimum of 600mm of cover. The leads shall be securely grouted at the structures and the drain.

.2 **Junction Boxes**: Junction boxes shall be the precast type unless otherwise approved. Dimensions for precast junction boxes shall conform to those for catchbasins. The inside dimensions of the box shall be a minimum of 100mm larger than the outside diameter of the largest pipe being connected. The minimum cover over the junction box shall be 600mm. Benching to spring line shall be supplied with all junction boxes.

.3 **Connections**: Catchbasins and junction boxes shall not be ordered until elevations of existing pipes being connected have been verified in the field as indicated on the drawings. All connections shall be securely grouted at both the inside and outside walls of the structure.

.4 **Installation**: Where the native material is clay, all catchbasins shall be backfilled with an approved granular material placed and compacted to a minimum width of 300mm on all sides with the following exception. Where the native material is sandy or granular in nature it may be used as backfill. Filter cloth shall be placed between the riser sections of all catchbasins.

Where the Contractor has over excavated or where ground conditions warrant, the structure shall be installed on a compacted granular base.

The Contractor shall include in his tender price for the construction of a berm behind all ditch inlet structures. The berm shall be constructed of compacted clay keyed 300mm into undisturbed soil. Topsoil shall be distributed to a 65mm thickness and seeded unless otherwise specified. The Contractor shall also include for regrading, shaping and seeding of road ditches for a maximum of 15 meters each way from all catchbasins.

C.17 **BLIND INLETS**

Where specified, blind inlets shall be installed along the course of the drain in accordance with details on the drawings.

C.18 **GRASSED WATERWAY**

Topsoil to be stripped from construction area and stockpiled prior to construction of waterway. Waterway to be graded into a parabolic shape to the width shown on the drawings. Topsoil to be relevelled over the waterway and other areas disturbed by construction.

Waterway to be prepared for seeding by harrowing and then seeded by drilling followed by rolling. Seeding rate to be 85 Kg/Ha with the following mixture:

30% Canon Canada Bluegrass
25% Koket Chewings Fescue
30% Rebel Tall Fescue
15% Diplomat Perennial Rye
Plus #125 Birdsfoot Trefoil (25% of Total Weight)

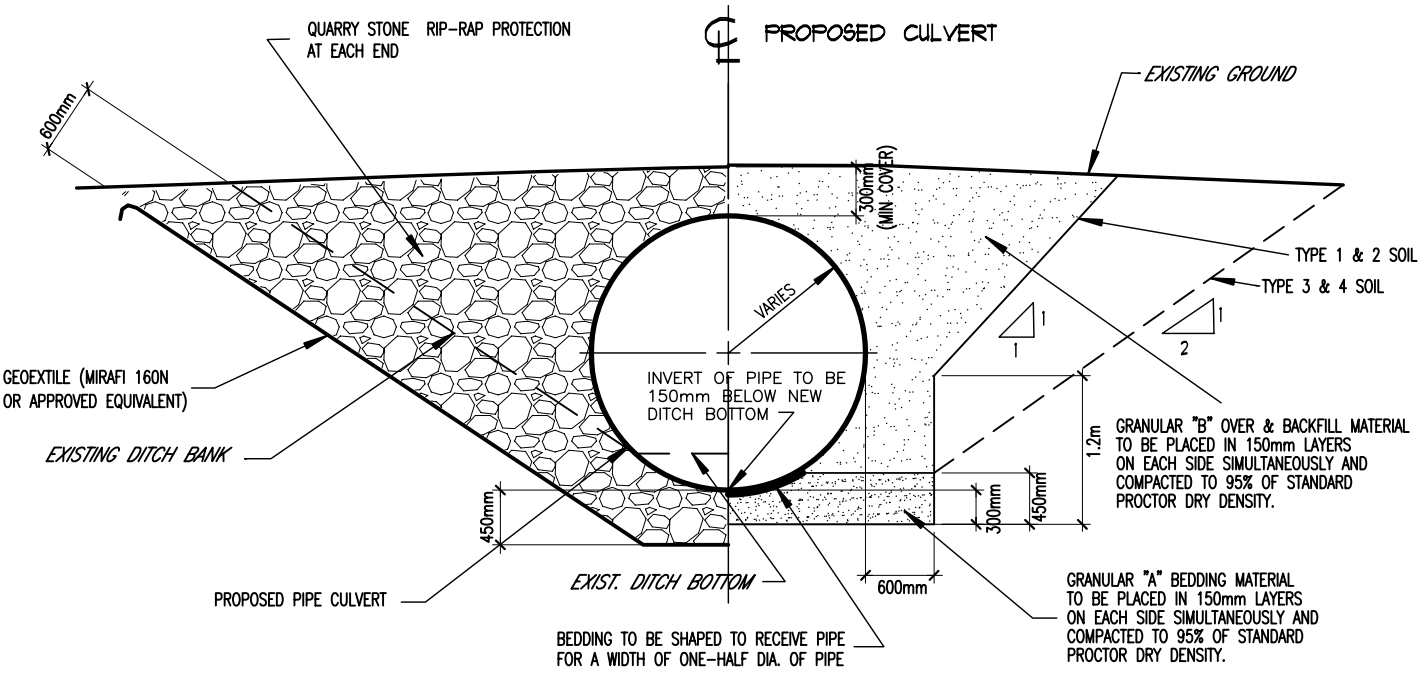
C.19 **BACKFILLING EXISTING DITCHES**

The Contractor shall backfill the ditch sufficiently for traversing by farm machinery. If sufficient material is not available from the old spoil banks to fill in the existing ditch, the topsoil shall be stripped and the subsoil shall be bulldozed into the ditch and the topsoil shall then be spread over the backfilled ditch unless otherwise specified on the contract drawings. The Contractor shall ensure sufficient compaction of the backfill and if required, repair excess settlement up to the end of the warranty period. The final grade of the backfilled ditch shall provide an outlet for surface water.

