

N. J. Peralta Engineering Ltd.

Consulting Engineers

June 15th, 2011

Corporation of the Municipality of Leamington
38 Erie Street North
Leamington, Ontario
N8H 2Z3

Attention: Lu-Ann Barreto, Drainage Superintendent

Dear Lu-Ann:

**SUBJECT: 4TH CONCESSION ROAD DRAIN SECTION 65
Changes in Assessment for
Domenic & Rima Mastronardi Parcel 650-07900
Municipality of Leamington, County of Essex
Project No. D-11-015**

1.0 Authorization

In accordance with instructions received from you on May 13th, 2011, confirming Council's Resolution on May 2nd, 2011, we have made all of the necessary investigations and determinations for the preparation of a report, in accordance with Section 65 of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended 2010". This report deals with adjustments to the Value of Outlet Liability within Parcel 650-07900 to reflect its utilization of the "4th Concession Road Drain" for an increase in total flow volumes from the parcel due to the existing and proposed greenhouse developments on the site. This Parcel now combines the original areas of Parcel 650-07900 and 650-08320 as shown on the sketch in Appendix "B".

Our appointment to deal with this request, where "the nature or extent of the use of a drainage works by land assessed for the drainage works is subsequently altered", is in accordance with and pursuant to Section 65.(3) of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended 2010". We have inserted herein a copy of Section 65 for reference purposes, labelled Appendix "A". We have therefore performed all of the necessary research, investigations, and review of all pertinent documentation, etcetera for the carrying out of our study and we report thereon as follows.

2.0 Background

From work carried out on behalf of the owners, we have established those areas that have previously been and that are to be developed that will result in increased total flow volumes to the "4th Concession Road Drain". Work on the parcel has already included preparation and approval of storm water management reports for the existing greenhouse developments and reports will be submitted to the Municipality for review and approval of new greenhouse developments on the site.

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We have also obtained reference information from the Municipal Drainage Department for the affected portion of the drain, including the current governing by-law and report for the "4th Concession Road Drain", which is the October 10th, 1979 report by Wm. Settingington, P.Eng., and the assessment schedule within same. We find that the lands affected by the proposed greenhouse development are approximately the north two thirds of the parcel shown in the Settingington report that was owned by Tage Hansen, described as North Part Lot 6 Concession 3, and approximately the westerly three quarters of the parcel that was owned by Helen Bell Est., described as Part NE1/4 Lot 6 Concession 3, Geographic Township of Mersea.

3.0 Existing Drainage Conditions

From our review of the storm water management (SWM) work completed to date and currently being carried out on behalf of Domenic & Rima Mastronardi, we were able to establish the overall parcel areas affected by this study.

From our review of the latest engineer's report on the "4th Concession Road Drain", which is the October 10th, 1979 report by Wm. Settingington, P.Eng., we were able to determine which areas within the affected parcel are currently assessed to and utilize the "4th Concession Road Drain" as an outlet.

Based on the above research and investigations, we have prepared plans labeled herein as **Appendix "B"** which show:

1. the boundaries of the affected Parcel 650-07900
2. the existing and proposed greenhouse construction

Parcel 650-07900 currently comprises 6.84 hectares (16.90 acres) and is the westerly and northerly portions of the original parcels. The parcel is presently assessed the following affected area to the "4th Concession Road Drain" in the current report:

- a) Parcel 650-07900 9.50 hectares (23.477 acres)

as confirmed by the December 7th, 1979 report and assessment schedule for the "4th Concession Road Drain" prepared by Wm. Settingington, P.Eng.

4.0 Allowable Release Rates and Stormwater Management

The SWM report documentation already provided and to be provided by our office to the Municipality will show that storm water

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management (SWM) practices are being or are intended to be utilized for the existing and proposed greenhouse development on the parcel. Under no circumstance would the additional runoff volumes be permitted to drain into the "4th Concession Road Drain" unless storm water management is provided. The storm water management systems must ensure that the allowable release rate into the "4th Concession Road Drain" for the parcel does not exceed the 1:2 year storm pre-development runoff rate for the entire area to be connected. Under no circumstance should the Municipality consider allowing the increased total flow volumes into the "4th Concession Road Drain" unless this condition is met. Proper stormwater management facilities restricting the flows to the allowable release rate will ensure that the subsequent flows will have no adverse effect on the capacity of the "4th Concession Road Drain".

