

Corporation of the Town of Amherstburg

By-Law No. 1998 - 25

**A by-law to provide for the construction
of a culvert on the 2nd Concession Drain**

Whereas Carlo Pacitti, owner of Part Lot 9, Concession 2, Registered Plan 12R-5257, Part 2, has requested the installation of a new access bridge over the 2nd Concession Drain.

And Whereas Carlo Pacitti will be responsible for one hundred (100%) percent of the costs of the work plus engineering costs.

And Whereas the Council of the Corporation of the Town of Amherstburg has authorized LaFontaine, Cowie, Buratto & Associates Limited to prepare a report and said report dated January 26th, 1998, is attached hereto and forms part of this by-law.

And Whereas Council is of the opinion that the said access is desirable.

Now therefore the Council of the Corporation of the Town of Amherstburg hereby enacts as follows:-

1. **That** the report of LaFontaine, Cowie, Buratto & Associates Limited dated January 26th, 1998, is hereby adopted and the drainage works therein shall be completed in accordance therewith.
2. **That** this by-law comes into force on the final passing thereof.

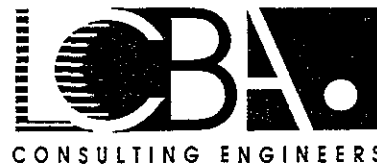
Read a first and second time this 23rd day of March, 1998.

Wayne Hurst
Mayor
Delacour
Clerk

Read a third time and finally passed this 22nd day of June 1998.

Wayne Hurst
Mayor
Delacour
Clerk

1998 01 26
Our Ref. No. AN297



LA FONTAINE, COWIE, BURATTO
& ASSOCIATES LIMITED

3260 Devon Drive, Windsor, Ontario N8X 4L4
Tel: (519) 966-2250 Fax: (519) 966-5523

Town of Amherstburg
P.O. Box 159
271 Sandwich Street South
AMHERSTBURG, Ontario
N9V 2Z3

**Re: Culvert on 2nd Concession Drain
to Access Part 2, R.P. 12R-5257, Part of F.L. 9
Concession 2 in the Township of Anderdon**

Mayor Hurst and Members of Council:

As instructed by Tony DiCiocco, Drainage Superintendent, on January 12, 1998, we submit a Drainage Report for the installation of a culvert on the above noted property.

The owner Carlo Pacitti has requested a 30 foot (9.14 metre) culvert with concrete filled jute bag headwalls. He also requested that he have the option of installing concrete headwalls (precast or cast in place) depending on costs. The proposed culvert is to be located approximately 80.8 metres north of the line between Farm Lots 8 and 9, Concession 2.

The drain was last cleaned in 1979 based on a report prepared by LCBA. We visited the site on January 12, 1998 to review the proposed location and have no concerns with the location selected.

1. ESTIMATED COST

Our estimate of the cost of the work is **\$5,100.00** made up as follows:

A. Construction Cost

- | | | |
|-----|--|----------------|
| 1. | 9.1 metres of 900 mm dia. galvanized steel pipe, supplied and placed including granular bedding and backfill @ \$250/m | \$2,275 |
| *2. | Concrete filled jute bag headwalls @ \$1,000 ea. | <u>\$2,000</u> |
| | Total for Construction | \$4,275 |

* The owner also has the option to install precast or poured in place concrete headwalls in place of the concrete jute bag headwalls. These headwalls are estimated at \$1,500 each. They are not included in the construction cost.

Cont'd . . . \2

B. Incidental Expenses

(a) Plans, estimate, report and assessment	\$ 700
(b) Miscellaneous expenses	\$ 125
Total for Incidentals	\$ 825
TOTAL ESTIMATE	\$5,100

2. RECOMMENDATION

We recommend that a 900 mm dia. galvanized corrugated steel pipe approximately 9.1 m long with concrete filled jute bag headwalls be constructed in the 2nd Concession Drain to enclose the drain and provide access to the above property. At the owners option, they may install concrete headwalls, either precast or cast in place in accordance with the attached OPS detail.

3. ASSESSMENT

We further recommend that all works associated with the construction of the culvert in the 2nd Concession Drain be assessed directly to the owner of the lands immediately east of the culvert.

