

THE CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW NO. 2017 - 72

By-law to provide for the New Access Culvert over the Brown Drain for Belwood Poultry Limited (Roll No. 400-05300) based on the Drainage Report by Baird AE.

WHEREAS as request for repair and improvement of the Brown Drain was received under section 78 of the Drainage Act;

WHEREAS Council of the Corporation of the Town of Amherstburg felt it necessary to appoint an engineer for the purpose of preparation of an engineer's report for the repair and improvement under section 78 of the Drainage Act;

WHEREAS Council of the Corporation of the Town of Amherstburg has authorized Halliday Pearson, P. Eng., Baird AE to prepare a report and said engineer's report dated July 20, 2017, can be referenced as Schedule A, ~~located in the Clerk's Department agreement file #2017-72.~~ *attached to this by-law.*

WHEREAS \$39,600.00.00 is the amount to be contributed by the Town of Amherstburg for the drainage works;

AND WHEREAS the report was considered and adopted by Amherstburg Drainage Board at the meeting held on Tuesday, August 1st, 2017.

NOW THEREFORE the Council of the Corporation of the Town of Amherstburg hereby enacts as follows:

1. AUTHORIZATION

The attached report is adopted and the drainage works is authorized and shall be completed as specified in the report

2. BORROWING

The Corporation of the Town of Amherstburg may borrow on the credit of the Corporation the amount of \$39,600.00 being the amount necessary for the improvements of the drainage works.

This project being the New Access Culvert over the Brown Drain for Belwood Poultry Limited.

3. DEBENTURE(S)

The Corporation may issue debenture(s) for the amount borrowed less the total amount of:

- (a) Grants received under section 85 of the Drainage Act;
- (b) Monies paid as allowances;
- (c) Commuted payments made in respect of lands and roads assessed with the municipality;
- (d) Money paid under subsection 61(3) of the Drainage Act; and
- (e) Money assessed in and payable by another municipality.

4. PAYMENT

Such debenture(s) shall be made payable within 5 years from the date of the debenture(s) shall bear interest at a rate not higher than 1% more than the municipal lending rates as posted by The Town of Amherstburg's Bank's Prime Lending Rate on the date of sale of such debenture(s).

- (1) A special equal annual rate sufficient to redeem the principal and interest on

the debenture(s) shall be levied upon the lands and roads as shown in the schedule and shall be collected in the same manner and at the same as other taxes are collected in each year for 5 years after the passing of this by-law.

- (2) For paying the amount \$0.00 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 Town of Amherstburg in each year for 5 years after the passing of this by-law to be collected in the same manner and at the same time as other taxes collected.
- (3) All assessments of \$1000.00 or less are payable in the first year in which the assessments are imposed.

5. SCHEDULE OF ASSESSMENTS OF LANDS AND ROADS

Lot or Part Lot No.	Property Description			Estimated Assessment as per Report	Estimated Grants 33 1/3%	Equal Bi-Annual Rate to be Imposed
	Concession	Geographic Township	Parcel Roll No.			
Part of lot 4	3	Anderdon	400-05300	\$39,600.00	\$0.00	\$4,408.53
Total				\$39,600.00	\$0.00	\$4,408.53

Read a first and second time and provisionally adopted this 21th day of August, 2017.



 MAYOR – ALDO DICARLO




 CLERK – PAULA PARKER

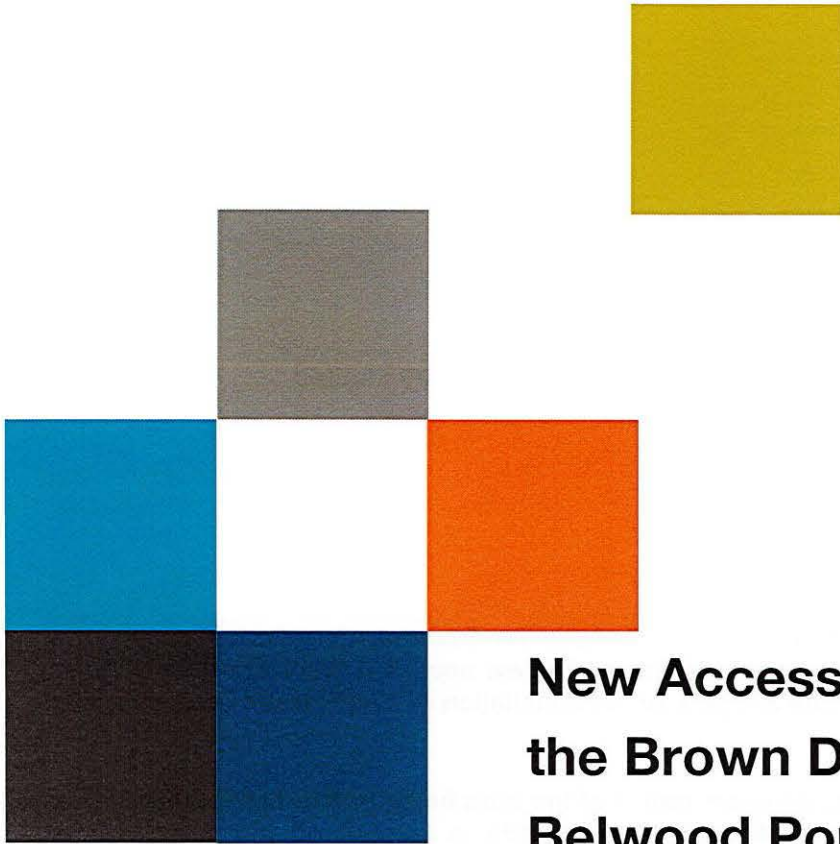
Read a third time and finally passed this 13 day of NOV, 2017.