C.20 **RECOMMENDED PRACTICE FOR CONSTRUCTION OF SUBSURFACE DRAINAGE SYSTEM**

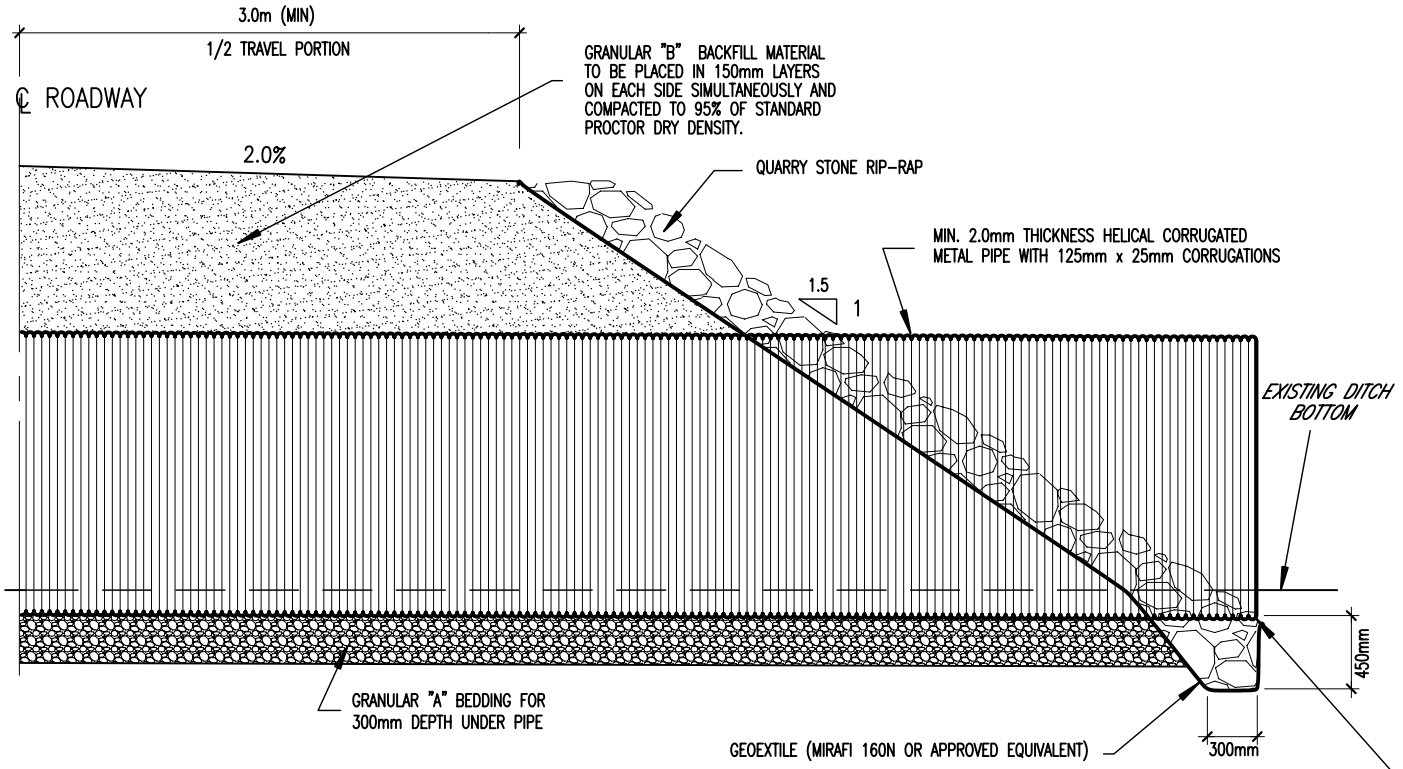
Drainage guide for Ontario, Ministry of Agriculture, Food and Rural Affairs Publication Number 29 and its amendments, dealing with the construction of Subsurface Drainage systems, shall be the guide to all methods and materials to be used in the construction of tile drains except where superseded by other specifications of this contract.

The requirements of licensing of operators, etc. which apply to the installation of closed drains under the Tile Drainage Act shall also be applicable to this contract in full unless approval otherwise is given in advance by the Engineer.



HALF ELEVATION

HALF SECTION



HALF SECTION THROUGH PIPE

NOTES

1) WHERE THE CULVERT IS TO BE INSTALLED IN POOR SOIL CONDITIONS, THE BEDDING MATERIAL SHALL BE 19mm CRUSHED STONE COMPLETELY WRAPPED IN GEOTEXTILE SUCH AS MIRAFI 160N OR APPROVED EQUIVALENT.

TYPICAL FARM CULVERT INSTALLATION DETAIL

Scale: N.T.S.	Approved by:	Date: January 1983
Drawn by: jk	M.P.D.	Revised: November 2000