Storm water management reports must be prepared for any proposed greenhouse development taking the allowable release rate into consideration, and these should be submitted to the Municipality for review by the staff and approved by them and the Essex Region Conservation Authority (E.R.C.A.) before any work proceeds.

The flows from the greenhouse parcel will generally outlet at the east side near the southeasterly corner of Parcel 650-07900 close to the midpoint of the "4th Concession Road Drain". We also find that the use of SWM controls will reduce the peak flows in the drain and therefore the greenhouse development will not adversely impact on the downstream covered drain sections. Based on our findings, we believe that it is reasonable to allow for the increased total flow volumes from the existing and proposed greenhouse lands, provided that the necessary storm water management provisions are maintained for the existing greenhouse development and are made and maintained for proposed greenhouse expansions.

5.0 Subsequent Connection Charges

We find that the area being drained to the "4th Concession Road Drain" from the affected parcel will not be increased as a result of the greenhouse development. Normally an increase in parcel area would result in buy-in charges to the affected parcel for the additional area being brought into the drain based on the remaining life of any recent work carried out on the Municipal drain. For this project we find, from our investigations with the Municipality, that the total area from the affected parcel now draining to the "4th Concession Road Drain" will be 6.84 hectares (16.90 acres) rather than the 9.501 hectares (23.477 acres) that was originally assessed for the two parcels that are now combined. Accordingly, there is no additional area that requires a

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subsequent connection to the drain and consequently no charges are required to the affected parcel for the area being brought into the drain. As noted above, the SWM controls restrict the outflow rate to the predevelopment rates from the original affected area of the parcel and therefore no adverse impact on flow rates in the drain will occur.

6.0 Assessment for Increased Flow Volumes

With implementation of a stormwater management system limiting the outflows into the "4th Concession Road Drain" to the predevelopment flow rate, as outlined above, the increased total flow volumes from the affected parcel would have no adverse effect on the capacity of the "4th Concession Road Drain". Therefore, based on the above conditions, we find that the "4th Concession Road Drain" has the ability to accept the additional total flow volumes from within the affected parcel, and we are therefore prepared to recommend the approval of this greenhouse development.

If Leamington is prepared to approve the increased total flow volumes from the lands of Domenic & Rima Mastronardi into the "4th Concession Road Drain", an update to the assessments is to be established by the engineer and be charged entirely to the owners of the affected lands. Section 65.(3) of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended 2010" requires that *"where the nature or extent of the use of a drainage works by land assessed for the drainage works is subsequently altered, an engineer appointed by the Municipality for the purpose shall make an inspection and assess the land for a just proportion of the drainage works"*.

From our investigations of the Municipality's drainage files, we have determined that the drainage works for which the affected parcel must be assessed for a just proportion is the "4th Concession Road Drain".

The increased Outlet Liability charge to the owners of the affected parcel should be based on the increased total flow volumes from the already assessed portions to the "4th Concession Road Drain".

7.0 Assessment Adjustments for Increased Total Flow Volume

We find that the Parcel affected in the October 10th, 1979 report and assessment schedule owned at the time by the parties noted above, should have its "Value of Outlet Liability" and "Total Value of Improvement" amounts adjusted to reflect the increased total flow volume that will result from the existing and proposed

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greenhouse development on the parcel. The "Value of Benefit" for this parcel will remain unchanged from its portion of the value shown in the original 1979 report and assessment schedule.

8.0 Future Maintenance Charges

Based on our review of the existing and proposed areas of greenhouse construction and hard surface areas that are there now and that are to be created by the development of the site, we find that the following adjustments should be made to the October 10th, 1979 assessment schedule for the Outlet and Total Values:

<u>Description</u>	<u>Acres Aff'td</u>	<u>Original Value of Outlet</u>	<u>Original Total Value</u>	<u>Updated Value of Outlet</u>	<u>Updated Total Value</u>
<u>Domenic & Rima Mastronardi (650-07900)</u>					
former Hansen & Bell	16.90	\$4,045.00	\$5,957.61	\$5,083.00	\$8,418.61
				UPDATED TOTAL ON LANDS	\$25,320.00 \$37,492.00
				UPDATED TOTAL ASSESSMENT	\$31,089.00 \$44,878.00

In accordance with Section 65.(3) of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended 2010", we recommend that the values in the October 10th, 1979 Schedule of Assessment which is included within the current governing by-law be amended for the current affected parcel to show the updated values as noted above.