 MAYOR – ALDO DICARLO



 CLERK – PAULA PARKER



New Access Culvert over the Brown Drain for Belwood Poultry Limited

Town of Amherstburg

July 20, 2017
(Final - Consideration)

Project No. 16-023
PWD-MD-15-017



July 20, 2017

The Town of Amherstburg
271 Sandwich Street South
Amherstburg, Ontario
N9V 2A5

Drainage Board Members

Subject: New Access Culvert on the Brown Drain for Belwood Poultry Limited
4272 Concession Road 4 North
In the Town of Amherstburg
Our File Reference 16-023



27 Princess St.
Unit 102
Leamington, ON
N8H 2X8
519.326.6161
1.844.842.9188

bairdAE.ca

1.0 Authorization

Pursuant to Section 78 of The Drainage Act, 1990 (the Act), the Town of Amherstburg received a request from Belwood Poultry Limited for the installation of a new access culvert. The firm of Baird AE was subsequently appointed to prepare a report for the installation of a new access culvert under the provisions of the Act.

As requested by Council, we have made an examination of the area being part of Lot 4, Concession 3 in the Town of Amherstburg (Roll No. 400-05300.) The site is located on the west side of Concession Road 4 N, approximately 0.32 kilometres north of Texas Road.

2.0 Current Drainage Report

C. G. Russell Armstrong, P.Eng, prepared the most recent report for the drain dated July 15, 1966. This report provided for the repair and improvement of the drain along its entire length. Additionally, there was a recommendation for sections of the drain to be relocated off the road and onto the adjoining lands. In the report six (6) culverts were suggested to be replaced with new corrugated pipes.

3.0 Purpose of Report

The purpose of this report is to provide for the construction of an access culvert for agricultural lands.

This report provides a description and estimated cost of the proposed work and a recommendation for distribution of the construction and incidental costs related to the work. This report further provides for the distribution of future maintenance costs. The assessments provided in this report are based upon the estimated cost of the work. These assessments will be pro-rated to the actual cost of the project upon completion of the works.

4.0 Site Meeting and Inspection

On November 27, 2015, correspondence between Baird AE staff and Max De Angelis occurred to discuss the proposed work. Mr. De Angelis acted as the client's project manager for a planned expansion to Belwood Poultry Limited's existing facilities.

Mr. De Angelis inquired about getting an early start on this project so that the culvert might be

installed prior to Christmas. Mr. Baird informed him that the Drainage Act process cannot be expedited. He requested that Mr. De Angelis provide the desired driveway width and preferred end treatment.

Mr. De Angelis informed Baird AE that there would be one truck in and one truck out and therefore no double traffic. He suggested a 6.0m wide (20') top width would be sufficient and asked that the most cost effective type of head wall be installed.

Mr. Baird stated that a gabion stone headwall is typically the most cost effective but does require a longer pipe length to satisfy the 1.5 to 1 slope requirement at each end.

5.0 Survey

A survey was undertaken at the desired location for the replacement access culvert. Elevations were recorded at the upstream and downstream culverts and a centreline profile of the drain bottom was taken to the downstream culvert.

The existing downstream culvert, approximately 310 metres to the south, is a concrete box culvert, 1.84m wide by 2.00m deep. The existing upstream culvert, approximately 60 metres to the north, is an 1800mm diameter CSP.

6.0 Recommendations

We would recommend the supply and placement of 15.2 metres of 1800mm diameter aluminized corrugated steel pipe, 3.5mm thick with 125mm x 25mm corrugations and sloped gabion stone end of pipe protection. This recommendation is consistent with the upstream design. The access over the culvert will have a driveable top width of 6.0 metres.

Hydraulic calculations indicate that this pipe is oversized; however, a survey of the upstream and downstream culverts reveal similarly sized structures. Therefore, we would recommend installation of the above described pipe.

We would further recommend that the above work be performed according to this report, the attached specifications and the accompanying drawings and that this work be carried out under the provisions of the Act.

7.0 Fisheries Issues

The Brown Drain is a Type 'F' drain. We would recommend the following measures be utilized to mitigate damage to the drain during construction:

- No work shall be undertaken between March 15 and June 30;
- All work shall be completed in the dry;
- Culverts shall be installed with a minimum of 10.0% embedment;
- All disturbed soils shall be stabilized upon completion of the work;
- Sediment control shall be implemented during construction;
- Contractor shall prevent entry of petroleum products, debris and deleterious substances into the water.

A review of the endangered species listed under the Endangered Species Act was carried out. No Species at Risk were identified in this area.

A copy of this report was provided to the Essex Region Conservation Authority (ERCA) for review

and comment. Correspondence included in Appendix A contains ERCA's acceptance of this proposal.

A self-assessment was completed to determine if Fisheries and Oceans Canada (DFO) would need to review this project. Based on the DFO Self-Assessment Website we have determined that the work laid out in this report does not require DFO review. However, standard measures for fish and habitat mitigation should be implemented.

A Sediment and Erosion Control Plan, Water Control Plan and Standard Mitigation Measures and Restoration are included in Appendix B.