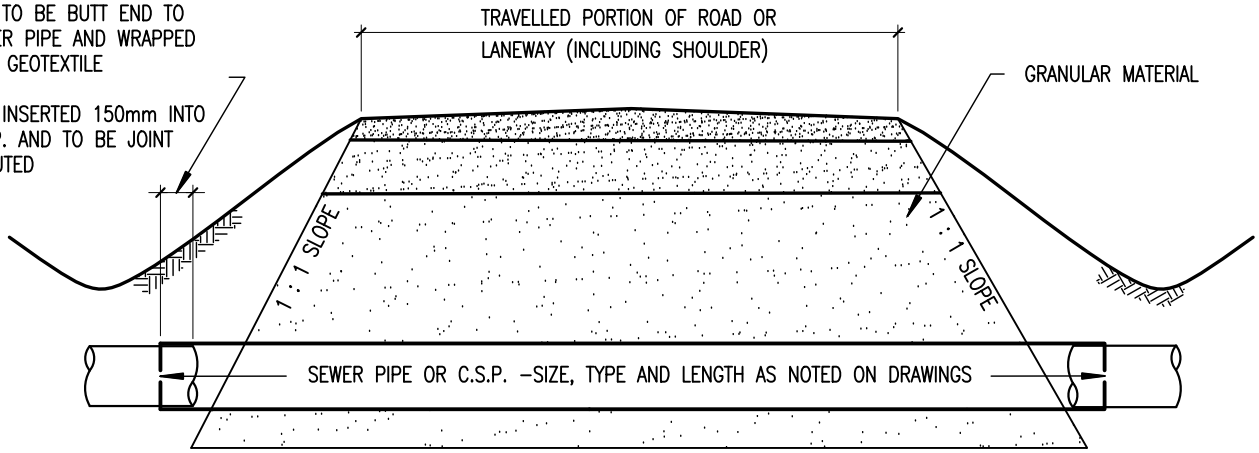
ELEVATION & SECTION

STANDARD DETAILED DRAWING No. 01

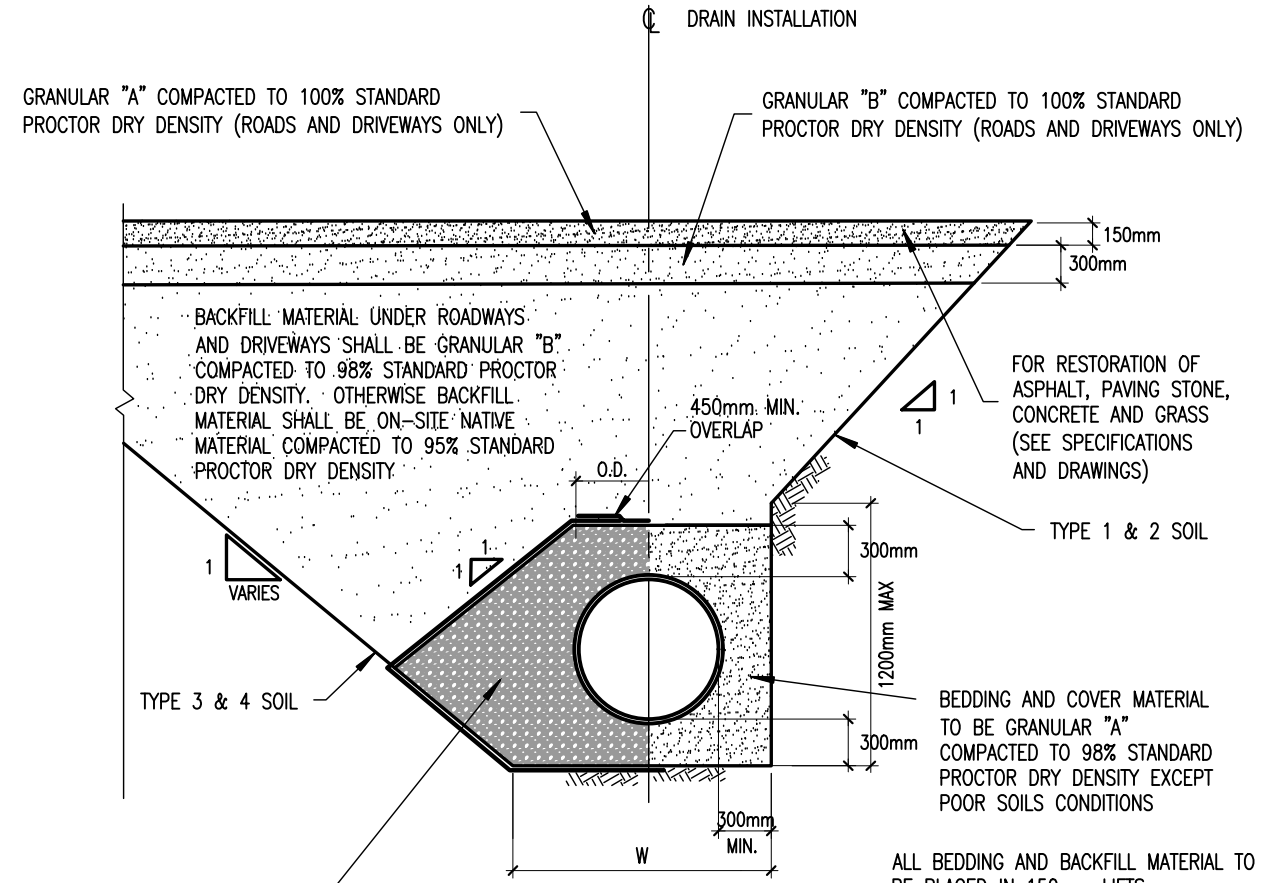
SPRIET ASSOCIATES LONDON LIMITED
CONSULTING ENGINEERS ARCHITECTS

1. TILE TO BE BUTT END TO SEWER PIPE AND WRAPPED WITH GEOTEXTILE

2. TILE INSERTED 150mm INTO C.S.P. AND TO BE JOINT GROUTED

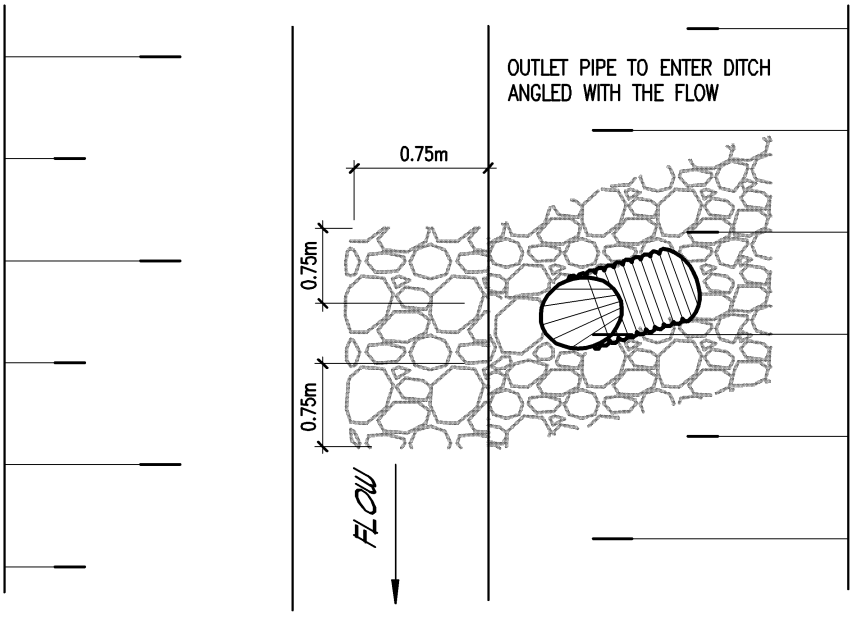