4. FUTURE MAINTENANCE

We also recommend that the new culvert be kept up and maintained at the expense of lands and roads in proportion to the amounts shown in the Schedule of Assessment for the 2nd Concession Drain contained in the report dated August 17, 1979 by Mr. Ed LaFontaine of LCBA Ltd.

Yours very truly,

LaFONTAINE, COWIE, BURATTO
& ASSOCIATES LIMITED

per: *Clarence Jubenville*
C. R. G. Jubenville, P. Eng.

CRGJ/jl
Encls.



SPECIFICATIONS FOR THE CULVERT

ON 2ND CONCESSION DRAIN TO ACCESS PART 2, 12R-5257

PART OF LOT 10, CONCESSION 2

IN THE TOWNSHIP OF ANDERDON

1. General

The work consists of installing a CSP culvert in the 2nd Concession Drain to enclose part of the drain and provide access over this same drain to farm land being Part 2, 12R-5257, Part of Lot 10, Concession 2.

The work includes the construction of a 900 mm diameter CSP culvert (2.0 mm thick) in the 2nd Concession Drain from Sta. 20+59.3 to Sta. 20+68.4 including concrete filled jute bag headwalls.

The whole of the works will be constructed in accordance with Figure 1 attached and specifications described herein.

2. Excavation

The drain shall be excavated to the lines, levels and grades to accept the proposed CSP culvert to the elevations shown on Figure 1 attached. The north invert at Sta. 20+59.3 is 177.99. The south invert at Sta. 20+68.4 is 178.07.

Excavated earth material shall be spread and levelled on the lands east of the drain at this same location.

3. CSP Culvert and Headwalls

The CSP culvert shall be plain galvanized with a diameter of 900 mm. The CSP shall have a minimum thickness of 2.0 mm and be 9.1 metres in length. Headwalls shall be constructed with concrete filled jute bags as illustrated on the attached detail CD-223C.

At the owner's option, headwalls may be poured concrete, either precast or cast in place as per the attached detail OPSD 804.02. Shop drawings of precast headwalls should be submitted to the Township prior to installation.

4. Pipe Bedding and Backfill Material

The CSP culvert shall be placed on a bedding of not less than 150 mm of Granular "A" compacted to 95% Standard Proctor Density and shaped to suit the bottom contour of the pipe. Pipe bedding material shall extend from 150 mm (min.) below bottom of the CSP to the springline.

Cover and backfill material shall be granular material mechanically compacted to 100% Standard Proctor Density placed in 300 mm lifts.

5. Access to Work

Access to the work shall be from 2nd Concession Road.

6. Clean Up and Restoration

The whole of the works shall be satisfactorily cleaned up during the course of construction and no portion shall be left in an untidy or incomplete state.

Where the Contractor disturbs any existing lawns or landscaped areas, he shall restore them to the same condition which existed prior to construction. This shall include the replacement and levelling of topsoil, hand raking and supplying of sod. Any ornamental trees, shrub, bush or feature of landscaping damaged or destroyed by the Contractor shall be replaced by him at his expense.

All driveways, foot paths or other means of access to properties shall be fully restored to their former condition at the Contractor's expense.

Before issuing final approval, the Engineer will inspect the works and ensure that all private property has been restored to its former condition. In the event the Contractor fails to satisfactorily clean up any portion of the work, the Engineer may order such clean up be carried out by others and the cost will be charged to the Contractor.

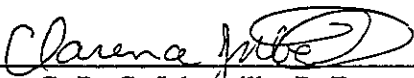
7. Private and Public Utilities

The Contractor shall preserve and protect all existing private and public utilities located on public road allowance or on private property. It will be his obligation to contact any utility to determine the actual location of its plant and to make arrangements to protect same in accordance with the requirements of the Utility Company.

8. Standard Specifications

The covered drains shall be constructed to Ontario Provincial Standard Specifications (OPSS) and Drawings (OPSD) and the specifications herein.