Therefore, in accordance with Section 65.(3) of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended 2010", we recommend that the above noted updated values be collected from the affected parcel by the Municipality of Leamington on a pro-rata basis only when there is future maintenance or repairs of the "4th Concession Road Drain", pursuant to the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended 2010".

9.0 Summary and Recommendations

As already established herein, we have conducted a drainage study of the "4th Concession Road Drain" and have determined that the increased total flow volumes for Parcel 650-07900 from development as greenhouse sites, as shown within **Appendix "B"**, shall not adversely affect the performance of said Municipal

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Drain as long as the Stormwater Management Facilities limit the total release rate allowed into said drain to the 1:2 year pre-development runoff.

The pre-development runoff coefficient to be utilized shall be 0.15 for these lands and shall be established in the future Storm Water Management Reports to be submitted to the Municipality of Leamington for their approval.

We have also established herein updated Value of Outlet charges to be paid by the affected Parcel 650-07900, which is a representation of the increased total flow volumes from the developed site.

Based on all of the above, we would therefore recommend that the Municipality of Leamington approve the existing and proposed greenhouse development of Parcel 650-07900 into the "4th Concession Road Drain", as long as all of the above requirements and conditions are complied with. We further recommend that the costs for preparation of this report be assessed 100% to the affected Parcel 650-07900.

If you, or Council, have any questions regarding this "Changes in Assessment Report", please do not hesitate to contact us. It is our understanding that this report is to be approved at the earliest to allow for construction works to be carried out on the proposed greenhouse development.

We respectfully remain,

Yours very truly,

N. J. PERALTA ENGINEERING LTD.


Gerard Rood, P.Eng.

GR/

APPENDIX "A"

SPECIAL PROVISIONS

Changes in assessment

Subsequent subdivision of land

65. (1) If, after the final revision of an engineer's assessment of land for a drainage works, the land is divided by a change in ownership of any part, the clerk of the local municipality in which the land is situate shall instruct an engineer in writing to apportion the assessment among the parts into which the land was divided, taking into account the part of the land affected by the drainage works. 2010, c. 16, Sched. 1, s. 2 (26).

Agreement on share of assessment

(2) If the owners of the subdivided land mutually agree on the share of the drainage assessment that each should pay, they may enter into a written agreement and file it with the clerk of the local municipality and, if the agreement is approved by the council by resolution, no engineer need be instructed under subsection (1). 2010, c. 16, Sched. 1, s. 2 (26).

Subsequent connection to drainage works, etc.

(3) If an owner of land that is not assessed for a drainage works subsequently connects the land with the drainage works for the purpose of drainage, or if the nature or extent of the use of a drainage works by land assessed for the drainage works is subsequently altered, the clerk of the local municipality in which the land is situate shall instruct an engineer in writing to inspect the land and assess it for a just proportion of the drainage works, taking into account any compensation paid to the owner of the land in respect of the drainage works. 2010, c. 16, Sched. 1, s. 2 (26).

Subsequent disconnection from drainage works

(4) If an owner of land that is assessed for a drainage works subsequently disconnects the land from the drainage works, the clerk of the local municipality in which the land is situate shall instruct an engineer in writing to inspect the land and determine the amount by which the assessment of the land should change. 2010, c. 16, Sched. 1, s. 2 (26).

Restriction on connection or disconnection

(5) No person shall connect to or disconnect from drainage works without the approval of the council of the municipality. 2010, c. 16, Sched. 1, s. 2 (26).

Notice of instructions

(6) The clerk of the local municipality shall send a copy of the instructions mentioned in subsection (1), (3) or (4) to the owners of the affected lands as soon as reasonably possible. 2010, c. 16, Sched. 1, s. 2 (26).

Engineer's assessment

(7) An engineer who prepares an assessment pursuant to instructions received under subsection (1), (3) or (4) shall file the assessment with the clerk of the local municipality. 2010, c. 16, Sched. 1, s. 2 (26).

Notice of assessment

(8) The clerk of the local municipality shall attach the engineer's assessment to the original assessment and send a copy of both to the owners of the affected lands. 2010, c. 16, Sched. 1, s. 2 (26).

Assessment binding

(9) Subject to subsection (11), the engineer's assessment is binding on the assessed land. 2010, c. 16, Sched. 1, s. 2 (26).