8.0 Drawing and Specification

Attached to this report is Drawing No. 16-023, Sheets 1 and 2, which consist of plans showing the location of the proposed drainage works and the land affected by the work, together with the detail and cross sections of the recommended work. Specifications are included in this report showing the dimensions, grades, disposal of material, working areas for construction and future maintenance, and other particulars of the recommended work.

9.0 Working Area

The contractor shall utilize an 8.0 metre wide maintenance corridor on abutting agricultural lands measured westerly from the west top of bank as provided for under Section 63 of the Act.

10.0 Estimate of Cost

Our estimate of the total cost of this work, including all incidental expenses, is the sum of THIRTY-NINE THOUSAND, SIX HUNDRED----- dollars (**\$39,600.00**) made up as follows:

CONSTRUCTION

- | | |
|---|--------------------|
| 1) LS Price includes excavation and grading of existing drain side slopes; supply and installation of 15.2 metres of 1800mm diameter aluminized corrugated steel pipe, 3.5mm thick with 125mm x 25mm corrugations with sloped gabion stone end of pipe protection; placement and compaction of granular 'A' and 'B'; cleaning and grading of existing drain 6 metres upstream and downstream of new culvert; and supply and installation of silt fencing. | <u>\$26,475.00</u> |
|---|--------------------|

Total for Construction	\$26,475.00
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INCIDENTALS

Site Meeting and Survey	\$ 750.00
Design, report, estimate and specifications	\$ 6,500.00
Assistants and expenses and drafting	\$ 2,925.00
Attendance at Public Meetings	\$ 550.00

Tender Documents	\$	800.00
Construction Administration and Inspection	\$	800.00
ERCA Permit	\$	115.00
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Total for Incidentals	\$	12,440.00
Total for Construction (Brought Forward)	\$	26,475.00
Sub-Total for Incidentals and Construction	\$	38,915.00
H.S.T. Payable (1.76% Non-recoverable H.S.T.)	\$	685.00
	= = = = =	
TOTAL ESTIMATE	\$	39,600.00
	= = = = =	

11.0 Assessment

Each parcel is guaranteed one access over a Municipal Drain. Should a parcel have more than one culvert, the costs associated with cleaning, maintenance or replacement of the additional culvert shall be assessed 100% to the benefitting lands. In this case, the proposed culvert will be a secondary access to the property. Therefore, the construction and incidental costs associated with the proposed access culvert shall be assessed 100% as Special Benefit to the adjoining lands.

Therefore, we would recommend that all costs associated with construction of the access culvert described in this report be assessed 100% as Special Benefit to the lands owned by Belwood Poultry Limited, Roll No. 400-05300, as shown in the attached Schedule of Assessment.

12.0 Maintenance

We would recommend that all costs associated with future maintenance of the access culvert described in this report be assessed 100% as benefit to the lands owned by Belwood Poultry Limited, Roll No. 400-05300, as this culvert provides secondary access to this parcel.

13.0 Grant

According to the Agricultural Drainage Infrastructure Program (ADIP) section 2.3i(A):

- i. Farm and access crossings are eligible for grant, with the following exceptions:
 - (A) For every drain, every agricultural property is entitled to one drain crossing. Any additional crossing on this property will not be eligible for grant.

Therefore, a Provincial grant is not available for this project.

BAIRD AE
27 PRINCESS STREET, SUITE 102
LEAMINGTON, ONTARIO
N8H 2X8

Halliday Pearson
Halliday P. Pearson, P. Eng.



**CONSTRUCTION SCHEDULE OF ASSESSMENT
 FOR THE NEW ACCESS CULVERT OVER THE
 BROWN DRAIN FOR BELWOOD POULTRY LIMITED
 IN THE TOWN OF AMHERSTBURG
 PROJECT REFERENCE 16-023
 PWD-MD-15-017**

Page 1 of 1
 July 11, 2017

PRIVATELY OWNED AGRICULTURAL LANDS (GRANTABLE):

Roll No.	Con.	Description	Area Owned (Acres)	(Ha.)	Area Affected (Acres)	(Ha.)	Owner	Special Benefit	Benefit	Outlet	Total Assessment
400-05300	3	N Pt Lt 4	42.96	17.39	3.95	1.60	Belwood Poultry Limited	\$ 39,600.00	\$ -	\$ -	\$ 39,600.00
Total on Privately Owned Agricultural Lands (Grantable)								\$ 39,600.00	\$ -	\$ -	\$ 39,600.00
TOTAL ASSESSMENT								\$ 39,600.00	\$ -	\$ -	\$ 39,600.00



Appendix A
Essex Region Conservation Authority (ERCA) Correspondence

Thursday, July 20, 2017 at 8:51:02 AM Eastern Daylight Time

Subject: RE: Brown's Drain Access Bridge
Date: Thursday, June 1, 2017 at 2:12:40 PM Eastern Daylight Time
From: Cynthia Casagrande
To: Shane McVitty, 'halliday@bairdae.ca'
Attachments: image001.gif, image002.gif

Dear Shane and Halliday:

I apologize for not getting a response to you sooner regarding this file.

We have had an opportunity to review the revised information regarding the proposed culvert over the Brown Drain, Baird AE Project No. 15-109. We find this information acceptable. We will need a copy of the Final Drainage Report, a completed ERCA application for permit form, and the application for permit fee of \$150.00 for this project to proceed. Please forward this information and/or alternative direction at your earliest convenience.

