

**THE CORPORATION OF THE TOWN OF AMHERSTBURG
BY-LAW NO. 2017-09**

**By-law to authorize the execution of a Development Agreement
between 182 Pickering Inc. and
the Corporation of the Town of Amherstburg
182 Pickering Dr, Amherstburg**

WHEREAS under Section 8 of the Municipal Act 2001, S.O., 2001, c. 25, as amended, a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act.

AND WHEREAS under Section 9. (1) (a) and (b) of the Municipal Act 2001, S.O., 2001, c. 25, as amended, Section 8 shall be interpreted broadly so as to confer broad authority on municipalities to enable them to govern their affairs as they consider appropriate and to enhance their ability to respond to municipal issues;

AND WHEREAS the Corporation of the Town of Amherstburg and the Owner have agreed to the site plan, site servicing drawings and elevations in the Development Agreement;

AND WHEREAS the Corporation of the Town of Amherstburg and owners of said property have agreed to the terms and conditions of a Development Agreement in the form annexed hereto;

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

1. THAT the Mayor and Clerk be hereby authorized to enter into a Development Agreement between 182 Pickering Inc. and the Corporation of the Town of Amherstburg for the redevelopment of 182 Pickering Drive for an apartment bulding development, said agreement affixed hereto;
2. THAT this By-law shall come into force and take effect immediately upon the final passing thereof at which time all by-laws that are inconsistent with the provisions of this by-law and the same are hereby amended insofar as it is necessary to give effect to the provisions of this by-law.

Read a first, second and third time and finally passed this 27th day of February, 2017.



MAYOR – ALDO DICARLO



CLERK – PAULA PARKER

The applicant(s) hereby applies to the Land Registrar.

yyyy mm dd Page 1 of 38

Properties

PIN 70565 - 0338 LT

Description PART OF LOT 3 CONCESSION 1 MALDEN DESIGNATED AS PART 1, 12R-26450;
TOWN OF AMHERSTBURGAddress 182 PICKERING
AMHERSTBURG

PIN 70565 - 0337 LT

Description PART OF LOT 3 CONCESSION 1 MALDEN DESIGNATED AS PARTS 2 & 3, 12R-26450;
S/T EASEMENT OVER PART 3, 12R-26450 AS IN R1329391; TOWN OF
AMHERSTBURGAddress 182 PICKERING
AMHERSTBURG**Consideration**

Consideration \$ 1.00

Applicant(s)

The notice is based on or affects a valid and existing estate, right, interest or equity in land

Name THE CORPORATION OF THE TOWN OF AMHERSTBURG

Address for Service 271 Sandwich Street South
Amherstburg, Ontario
N9V 2A5

This document is not authorized under Power of Attorney by this party.

This document is being authorized by a municipal corporation REBECCA BELANGER, MCIP, RPP, Manager of Planning Services for the Corporation of the Town of Amherstburg..

Party To(s)

Capacity

Share

Name 182 PICKERING INC.

Address for Service 3595 Bathurst Street
Toronto, Ontario
M6A 2E2

I, STEVE NEWMAN, have the authority to bind the corporation

This document is not authorized under Power of Attorney by this party.

Statements

This notice is pursuant to Section 71 of the Land Titles Act.

This notice is for an indeterminate period

Schedule: See Schedules

Signed By

Thomas Robert Porter

500-251 Goyeau Street
Windsor
N9A 6V2acting for
Applicant(s)

Signed

2017 06 07

Tel 519-258-0615

Fax 519-258-6833

I have the authority to sign and register the document on behalf of the Applicant(s).

The applicant(s) hereby applies to the Land Registrar.

Submitted By

MOUSSEAU DELUCA MCPHERSON PRINCE

500-251 Goyeau Street
Windsor
N9A 6V2

2017 06 07

Tel 519-258-0615

Fax 519-258-6833

Fees/Taxes/Payment

Statutory Registration Fee \$63.35

Total Paid \$63.35

DEVELOPMENT AGREEMENT

THIS AGREEMENT made in quadruplicate this 27th day of February, 2017.