SECTION THROUGH PIPE



CROSS SECTION

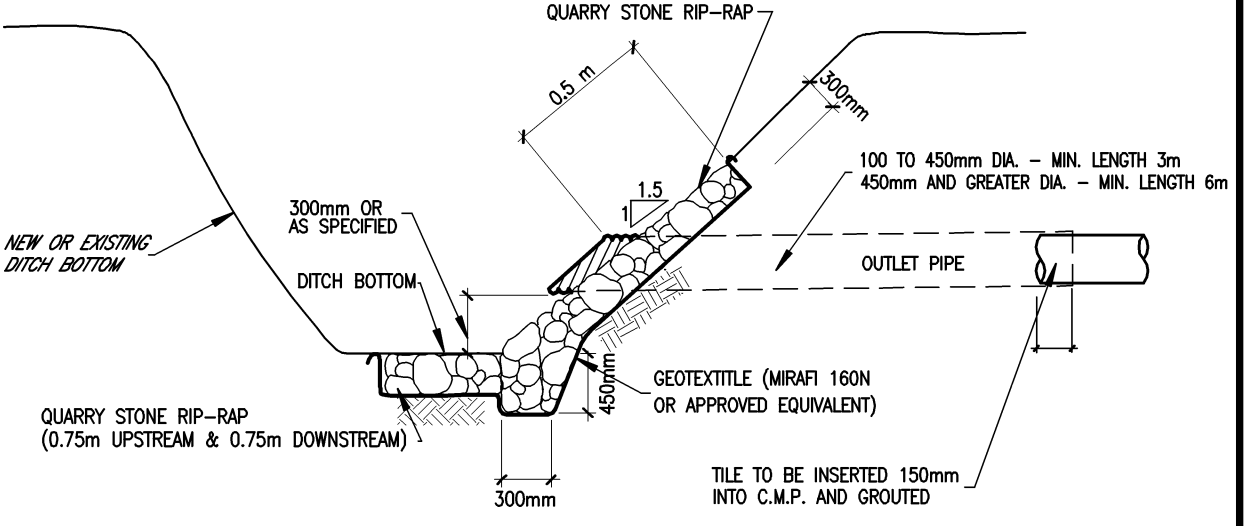
TYPICAL INSTALLATION DETAIL FOR SEWER PIPE UNDER DRIVEWAYS AND TRAVELLED PORTIONS OF ROADS		
Scale: N.T.S.	Approved by:	Date: January 1983
Drawn by: jk	M.P.D.	Revised: JULY 2018
ELEVATION & SECTION		STANDARD DETAILED DRAWING No. 02
SPRIET ASSOCIATES LONDON LIMITED CONSULTING ENGINEERS ARCHITECTS		