If further information or clarification is required, please do not hesitate to contact this office.

Yours truly,

Cynthia Casagrande
Regulations Coordinator
Essex Region Conservation Authority
360 Fairview Avenue West, Suite 311
Essex ON N8M 1Y6
(519) 776-5209, Ext. 349

From: Shane McVitty [mailto:smcvitty@amherstburg.ca]
Sent: Thursday, June 1, 2017 8:47 AM
To: 'halliday@bairdae.ca' <halliday@bairdae.ca>; Cynthia Casagrande <CCasagrande@erca.org>
Subject: Brown's Drain Access Bridge

Good Morning,

It has been quite some time since we've heard back from the Conservation Authority regarding the status of the review on the proposed access culvert on the Brown Drain for Belwood Poultry. A review previous correspondence indicates that comments were to be provided back in March. Are we any further along with this project? The Town would like to see this report completed so that we can begin the usual consideration process.

Thanks,
Shane

Shane McVitty
Drainage Superintendent / Engineering Coordinator

512 Sandwich St. South, Amherstburg, ON, N9V 3R2
Tel: 519-736-3664 Fax: 519-736-7080 TTY: 519-736-9860

Appendix B
Sediment and Erosion Control Plan
Water Control Plan
Standard Mitigation Measures and Restoration

Sediment and Erosion Control Plan, Water Control Plan and Standard Mitigation Measures and Restoration

Sediment and Erosion Control Plan

The proposed works may expose soils and present the possibility of sediment transport into the watercourse from the excavated materials. The following mitigation measures and response plan shall be followed during construction:

- Silt fencing shall be installed at the downstream end of the construction zone;
- All accumulated sediment and excavated material shall be disposed of offsite.
- All erosion and sediment control measures shall be regularly maintained for the duration of the project;
- Excavated material, where specified to be cast onto adjoin lands, shall be well and evenly spread over a sufficient area so that no portion of the excavated earth is more than 100mm in depth and kept at least 1.2 metres clear of the top of the drain with care being taken not fill existing tiles, ditches, furrow or drain with said material. The excavated material shall be free from rocks, boulders, stumps and other similar material and if encountered, shall be hauled away and disposed of offsite.
- Should contamination occur, construction will cease and additional measures undertaken to prevent further contamination.

Water Control Plan

In order to undertake the proposed works, the flow of water within the drain must be controlled. The following water control plan shall be followed:

- The proposed works shall be completed when the drain is dry; however, should water be present, small berms shall be constructed immediately upstream and downstream of the working zone;
- Berms shall be constructed after fish salvage has been undertaken, if required;
- Berms shall be constructed of native or imported clay firmly compacted and keyed into the drain bottom and sideslopes to mitigate water leakage;
- Gabion stone, 300 mm thick laid on Terrafix 270-R filter fabric, shall be placed upon the berms;
- Each constructed berm shall be no more than 300mm above the existing water level;
- Water will be diverted through pumping and will be returned to the drain downstream of the construction zone;
- Should flooding occur during a large rain event, water may overtop the berms. The berms shall be restored and any water within the construction zone shall be pumped downstream prior to continuing with construction;
- The berms shall be removed and the sideslopes and channels restored upon completion of the work.

Standard Mitigation Measures and Restoration

The following general guidelines shall be followed during the construction period:

- Foot and vehicular traffic shall be restricted to the working zone;
- Existing streambed depths shall be maintained;
- All activities shall be undertaken away from the water and controlled to prevent entry to deleterious substances into the water;
- Restoration shall be undertaken using good quality black organic topsoil and good quality grass seed;
- The accompanying design includes restoration details for grades, elevations and groundcover;
- The site shall be restored to like or better condition to what existed prior to commencing the works.

SPECIFICATIONS
NEW ACCESS CULVERT
BROWN DRAIN
IN THE
TOWN OF AMHERSTBURG
PROJECT REFERENCE 16-023

1.0 PIPE MATERIAL

The Contractor shall supply and install a new 1800mm aluminized corrugated steel pipe, 3.5mm thick with 125mm x 25mm corrugations being 15.2 metres long.

2.0 WORKING AREA

The contractor shall utilize an 8.0 metre wide maintenance corridor on abutting agricultural lands measured westerly from the west top of bank as provided for under Section 63 of the Act.

3.0 DISPOSAL OF EXCAVATED MATERIAL

The Contractor shall dispose of all surplus excavated material at a site to be determined by him and at his expense.

4.0 LOCATION AND ELEVATION OF CULVERT

The location and elevations of the new culvert shall be according to the drawings, 16-023.

5.0 PLACEMENT OF CULVERT

- a) The Contractor shall excavate all vegetation, topsoil and existing granular material from the bank slopes and bottom of the existing drain, complete along with hauling materials off site. The required work includes, supplying and installing a new 15.2m long aluminized corrugated steel pipe with sloped gabion stone (300 mm thick) end of pipe protection.
- b) The Contractor shall carefully unload, handle and place the specified pipe so as not to damage. Damaged material or distorted from improper installation will not be accepted.
- c) The Contractor shall perform the excavation, placement of pipe and backfill in a dry condition and shall provide all required pumps and/or equipment to enable the work to proceed in the dry.