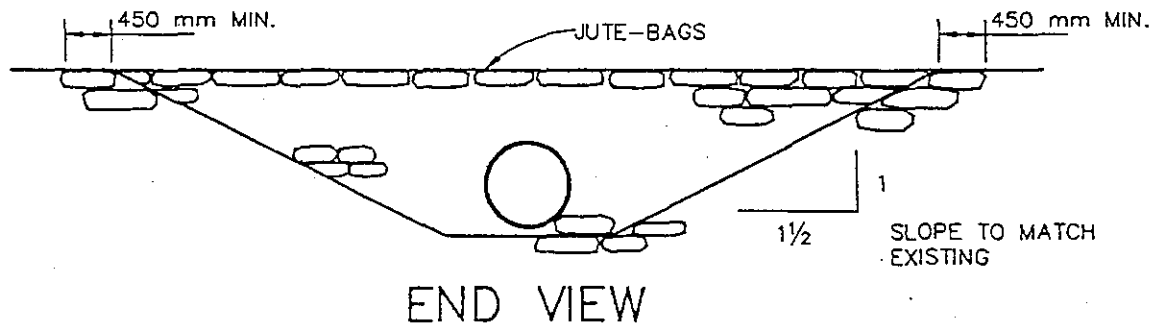
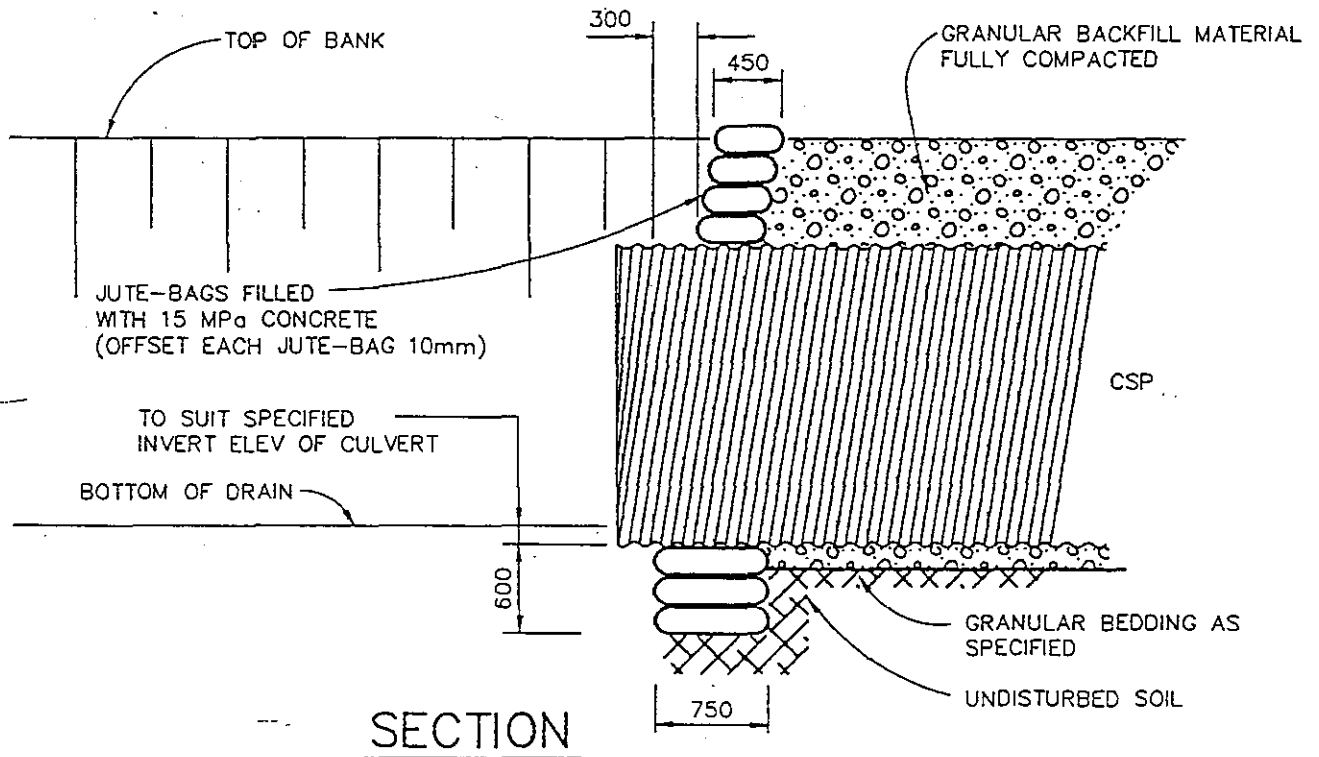
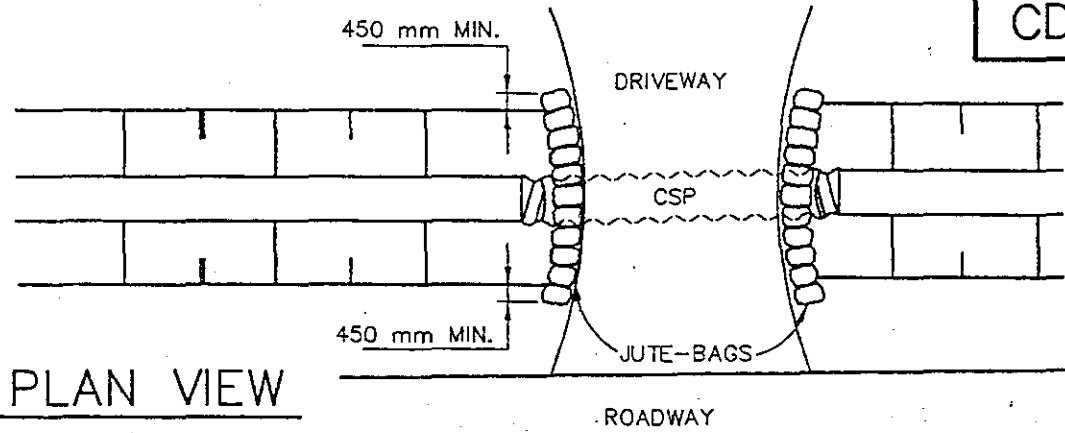
LaFONTAINE, COWIE, BURATTO
& ASSOCIATES LIMITED