PLAN

NOTES

1. WHERE THE DISTURBED AREA EXCEEDS THE MIN. WIDTHS, RIP-RAP TO EXTEND TO A MIN. OF 600mm BEYOND THE DISTURBED AREA



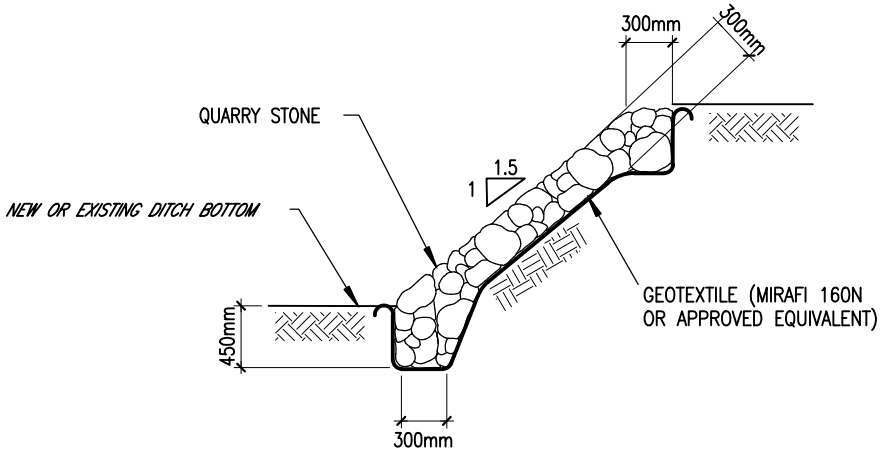
TYPICAL OUTLET RIP-RAP

NOTES

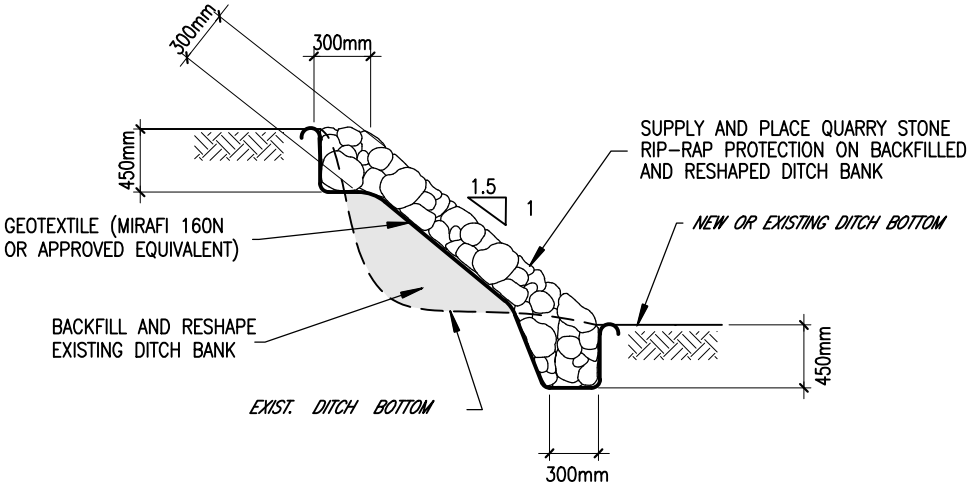
1. RIP-RAP TO EXTEND UP THE SLOPE 0.5 METER ABOVE TOP OF OUTLET
2. WHERE SURFACE RUN ENTERS DITCH AT OUTLET PIPE, A ROCK CHUTE SHALL BE INSTALLED (SEE S.D.D. No. 05) AND PIPE SHALL BE INSTALLED ADJACENT TO ROCK CHUTE.
3. HINGED RODENT GATE TO BE AFFIXED TO END OF OUTLET PIPE.

TYPICAL OUTLET RIP-RAP THROUGH SIDE SLOPE OF DITCH		
Scale: N.T.S.	Approved by:	Date: November 2000
Drawn by: jk	M.P.D.	Revised: January 2009
PLAN & SECTION		STANDARD DETAILED DRAWING No. 03

SPRIET ASSOCIATES LONDON LIMITED
CONSULTING ENGINEERS ARCHITECTS

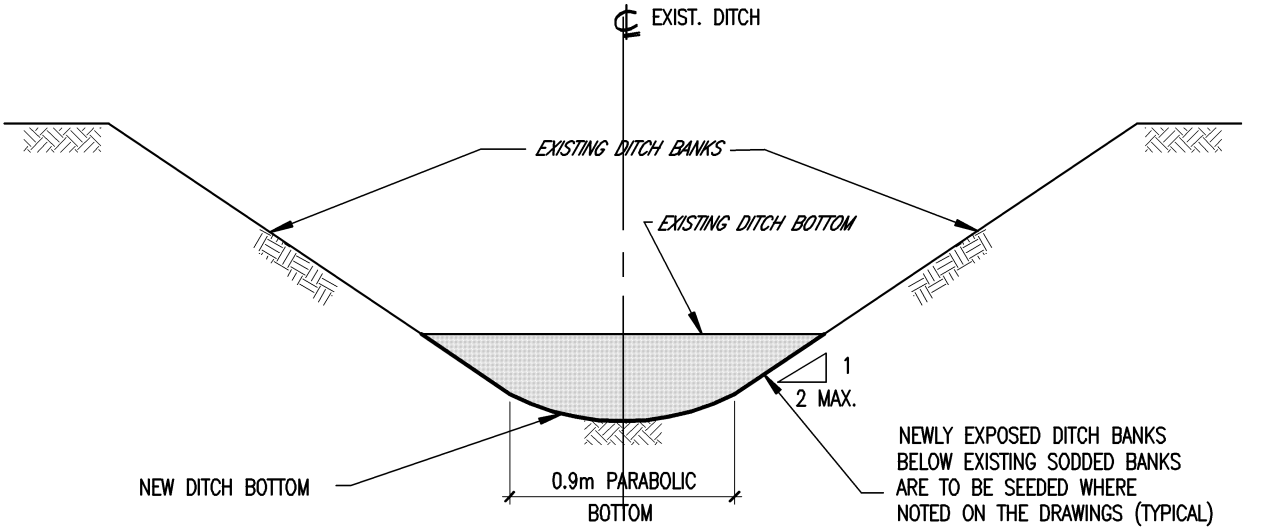


TYPICAL DITCH BANK RIP–RAP

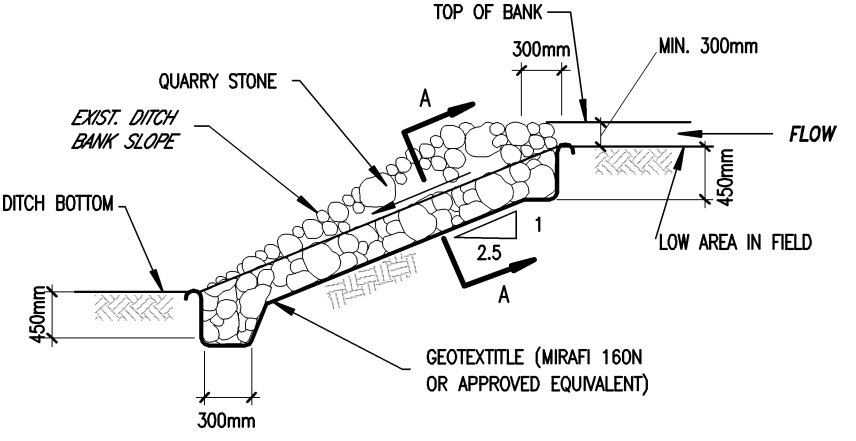


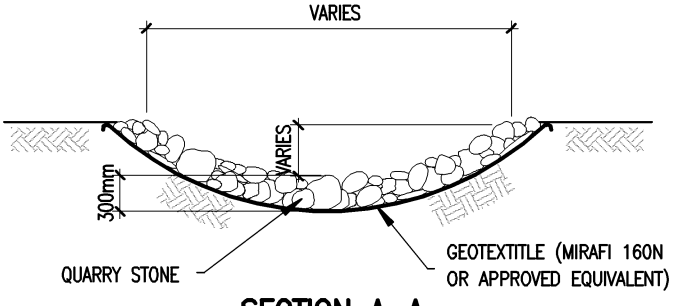
TYPICAL DITCH BANK RIP–RAP WITH BACKFILLING OF WASHOUT