6.0 PIPE BACKFILL

After the arch has been set, the Contractor shall backfill the pipe with granular "B" and "A" material, O.P.S.S. Spec 1010 according to the attached plan. The backfill material shall be carefully placed so damage to or movement of the culvert is avoided and backfill materials shall be placed in layers not exceeding 300 mm in thickness, loose measurement. Each layer shall be thoroughly compacted in place to a Standard Proctor Density of 98% by means of mechanical compactors. The equipment and method of compacting the backfill material shall be to the full satisfaction of the Commissioner in charge.

7.0 QUARRIED ROCK END PROTECTION

Where specified and after the pipe has been set and backfilled the Contractor shall install quarried rock erosion protection at each end of the pipe.

The backfill over the ends of the pipe shall be set on a slope of 1½ metres horizontal to 1 metre vertical from the bottom of the pipe to the top of each side slope and between both side slopes. The top 300 mm in thickness of the backfill over the ends of the pipe shall be quarried rock. The quarried rock shall be placed

7.0 QUARRIED ROCK END PROTECTION - Continued

on a slope of 1½ metres horizontal to 1 metre vertical from the bottom of the pipe to the top of each side slope of the drain and between both side slopes. The quarried rock shall have a minimum dimension of 100 mm and a maximum dimension of 225 mm. Prior to placing quarried rock end protection over the granular material, the Contractor shall lay a non-woven geotextile filter fabric equal to a "Terrafix 270-R" or approved equal. The geotextile filter fabric shall extend from the bottom of the pipe to the top of each side slope of the drain and between both side slopes of the drain. The Contractor shall take extreme care not to damage the geotextile filter fabric when placing the quarried rock on top of the filter fabric. The geotextile filter fabric and quarried rock shall be placed to the complete satisfaction of the Town Drainage Superintendent.

8.0 ALIGNMENT

The alignment of the enclosure throughout shall be to the full satisfaction of the Commissioner in charge. The whole of the work shall be done in a neat, thorough and workmanlike manner to the full satisfaction of the Commissioner in charge.

9.0 LOCATION OF STRUCTURES, ETC.

The Contractor shall satisfy himself as to the exact location, nature and extent of any existing structure, utility or other object which he may encounter during the course of the work. The Contractor shall indemnify and save harmless, the Town and the Engineer for any damages which he may cause or sustain during the progress of the work. He shall not hold the Town or the Engineer liable for any legal action arising out of any claims brought about by such damage caused by him.

10.0 DAMAGE TO TRAVELLED PORTION OF MUNICIPAL ROAD

The Contractor will be responsible for any damage caused by him to any portion of the municipal road system, especially to the travelled portion. When excavation work is being carried out and the excavation equipment is placed on the travelled portion of a road, the travelled portion shall be protected by having the excavation equipment placed on satisfactory timber planks or timber pads. If any parts of the travelled portion of the road is damaged by the Contractor, the Municipality shall have the right to have the necessary repair work done by its employees and the cost of all labour and materials used to carry out the repair work shall be deducted from the Contractor's contract and credited to the Municipality.

11.0 CONSTRUCTION SAFETY

The Contractor shall comply with all the requirements of the Occupational Health and Safety Act, 1990 and the regulations passed in connection therewith, as administered by the Ontario Ministry of Labour and all subsequent amendments of the said Act.

The Contractor shall exercise all possible precaution against injury to persons or property resulting from his work. The Contractor shall leave no trenches, pits, holes or excavations uncovered, without providing sufficient protection at all times. The Contractor shall install, erect and provide barricades, signs, traffic cones, flashers, lights, plates, warning and other devices, materials and personnel as may be required and at his own expense in order to provide for the safe passage and control of traffic and to ensure public safety. All traffic control shall be in accordance with the latest standards of the Ministry of Transportation.

12.0 CERTIFICATE OF CLEARANCE

The Contractor will be required to submit to the Municipality a Certificate of Good Standing from the Workplace Safety & Insurance Board prior to the commencement of the work and the Contractor will be required to submit to the Municipality, a Certificate of Clearance for the project from the Workplace Safety & Insurance Board before final payment is made to the Contractor.

13.0 PROGRESS ORDERS

Monthly progress orders for payment shall be furnished to the Contractor by the Commissioner in charge; said orders shall not be for more than 90% of the value of the work done and the materials furnished on the site. The paying of the full 90% does not imply that any portion of the work has been accepted. The remaining 10% will be paid 45 days after the final acceptance and completion of the work.

14.0 CLEANING UP

The Contractor shall leave the whole of the site of the work in a neat, thorough and workmanlike appearance to the full satisfaction of the Commissioner. He shall haul away any excess earth from the site. He shall haul to the site, sufficient earth to fill any depressions caused by his work at his own expense. The site shall be left as close as possible in the same condition as it was prior to the commencement of the work.

15.0 MEASUREMENT AND PAYMENT

Payment for the work shall be on a unit price basis unless otherwise indicated and shall include all the work shown on the accompanying drawings and specifications.

16.0 MAINTAINING FLOW

The Contractor shall maintain the flow of any drainage works encountered in the progress of the work and at no expense to the Owner. The Contractor shall obtain written approval from the Commissioner in charge to stop up any drain and if necessary provide pumping equipment, build necessary by-passes, etc. at no expense to the Owner.

17.0 COMMISSIONER

Where the word "Commissioner" is used in this specification, it shall mean the person or persons appointed by the Council of the Municipality having jurisdiction, to superintend the work. (Drainage superintendent or the engineer/inspector.)