Costs

(10) The costs of the assessment, including the fees of the engineer, shall be paid by the owners of the lands in the proportion fixed by the engineer or, on appeal, by the Tribunal, and subsection 61 (4) applies to these costs. 2010, c. 16, Sched. 1, s. 2 (26).

Appeal of assessment

(11) If the engineer's assessment is for an amount greater than \$500, the owner of the land may appeal to the Tribunal within 40 days after the date the clerk sends a copy of the assessment to the owner. 2010, c. 16, Sched. 1, s. 2 (26).

Use of amount collected

(12) Any amount collected under subsection (3) shall be credited to the account of the drainage works and shall be used only for the improvement, maintenance or repair of the whole or any part of the drainage works. 2010, c. 16, Sched. 1, s. 2 (26).

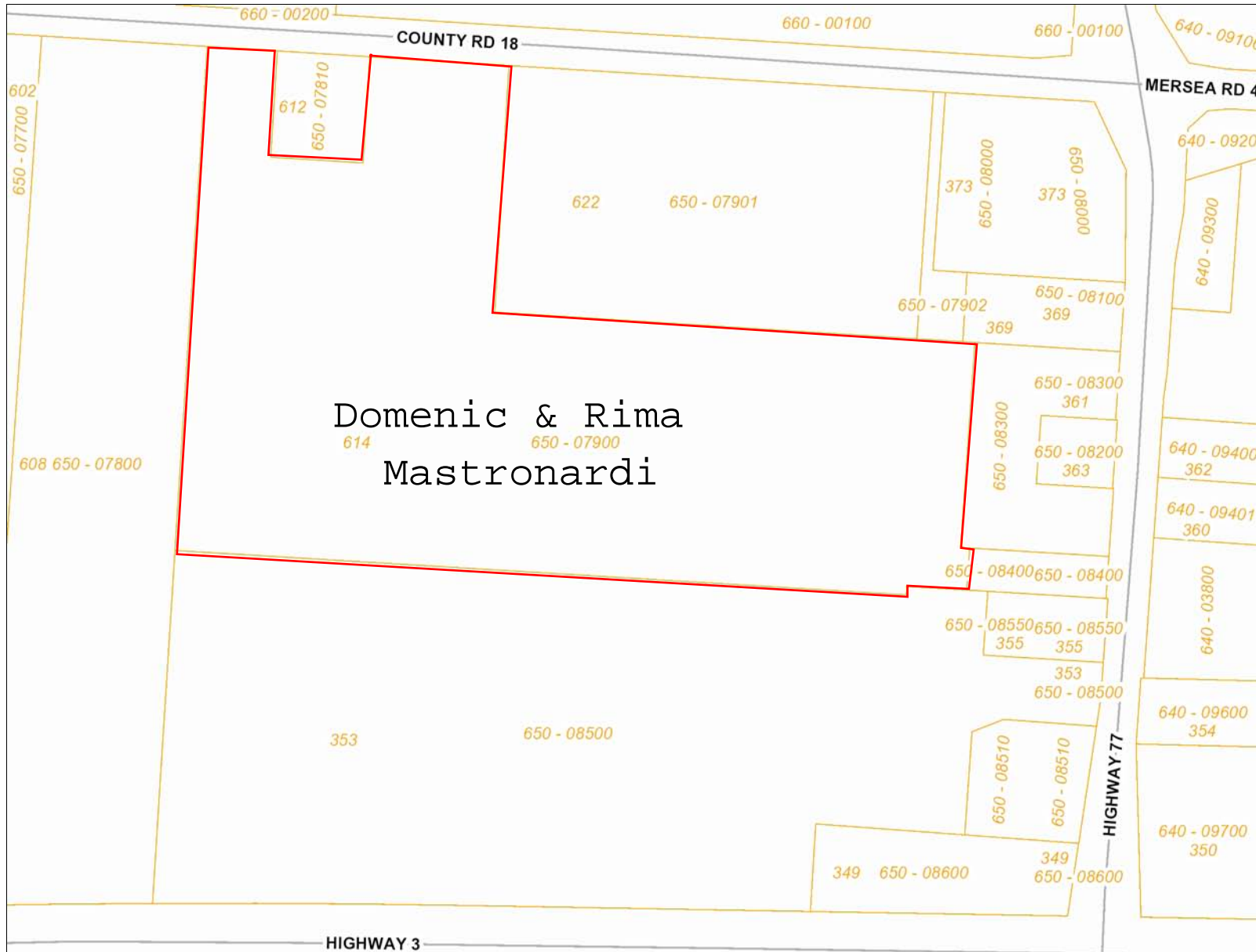
66. Repealed: 2010, c. 16, Sched. 1, s. 2 (26).