TYPICAL DITCH BANK RIP–RAP DETAILS		
Scale: N.T.S.	Approved by:	Date: July 2000
Drawn by: jk	M.P.D.	Revised: November 2000
SECTIONS		STANDARD DETAILED DRAWING No. 04
SPRIET ASSOCIATES LONDON LIMITED CONSULTING ENGINEERS ARCHITECTS		



TYPICAL DITCH BOTTOM CLEANOUT





SECTION A–A

TYPICAL ROCK CHUTE

TYPICAL DITCH BOTTOM CLEANOUT TYPICAL ROCK CHUTE CONSTRUCTION		
Scale: N.T.S.	Approved by:	Date: November 2000
Drawn by: jk	M.P.D.	Revised:
SECTIONS		STANDARD DETAILED DRAWING No. 05
SPRIET ASSOCIATES LONDON LIMITED CONSULTING ENGINEERS ARCHITECTS		

Schedule "B"

By-law Number 93-2021

Of The Corporation
of the Municipality of Chatham-Kent

A By-law to provide for drainage work in the Municipality of Chatham-Kent for the Shaw Branch of the Facey East Drain (Community of Zone)

Finally Passed the 31st day of May, 2021.

Whereas a requisite number of owners have petitioned the Council of the Municipality of Chatham-Kent in accordance with the provisions of The Drainage Act requesting that the Shaw Branch of the Facey East Drain be constructed and be provided with a sufficient outlet.

And Whereas the Council of the Municipality of Chatham-Kent has procured a Report made by Spriet Associates London Limited, dated February 19, 2021.

And Whereas the estimated total cost of constructing the drainage work is $36,500.00.

And Whereas $36,500.00 is the amount to be contributed by the Municipality of Chatham-Kent for construction of the drainage works.

Be it Therefore Enacted by the Municipal Council of the Municipality of Chatham-Kent, pursuant to the provisions of The Drainage Act and amendments thereto as follows:

1. That the Report is hereby adopted and shall be completed in accordance therewith.
2. (1) The Corporation of the Municipality of Chatham-Kent may borrow on the credit of the Corporation the amount of $36,500.00 being the amount necessary for construction of the drainage works.
   (2) The Council may authorize the borrowing of monies towards the construction by the issuance and sale of debentures. Pending the sale of the debentures, Council authorizes the Mayor and Treasurer to make such temporary borrowing as may be required in order to meet the payments due to the vendors.
   (3) The Corporation may issue debentures for the amount borrowed less the total amount of,
      (a) Grants received under Section 85 of the Act;
      (b) Commuted payments made in respect of lands and roads assessed within the municipality;
      (c) Monies assessed in and payable by another municipality, and such debentures shall be made payable within five years from the date of the debenture and shall bear interest at a rate not higher than the rate charged by the Ontario Municipal Improvement Corporation on the date of sale of such debenture.

(4) A special equal annual rate sufficient to redeem the principal and interest on the debentures shall be levied upon the lands and roads as set forth in Schedule "A" hereto attached to be collected in the same manner and at the same time as other taxes are collected in each year for five years after the passing of this by-law.

(5) For paying the amount of nil being the amount assessed upon the lands and roads belonging to or controlled by the municipality, a special rate sufficient to pay the amount assessed plus interest thereon shall be levied upon the whole rateable property in the Municipality of Chatham-Kent in each year of five years after the passing of this by-law to be collected in the same manner and at the same time as other taxes are collected.

(6) All assessments of $500.00 or less are payable in the first year in which the assessment is imposed.

(7) This by-law comes into force on the passing thereof and may be cited as the Shaw Branch of the Facey East Drain By-law.

This By-law shall come into full force and effect upon the final passing thereof.

Read a First and Second Time, Provisionally adopted this 22nd day of March, 2021

Read a Third Time, Enacted this 31st day of May, 2021

Mayor – Darrin Canniff

Clerk - Judy Smith

Schedule "C"

Court File No.
CV-23-00001165-0000

ONTARIO
SUPERIOR COURT OF JUSTICE

IN THE MATTER OF the *Drainage Act,* R.S.O. 1990, Chapter D. 17

AND IN THE MATTER OF an application by the Corporation of the Municipality of Chatham-Kent for certain orders of the Drainage Referee with respect to construction of the Shaw Branch of the Facey East Drain and By-law No.

B E T W E E N:

CORPORATION OF THE MUNICIPALITY OF CHATHAM-KENT
Applicant

- and -

CANADIAN PACIFIC RAILWAY COMPANY

Respondent

APPLICATION pursuant to Section 106 of the *Drainage Act,* R.S.O. 1990, c. D.17

NOTICE OF APPLICATION

TO THE RESPONDENT:

A LEGAL PROCEEDING HAS BEEN COMMENCED BY the applicant. The claim made by the applicant appears on the following page.

THIS APPLICATION will come for a hearing on TO BE DETERMINED at 10:00 a.m. at 425 Grand Avenue West, Chatham, Ontario.