The Commissioner will be permitted to make minor variations in the work so long as these variations will result in a more satisfactory project or a more economical one. These variations, however, must not be such as to change the intent of the work performed nor are they to reduce the standard of quality.

18.0 NOTIFICATION OF WORK

Prior to commencing any work of installing the extension of the culvert or removing any existing structures, the Contractor shall inform the Town Drainage Superintendent of his intent to commence work at least 48 hours prior to commencing any work. The Owner or Contractor shall endeavour to install and complete the new structure without delay once he has commenced the work. If for any reason the work does not proceed continuously then the Owner or Contractor shall notify the Drainage Superintendent in advance of any backfilling operation or headwall construction so that he may schedule inspection of same. The completed work must be done to the satisfaction of the Town Drainage Superintendent and be approved by him.

19.0 MAINTENANCE

The Contractor shall repair and make good at his expense any damages or faults in the work that may appear within one year after its completion (as evidenced by the final inspection report), as the result of imperfect or defective work done or materials furnished. Nothing herein contained shall be construed as any way restricting or limiting the liability of the Contractor under the appropriate laws under which the work is being done.

SPECIFICATIONS
ENVIRONMENTAL PROTECTION SPECIAL PROVISIONS
FOR THE
BROWN DRAIN
IN THE
TOWN OF AMHERSTBURG
PROJECT REFERENCE 16-023

1.0 GENERAL

These Environmental Protection Special Provisions shall apply and form part of this Contract. All costs associated to conforming with these Special Provisions shall be included in the Tender prices bid.

2.0 FIRES

Fires and burning of rubbish on site will be permitted only with special approval from the Town.

3.0 DISPOSAL OF WASTES

The Contractor shall not bury rubbish and waste materials on site unless approved by the Engineer and all applicable approving authorities. The site shall be maintained free of accumulated waste and rubbish. All waste materials should be disposed of in a legal manner at a site approved by all local approving authorities and the Engineer.

The Contractor shall not allow deleterious substances, waste or volatile materials such as mineral spirits, or paint thinner, to enter into waterways, storm or sanitary sewers.

The disposal of dredge material where applicable shall be in accordance with the above.

4.0 POLLUTION CONTROL

The Contractor shall maintain under this Contract temporary erosion, sediment and pollution control features installed. The Contractor shall control emissions from equipment and plant to local authorities emission requirements. The Contractor shall not cause excessive turbidity when performing in-water work. The Contractor shall not allow any debris, fill or other foreign matter to enter into the waterway. The Contractor shall remove from the waterway, all extraneous materials resulting from in-water work.

The Contractor shall abide by local noise By-Laws for the duration of the Contract.

Spills of deleterious substances into waterways and on land shall be immediately contained by the Contractor and the Contractor shall cleanup in accordance with Provincial regulatory requirements. All spills shall be reported to the Ontario Spills Action Centre (1-800-268-6060), local authorities having jurisdiction and the Engineer.

To reduce the risk of fuel entering the waterway, refuelling of machinery must take place a safe distance from the waterway. The Contractor shall note that the Engineer or the Owner takes no responsibility for spills, this shall be the sole responsibility of the Contractor.

5.0 WHMIS

The Contractor shall comply with the requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage and disposal of hazardous materials and regarding labelling and the provision of material safety data sheets acceptable to Labour Canada.

6.0 DRAINAGE

The Contractor shall not pump water containing suspended materials into waterways, sewers or drainage systems. The Contractor shall be solely responsible for the control, disposal or runoff of water containing suspended materials or other harmful substances in accordance with these specifications, and local authority requirements. The Contractor shall provide temporary drainage and pumping as necessary to keep excavations and site free from water. The Contractor shall install and maintain sediment control devices as indicated on the Contract Drawing and as directed by the Engineer.

7.0 PROTECTION OF VEGETATION

The Contractor shall exercise the utmost caution to ensure that existing trees and plants on-site and on adjacent properties are not damaged or disturbed unless noted otherwise in the Removals Special Provisions of this Contract. The Contractor shall restrict tree removal to areas indicated on the Contract Drawings and/or designated on-site. No trees or shrubs shall be removed without the approval of the Engineer.

8.0 DUST CONTROL

The Contractor will be solely responsible for controlling dust nuisance resulting from his operations, both on the site and within adjacent right-of-way's.

Water and calcium chloride shall be applied to areas on or adjacent to the site as authorized by the Engineer as being necessary and unavoidable for the prevention of dust nuisance or hazard to the public. No payment will be made for dust control unless otherwise specified in the Special Provisions.

9.0 RESTRICTIONS FOR IN-WATER WORKS

The Contractor shall only perform in-water works during times when conditions permit reasonable production rates to be achieved. The Contractor shall be required to adopt good housekeeping practices that minimize disturbance to the site and the adjacent waterway.

The Contractor shall note that this Project is subject to approval from the Essex Region Conservation Authority and as such, any possible turbidity caused by the construction of the shore protection works is of key importance.