APPENDIX "B"



4TH CONCESSION ROAD DRAIN SEC 65

Interactive Mapping Site



Legend

- Streets
- Parcels
- Short Roll Parcels
- Essex County Municipalities**
- Municipality of Leamington
- Peche Island; Pelee Island; Point P
City of Windsor; The Town of LaSalle
Lakeshore; The Town of Tecumseh
Town of Essex; Town of Kingsville
- Water

1: 3,000



152.4 0 76.20 152.4 Meters

6/7/2011 10:00 AM

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Notes

Domenic Mastronardi Greenhouse Development




4TH CONCESSION ROAD DRAIN SEC 65

Interactive
Mapping Site

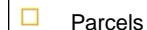


Legend

Drains ERCA Watershed



-  Channelized
-  Natural
-  Tiled

Streets



Parcels




Essex County Municipalities

-  Municipality of Leamington
-  Peche Island; Pelee Island; Point P
City of Windsor; The Town of LaSalle
Lakeshore; The Town of Tecumseh
Town of Essex; Town of Kingsville



Water

Leamington 2008 AirPhoto

-  Red: Band_1
-  Green: Band_2
-  Blue: Band_3

1: 3,000



152.4 0 76.20 152.4 Meters

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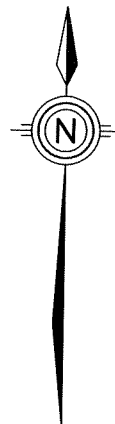
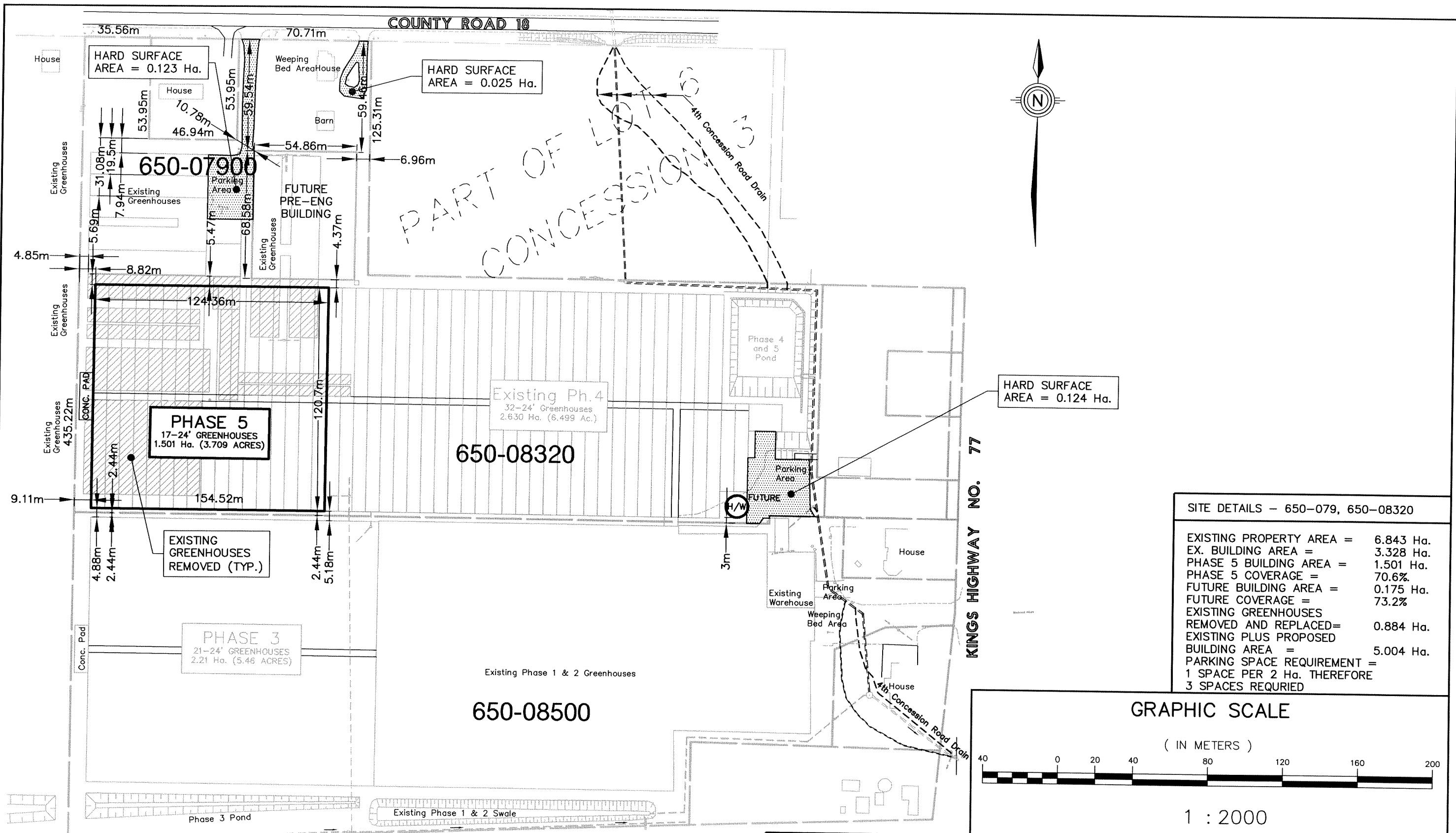
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