per: 
C. R. G. Juberille, P. Eng.

CRGJ/jl

1998 01 26

CD-223C

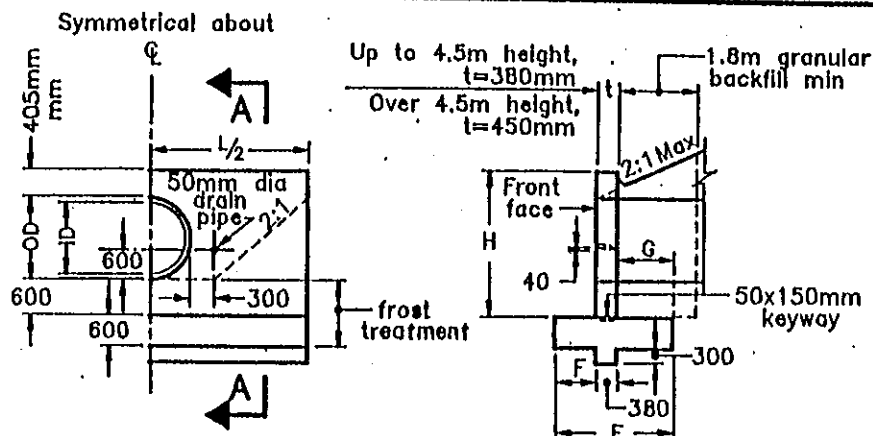


LaFONTAINE, COWIE, BURATTO & ASSOCIATES LIMITED

TYPICAL CONCRETE JUTE-BAG HEADWALL DETAILS

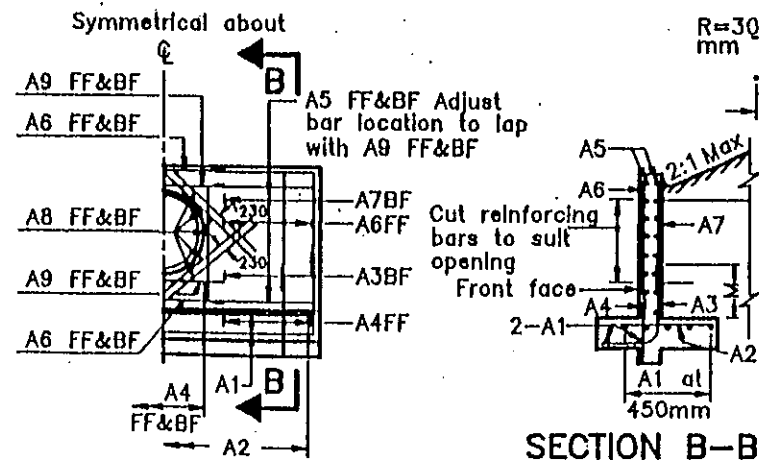
SCALE: N.T.S.
 DRAWN: K.F.F.