IF YOU WISH TO OPPOSE THIS APPLICATION, to receive notice of any step in the application, or to be served with any documents in the application, you or your Ontario lawyer acting for you must forthwith prepare a notice of appearance in Form 38A prescribed by the *Rules of Civil Procedure,* serve it on the applicant, and file with it, proof of service in the court office and you or your lawyer must appear at the hearing.

IF YOU WISH TO PRESENT AFFIDAVIT OR OTHER DOCUMENTARY EVIDENCE TO THE COURT OR TO EXAMINE OR CROSS-EXAMINE WITNESSES ON THE APPLICATION, you or your lawyer must, in addition to

serving your notice of appearance, serve a copy of the evidence on the applicants' lawyer or, where the applicants do not have a lawyer, serve it on the applicants and file it, with proof of service, in the court office where the application is to be heard as soon as possible, but at least four days before the hearing.

IF YOU FAIL TO APPEAR AT THE HEARING, JUDGMENT MAY BE GIVEN IN YOUR ABSENCE AND WITHOUT FURTHER NOTICE TO YOU. IF YOU WISH TO OPPOSE THIS APPLICATION BUT ARE UNABLE TO PAY LEGAL FEES, LEGAL AID MAY BE AVAILABLE TO YOU BY CONTACTING A LOCAL LEGAL AID OFFICE.

Date: July 6 2023 Issued by: Ava Hamelin Digitally signed by Ava Hamelin Date: 2023.07.06 12:21:28 -04'00'

Local Registrar
Address of Court Office:
425 Grand Ave West,
Chatham ON N7M 6M8

TO: **Canadian Pacific Railway Company**
7550 Ogden Dale Road S.E.
Calgary, Alberta T2C 4X9

APPLICATION

1. **The Applicant, the Corporation of the Municipality of Chatham-Kent (the "Applicant") makes this Application for:**

   a. An order, pursuant to Section 106(1)(d) of the *Drainage Act,* that construction of the Shaw Branch of the Facey East Drain (the "drainage works") proceed forthwith in accordance with the recommendations of the Engineer's Report of February 19, 2021 prepared by Spriet Associates pursuant to a petition under Section 4 of the *Drainage Act,* as finally adopted under By-law No. 93-2021 (the "Engineer's Report");

   b. An order, pursuant to Sections 63 and 106(1)(b) and (d) of the *Drainage Act,* authorizing the Applicant and its agents to complete the drainage works as specified in the Engineer's Report, and, for that purpose, to enter upon those lands owned by the Respondent as specified in the Engineer's Report for the purposes of carrying out recommended drainage works thereon, provided such entry shall be carried out in a manner that respects the rights of each party, including in respect of rail safety and operational concerns, and in accordance with the *Drainage Act and* Engineer's Report thereunder;

   c. An order, pursuant to Sections 63 and 106(1)(b) and (d) of the *Drainage Act* that the Applicant is authorized, by virtue of and in accordance with the working easement designated in the Engineer's Report and the provisions of the *Drainage*

Act, to enter upon those specified lands owned by the Respondent for the purposes of carrying out the drainage works recommended therein, provided such entry shall be carried out in a manner that respects the rights of each party, including in respect of rail safety and operational concerns;

d. An order, pursuant to Section 106 of the *Drainage Act,* requiring, upon completion of the drainage works and certification thereof by the Drainage Engineer, the Respondent to pay to the Applicant those amounts assessed to it in respect of the drainage works, pursuant to *Drainage Act,* the Engineer's Report as finally adopted under By-law No. 93-2021, and final certification by the Engineer;

e. An order abridging the time for service and filing, if necessary; and

f. Such further and other relief as the Applicant may request and the Drainage Referee may deem just.

2. The grounds for the Application are:

a. On February 11, 2020, a petition under Section 4 of the *Drainage Act* was filed with the Applicant by property owner Alex Miller, for those lands owned by Alex Frank Miller and Darlene Miller, being the petitioning owners of those lands located Part Lot 3 and 4, Concession 3, Zone Township in the Municipality of Chatham-Kent, Property Identifier Number 00627-0016, associated with Roll No.

1-093 (the "Miller Lands"), requesting the provision of "Legal and Functional outlet" to the East Branch Facey Drain;

b. On March 2, 2020, by resolution of the Applicant's Municipal Council, the Applicant appointed Spriet Associates London Limited (the "Engineer") to prepare the Engineer's Report under Section 4 of the *Drainage Act* on the Facey Drain East Branch in the Community of Zone Township;

c. On October 27, 2020, and in accordance with Section 9 of the *Drainage Act,* an on-site meeting occurred in respect of the petition to examine the project area;

d. On February 3, 2021, an additional on-site meeting occurred as between the Applicant, Respondent, and the Engineer to examine the project area;

e. On February 21, 2021, the Engineer filed the Engineer's Report proposing the construction of the Shaw Branch of the Facey East Drain, in the Community of Zone, Municipality of Chatham-Kent;

f. The Engineer's Report commented, regarding the existing drainage conditions within the drainage area, that:

    i. The petitioning landowner was requesting a deeper outlet to allow from systematic tiling of approximately 6.0 hectares of land, and that the lands were subject to frequent ponding along the south limit of his property;

ii. The Applicant's Drainage Superintendent indicated that this would require a crossing under Canadian Pacific Railway lands and that the new drain would be a tributary to the Facey East Drain;

iii. A site meeting occurred with the Respondent's officials to discuss the potential crossing and that the Respondent indicated that any borings under 300 mm in diameter did not require a geotechnical report;

g. The Engineer's Report determined that "the lands within the area requiring drainage are currently serviced by a 900 mm diameter surface culvert that does not contain sufficient outlet to allow for subsurface drainage";

h. The Engineer's Report determined that "construction of a new crossing under Canadian Pacific Railway lines would necessitate maintenance work on the Facey East Drain downstream of the proposed work";