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Notes

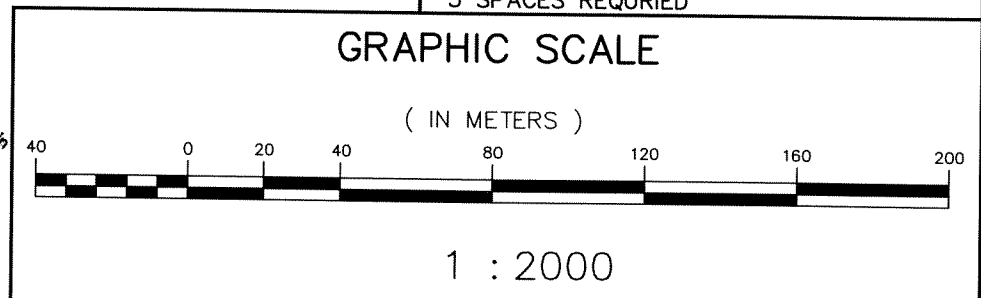
Domenic Mastronardi Greenhouse
Development

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SITE DETAILS - 650-079, 650-08320

EXISTING PROPERTY AREA =	6.843 Ha.
EX. BUILDING AREA =	3.328 Ha.
PHASE 5 BUILDING AREA =	1.501 Ha.
PHASE 5 COVERAGE =	70.6%
FUTURE BUILDING AREA =	0.175 Ha.
FUTURE COVERAGE =	73.2%
EXISTING GREENHOUSES REMOVED AND REPLACED=	0.884 Ha.
EXISTING PLUS PROPOSED BUILDING AREA =	5.004 Ha.
PARKING SPACE REQUIREMENT =	1 SPACE PER 2 Ha. THEREFORE 3 SPACES REQUIRED



4TH CONCESSION ROAD DRAIN
SECTION 65 FOR DOMENIC MASTRONARDI GREENHOUSES
353 HIGHWAY 77 AND 614 COUNTY ROAD 18
IN THE
MUNICIPALITY OF LEAMINGTON
IN THE
COUNTY OF ESSEX • ONTARIO

N. J. Peralta Engineering Ltd.
45 DIVISION STREET NORTH
KINGSVILLE, ONTARIO
N9Y 1E1
DATE: JUNE 15th, 2011

FILE No.: D11-015	DRAWN BY: H.C.M. PLOT CODE: 1:1 FILE: E07-008S3	SITE PLAN
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DRR0110 - Drain Property Portion Details List By Property