DATE: AUGUST 19, 1996
 APPROVED:



HALF FRONT ELEVATION DIMENSIONS

SECTION A-A



HALF FRONT ELEVATION DIMENSIONS

SECTION B-B

LEGEND:

FF=Front face
 BF=Back face
 * -To be shown on Table II

NOTES:

- A Class of concrete: 20MPa.
- B Reinforcing bars to be hard grade 400MPa yield and to have a 75mm cover
- C 50mm dia drain pipes, non-metallic type shall be placed so that the top of the weeper on the inside and the bottom of the weeper on the outside are level.
- D If steel grate is required, refer to OPSD-804.05.
- E Variables from table must be converted into metres before insertion into formulae.
- F All dimensions are in millimetres or metres unless otherwise shown.

Concrete Pipe ID	800	975	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2875	3000	3200
Concrete Pipe OD	1128	1200	1300	1475	1625	1800	2000	2175	2330	2525	2700	2875	3025	3250	3425	3600	3775
To be determined by Engineer and shown on Table I																	
L- Length of Conc. Headwall	2134	2288	2438	2591	2743	2896	3048	3200	3505	3658	3810	3962	4115	4267	4572	4724	4877
H- Height of Conc. Headwall	1800	1727	1727	1859	1859	2007	2007	2134	2288	2288	2413	2413	2565	2565	2692	2724	2794
F	406	457	457	509	509	559	559	610	660	660	711	711	762	762	813	864	864
G	613	669	669	665	665	1087	1087	1143	1243	1243	1321	1321	1421	1421	1499	1577	1656
M	539	640	640	1018	1018	1092	1092	1270	1348	1348	1422	1422	1528	1528	1600	1658	1716
A1	Size	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	Length	A1	Length = 0.150m														
	No. Req'd	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
A2	Size	15	15	15	20	20	20	20	20	20	20	20	20	20	20	20	20
	Spacing	457	457	457	457	457	408	408	457	308	308	278	278	305	305	278	300
	Length	1143	1218	1218	1387	1387	1490	1490	1702	1603	1603	1800	1800	2159	2159	2335	2413
	No. Req'd	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
A3	Size	18	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	Spacing	229	229	229	229	229	203	203	229	278	278	278	278	278	278	278	278
	Length	1800	2007	2007	2134	2134	2281	2281	2439	2018	2018	2243	2243	2297	2297	2502	2529
A4	Size	18	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	Spacing	457	457	457	457	457	457	457	457	457	457	457	457	457	457	457	457
	Length	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188
	No. Req'd	A4	No. Req'd = (Length A1 ÷ 0.450m) + 1 + (Culv. OD ÷ Spacing A4)														
A5	Size	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	Spacing	457	457	457	457	457	457	457	457	457	457	457	457	457	457	457	457
	Length	A5	Length = (Dimension) ÷ (Culv. OD) + 2 - 0.150m														
	No. Req'd	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
A6	Size	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	Spacing	457	457	457	457	457	457	457	457	457	457	457	457	457	457	457	457
	Length	2037	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210
	No. Req'd	A6	No. Req'd = 2 (Length A5 ÷ 0.450m) + 6														
A7	Size	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	Spacing	457	457	457	457	457	408	408	457	308	308	278	278	305	305	278	300
	Length	1800	1829	1829	2007	2007	2286	2286	2515	2243	2243	2472	2472	3200	3200	3429	3429
	No. Req'd	A7	No. Req'd = 2 (Length A5 ÷ Spacing A7) + 1														
A8	Size	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	Length	1829	1981	2134	2288	2438	2591	2743	2896	3200	3353	3508	3658	3810	3962	4267	4420
	No. Req'd	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
A9	Size	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	Length	2438	2591	2743	2896	3048	3200	3353	3505	3610	3982	4115	4267	4420	4572	4977	5182
	No. Req'd	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Station location and type	Pipe size and type	Length of wall	A1	A2	A3	A4	A5	A6	A7	A8	A9

ONTARIO PROVINCIAL STANDARD DRAWING	Date	1987 09 01	Rev	1
CONCRETE HEADWALL	Date _____			
FOR SEWER OR CULVERT PIPE CP 900 mm DIA AND GREATER	OPSD - 804.02			