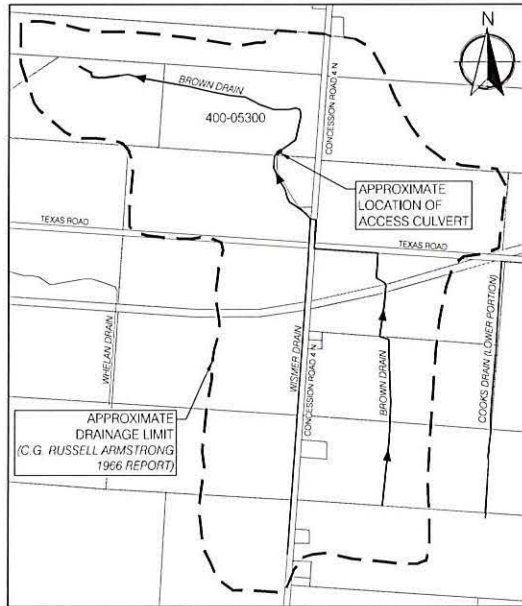
The Contractor shall minimize the turbidity (sedimentation) produced by any in-water works construction or operations. The Contractor will be ordered to cease operations if, in the opinion of the Engineer or authorities having jurisdiction, the in-water work is producing unacceptable amounts of turbidity in the waterway. Based on this, the Contractor shall either adjust his operation(s) to produce lower turbidity levels, wait for more favourable conditions before operations will be allowed to continue, or undertake approved mitigating measures (e.g. sediment control, etc.). All costs associated with the above will be the sole responsibility of the Contractor, and no claims for extras or delays will be considered.

10.0 FISH HABITAT

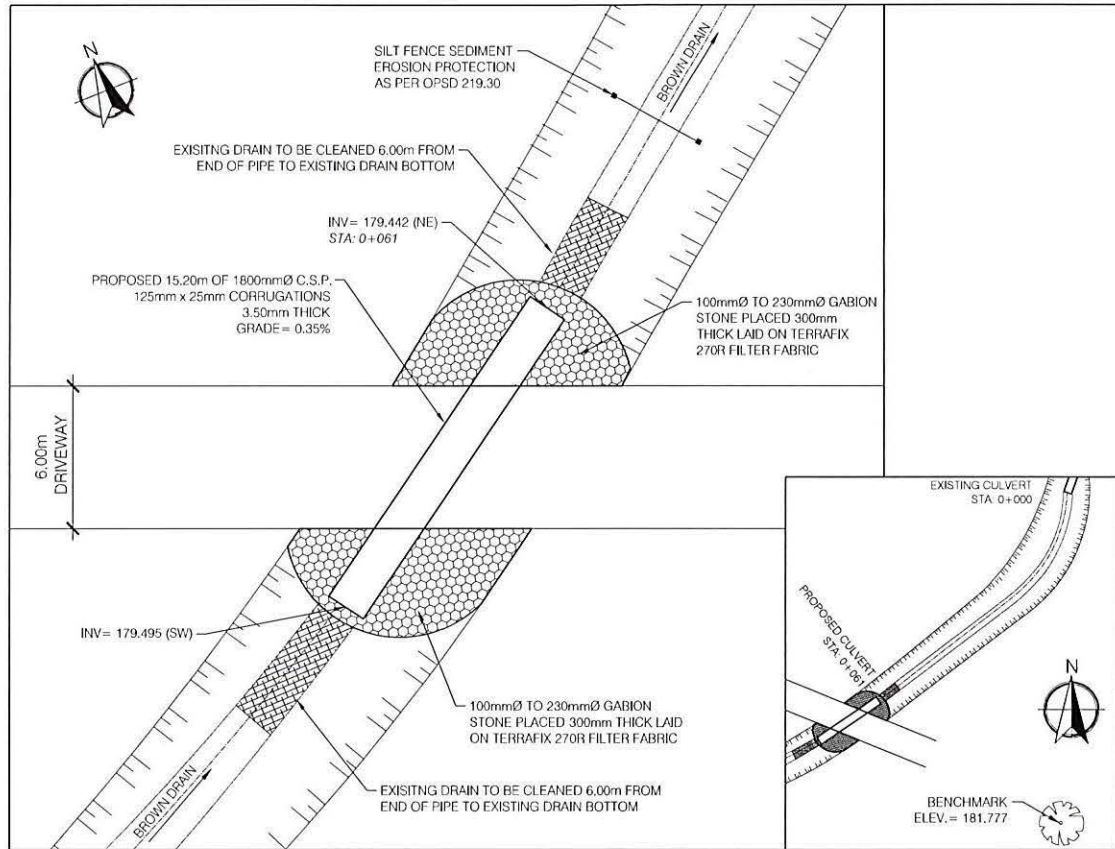
No work shall be undertaken when there is likelihood of adverse effects on fish spawning or fish habitat in downstream waters.



KEY PLAN
SCALE: N.T.S.



DRAINAGE AREA
SCALE: N.T.S.