Amended by N.J. Peralta Engineering Ltd. #####

Drains 003659 - 003659

parcels impacted by greenhouses

Updated

Property	Description 1	Owner Name	Portion	Category	Sequence	Area Affected	Updated Area	Amount	Total
003659 - 4th CONC RD DR - W/S OUTLET									
3706650000078100000	CON 3 PT LOT 6 RP 12R13750	1329606 ONTARIO LIMITED	Benefit &		40	0		152	152
3706650000079000000	MERSEA CON 3 W PT LOT 6 RP	MASTRONARDI DOMENIC D	Benefit And		50	15008	14.2	3379	8418.61
3706650000079010000	CON 3 N PT LOT 6 RP 12R3046	LUSETTI PETER E	Benefit And		50	11003	6.66	2291	2291
3706650000079020000	CON 3 PT LOT 6 RP 12R3700	UNION GAS LIMITED	Benefit And		40	11003	0	150	150
3706650000080000000	MERSEA CON 3 PT LOT 6 RP	1495646 ONTARIO LIMITED	Benefit And		40	11003	0	817	817
3706650000081000000	CON 3 N PT LOT 6	LUSETTI PETER E	Benefit &		40		0	260	260
3706650000082000000	CON 3 PT LOT 6 RP 12R22684	1329606 ONTARIO LIMITED	Benefit &		40		0	123	123
3706650000083000000	MERSEA CON 3 PT LOT 6 RP	BELL DOUGLAS GEORGE NEIL	Benefit &		40		1.65	558.39	558.39
3706650000083200000	MERSEA CON 3 N PT LOT 6 RP	MASTRONARDI DOMENIC D	Benefit &		50		7.63	2578.61	0 shifted to 650-07900
3706650000084000000	CON 3 N PT LOT 6 RP 12R22684	MASTRONARDI DOMENIC D	Benefit &		40		0	163	163
3706650000085000000	CON 3 N PT LOT 6 RP 12R14143	1329606 ONTARIO LIMITED	Benefit &		50		0	3218.02	3218.02
3706650000085100000	CON 3 PT LOT 6 RP 12R20595	MASTRONARDI DIEGO	Benefit &		40		0	256.48	256.48
3706650000086000000	CON 3 PT LOT 6 RP 12R15455	EHRENREICH FRANK	Benefit &		40		0	89.5	89.5
3706660000001000000	MERSEA CON 4 S PT LOT 6 AND	CUNNINGHAM MATTHEW GERALD	Benefit And		50	15008	24.3	5134	5134
3706660000002000000	CON 4 S PT LOT 6 RP 12R16122	BARRACO ANTONINO JAMES	Benefit And		50	15008	16	3375	3375
3706660000003000000	CON 4 S PT LOT 5 RP 12R13655	WHITTLE FARMS INC	Benefit And		50	15008	22	4594	4594
3706660000003100000	CON 4 PT LOT 5 RP 12R13655	WHITTLE MARILYN BLANCHE	Benefit And		40	15008	0	46	46
3706660000004000000	CON 4 S PT LOT 4 RP 12R13655	WHITTLE MARK WAYNE	Benefit And		50	15008	8	1687	1687
3706660000005000000	CON 4 S PT LOT 4 RP 12R13655	GRINEAU JAMES PHILIP	Benefit And		40	15008	0	129	129
3706660000006000000	MERSEA CON 4 PT LOT 4	1287755 ONTARIO INC	Benefit And		50	15008	15	3164	3164
3706660000007000000	CON 4 S PT LOT 3 RP	1287755 ONTARIO INC	Benefit And		50	15008	2.5	465.63	465.63
3706660000007500000	CON 4 PT LOT 3 RP 12R-17576	1287755 ONTARIO INC	Benefit &		40	15008	0	63.37	63.37
3706660000008000000	CON 4 S PT LOT 3 RP 12R13038	1287755 ONTARIO INC	Benefit And		50	15008	2.5	320	320
3706660000008500000	CON 4 PT LOT 3 RP 12R13038	KOOP ANDREW GRAYDON	Benefit And		40	15008	0.99	209	209
3706660000009000000	CON 4 S PT LOT 3	KOOP RAYMOND PETER	Benefit And		50	15008	2.5	529	529
3706660000010000000	CON 4 S PT LOT 3 RP 12R16587	C & B FARMS INC	Benefit And		50	15008	2.45	518.42	518.42
3706660000010050000	CON 4 S PT LOT 3 RP	TIESSEN CHERYL	Benefit And		40	15008	0.05	10.58	10.58
3706920000049000000	CON 11 PT LOTS 5 AND 6 RP	LEAMINGTON MUNICIPALITY	Benefit And		40	15008	0	750	750
ESSEX RD 18		ESSEX RD 18	Benefit &		32	15008	0	4852	4852
HIGHWAY 77		HIGHWAY 77	Benefit &		21		0	2534	2534
								42417	44878
								42417	

(Items)