i. The Engineer's Report recommended as follows:

i. A new branch drain, to be known as the Shaw Branch, be constructed commencing at the East Branch of the Facey Drain and travelling north-westerly under the Canadian Pacific Railway allowance to just within the limits of the Miller Lands for a total length of 43 lineal meters;

ii. The crossing under the railway be done by jack and bore to minimize disruption to rail traffic;

iii. That a swale be constructed from the Miller Lands east to the existing 900mm diameter surface culvert to ensure that the lands receive adequate surface drainage;

iv. That a catch basin be installed on the upstream end of the branch to alleviate surface ponding and provide a visible connection point to the drain;

v. That the Facey East Drain be cleaned out under maintenance to provide a sufficient outlet for the Shaw Branch;

j. The Engineer's Report made Assessments for Benefit Costs against Property Identifier Number 00627-0015, legally described as Part Lots 3 and 4, Concession 3, Zone Township, owned by the Huston Farms Inc. (the "Huston Lands"), the Miller Lands, and the Respondent's lands, being Property Identified Number 00627-0055, legally described as Part Lots 3-5, Concession 3, Zone Township (the "Railway Lands");

k. The Engineer's Report made a Special Assessment under Section 26 of the *Drainage Act* against the Respondent for the increased cost to the drainage work for boring a 250mm diameter smooth wall steep pipe across their right of way on the Shaw Branch;

l. The Engineer's Report made Assessments for Outlet Costs against the Miller Lands and the Railway Lands;

m. On February 22, 2021, the Applicant served the Notice of Consideration of the Engineer's Report in accordance with the requirements of the *Drainage Act,* including upon the Respondent;

n. On March 16, 2021, the Drainage Board approved a recommendation that the Engineer's Report be provisionally adopted as presented and that the Applicant's Municipal Council give 1st and 2nd reading to the By-law with respect to the Shaw Branch of the Facey East Drain;

o. On March 22, 2021, the Applicant's Municipal Council gave 1st and 2nd reading to the By-law for provisional approval;

p. On April 12, 2021, the Applicant served a copy of the provisionally adopted By-law in accordance with the requirements of the *Drainage Act,* including upon the Respondent;

q. On May 4, 2021, the Drainage Board approved a recommendation that the Applicant's Municipal Council give 3rd and final reading with respect to the By-law;

r. On May 31, 2021, the Applicant's Municipal Council gave 3rd and final reading to the By-law, being finally adopted as By-law No. 93-2021 (the "By-law"), including the enactment that the Engineer's Report be adopted and completed in accordance with the By-law;

s. At no time did the Respondent initiate any appeal under the *Drainage Act* or make application to quash the By-law;

t. All rights of appeal available to the Respondent have expired;

u. The Applicant has advised the Respondent that it is prepared to enter an encroachment agreement with the Respondent to carry out the requisite drainage work, with reasonable terms to reflect rail safety and operational requirements, provided such an agreement is also consistent with the provisions of the *Drainage Act*;

v. The Respondent refuses to permit the Applicant access to its lands to carry out the requisite drainage works pursuant to the *Drainage Act,* By-law and Engineer's

Report adopted thereunder and further refuses to grant the Applicant an encroachment agreement to carry out the requisite drainage work under the *Drainage Act*;

w. The Respondent denies all liability for costs assessed to it pursuant to *Drainage Act,* By-law and Engineer's Report adopted thereunder;

x. The Respondent denies the Railway Lands derive any drainage benefit whatsoever from the proposed drainage work;

y. The Ontario *Drainage Act,* R.S.O. 1990, c. D. 17, as amended, including Sections 4, 63, 26, and 106 thereof;

z. *Rules of Practice and Procedure in Proceedings before the Referee,* Ontario Regulation 232/15, as amended;

aa. Rules 1.04, 10.5, 2.01, 3.02, 14.05, 38, 39, 53 and 57 of the *Rules of Civil Procedure,* as amended;

bb. Rule 131 of the *Courts of Justice Act,* RSO 1990 c. 43; and

cc. Such other and further grounds as counsel may advise and the Referee may permit.

3. **The following documentary evidence will be used at the hearing of the Application:**

a. The Affidavit of Blaise Chevalier, Drainage Superintendent, to be sworn, and Exhibits attached thereto;

b. Such further and other evidence as counsel may advise and the Drainage Referee permits.

Date: July 5, 2023

Corporation of the Municipality of Chatham-Kent

315 King St. W.
Chatham, ON. N7M 5K8

Emily Crawford (LSUC No. 69803D)
emilycr@chatham-kent.ca
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(519) 360-1998 (ph)
(519) 436-3237 (fx)

Lawyers for the Applicant

COURT FILE NO.

CORPORATION OF MUNICIPALITY OF CHATHAM-KENT

Applicant

-and- **CANADIAN PACIFIC RAILWAY COMPANY**
Respondent

ONTARIO
SUPERIOR COURT OF JUSTICE
COURT OF DRAINAGE REFEREE

PROCEEDING COMMENCED AT
CHATHAM, ONTARIO

NOTICE OF APPLICATION

Corporation of the Municipality of Chatham-Kent
315 King Street West, P.O. Box 640
Chatham, ON N7M 5K8

Tel: (519) 360-1998
Email: emilycr@chatham-kent.ca
lynnk@chatham-kent.ca

Emily S. Crawford 69803D
Lawyers for the Applicant

CORPORATION OF THE MUNICIPALITY OF CHATHAM-KENT Applicant	-and-	CANADIAN PACIFIC RAILWAY COMPANY Respondent	Court File No. CV-23-00001165-0000

ONTARIO
SUPERIOR COURT OF JUSTICE

Proceeding commenced at Chatham

NOTICE OF CONSTITUTIONAL QUESTION

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