PROPOSED PLAN VIEW
SCALE: 1:200

BENCHMARK:

NAIL IN TREE - LOCATED APPROXIMATELY 50.0m
SOUTHEAST OF NEW CULVERT
ELEVATION

181.777



27 PRINCESS STREET, SUITE #102
LEAMINGTON, ONTARIO
N9H 2X8

1000 - 267 PELISSIER STREET,
WINDSOR, ONTARIO
N9A 4K4

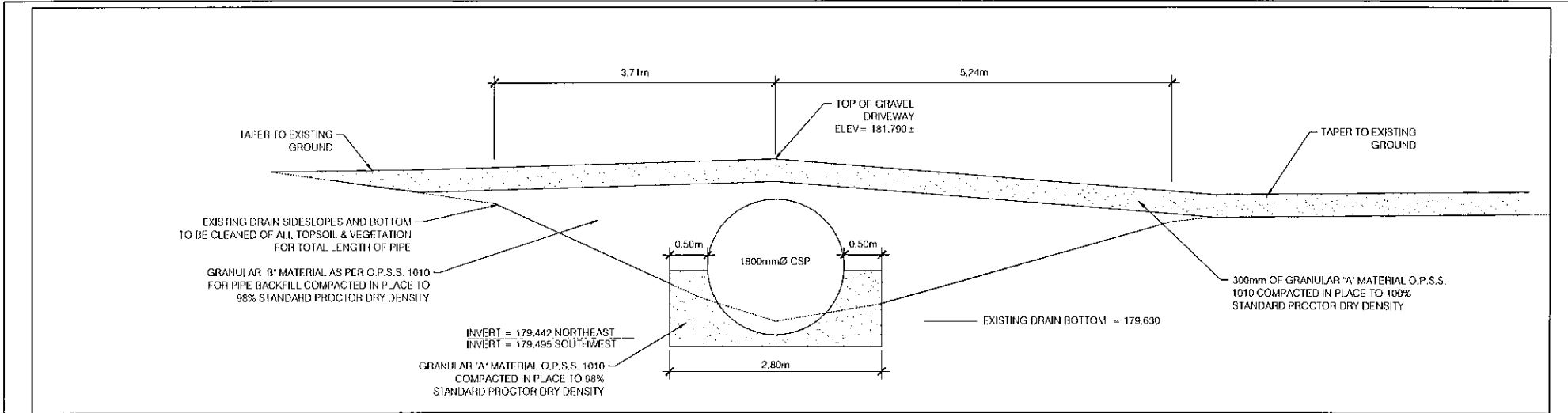
PROJECT TITLE:
**NEW ACCESS CULVERT OVER THE BROWN DRAIN FOR
BELWOOD POULTRY LIMITED**
4272 CONCESSION ROAD 4 NORTH, AMHERSTBURG ON

SHEET TITLE:
TITLE PAGE & KEY PLAN

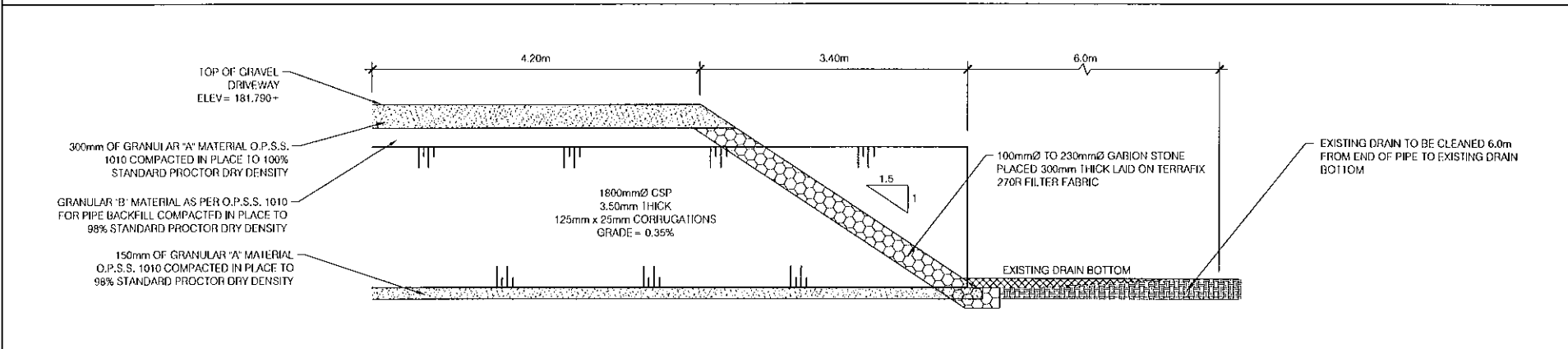


H. P. Pearson
HAYLIDY P. PEARSON, P.ENG.

DRAWN BY: D.B.	SCALE: AS NOTED	DATE: JULY 20, 2017
CHECKD BY: H.P.P.	SHEET No.: 1 OF 2	PROJECT No.: 16-023



CULVERT END SECTION
SCALE 1:50



LONGITUDINAL SECTION
SCALE 1:50

PROJECT TITLE NEW ACCESS CULVERT OVER THE BROWN DRAIN FOR BELWOOD POULTRY LIMITED				BENCH MARK ELEVATION 181.777		BENCH MARK LOCATION NAIL IN TREE LOCATED 50.0m SOUTHEAST OF NEW CULVERT				
4272 CONCESSION ROAD 4 NORTH, AMHERSTBURG ON				CULVERT SIZE	PIPE LENGTH	PIPE GAUGE	CORRUGATIONS	CULVERT TYPE	PIPE INVERT ELEVATIONS	
SHEET TITLE CROSS SECTIONS	DRAWN BY D.B.	SCALE AS NOTED	DATE JULY 20, 2017	1800mm	15.20m	3.50mm	125mm x 25mm	ALUMINIZED CORRUGATED STEEL	UPSTREAM END	179.495 (SW)
	CHECKED BY H.P.P.	SHEET No. 2 OF 2	PROJECT No. 16-023						DOWNSTREAM END	179.442 (NE)