BETWEEN: **182 PICKERING INC.**
A corporation incorporated pursuant to and subsisting under the laws of the Province of Ontario

(Hereinafter collectively called "**Owner**")

OF THE FIRST PART;

- and -

THE CORPORATION OF THE TOWN OF AMHERSTBURG

(hereinafter called the "**Corporation**")

OF THE SECOND PART;

Hereinafter collectively referred to as the "**Parties**"

WHEREAS the lands affected by this Agreement are described in Schedule "A" attached hereto, and are hereinafter referred to as the "**Development Lands**";

AND WHEREAS 182 Pickering Inc. warrants they are the registered owner of the Lands outlined in Schedule "A";

AND WHEREAS, in this Agreement the "**Owner**" includes an individual, an association, a partnership or corporation and, wherever the singular is used therein, it shall be construed as including the plural;

AND WHEREAS the Official Plan in effect in Amherstburg designated parts of the area covered by the Official Plan, including the Lands, as a Site Plan Control area;

AND WHEREAS the Owner intends to develop Parts 1,2 and 3 on Plan 12R-26450 of the said lands for a multiple residential dwelling apartment building in accordance with the Site Plan attached hereto as Schedule "B", and hereinafter referred to as the "Site Plan";

AND WHEREAS the Corporation as a condition of development or redevelopment of the said lands requires the Owner to enter into a Development Agreement;

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the premises, along with the sum of FIVE (\$5.00) DOLLARS of lawful money of Canada, now paid by each of the Parties hereto to each of the other parties hereto, the receipt and sufficiency of which are hereby acknowledged, the Owner hereby covenants and agrees with the Corporation as follows:

1. The following Schedules attached hereto, are hereby made a part of this Agreement, as fully and to all intents and purposes as though recited in full herein:

Schedule "A" - Legal description of the Development Lands

Schedule "B"- Site Plan (A101) including without the generality thereof:

- (a) The proposed location of the building including all setbacks;
- (b) The location and provision of parking facilities and access driveway, including the route for emergency vehicles;

- (c) Walkways and all other means of pedestrian access;
- (d) The location and provision for the collection and storage of garbage and other waste materials.
- (e) The location of grass and landscaped areas.
- (f) The location of the proposed loading space.
- (g) The travel distance of the fire hydrant to the main entrance.

- Schedule "C" – Plan of Survey
- Schedule "D" – Floor Plans (A201)
- Schedule "E" – Code Compliance Plans (A002)
- Schedule "F" – Exterior Elevations (A401)
- Schedule "G" – Demolition Plans (A102)
- Schedule "H" – Site Servicing, Grading, & Pavement Plan (C100)
- Schedule "I" – Landscape Plan & Details (LA-1)
- Schedule "J" – Stormwater Management Report

2. The Owner shall be responsible for consulting with and obtaining any necessary approvals from Essex Power regarding any matters that relate to services for the Development Lands to be provided by Essex Power. In addition, the Owner shall be responsible for any costs associated with the reconstruction, relocation or changes to the hydro system resulting from this development.
3. The Owner shall be responsible for consulting with and obtaining any necessary approvals from Union Gas and Bell Canada regarding any matters that relate to services to be provided by Union Gas and Bell Canada. In addition, the Owner shall be responsible for any costs associated with the reconstruction, relocation or changes to these services resulting from this development.
4. If any proposed upgrades to the existing utilities within the municipal right-of-way are required, the Owner must provide copies of the plans on any utility work to the Corporation.
5. The Owner shall be responsible for consulting with and obtaining any necessary approval or permits from the Ministry of the Environment and Climate Change, the County of Essex and/or the Essex Region Conservation Authority (E.R.C.A.).
6. All of the exterior walls of the building shall be as per the elevation drawings as shown on Schedules "F" hereto.
7. All parking or loading areas and lanes and driveways shall be paved with concrete, asphalt or other material capable of permitting accessibility under all climatic conditions, as shown on Schedules "B" and together with crushed stone or gravel, having a combined depth of at least 15.2 cm and with provisions for drainage facilities.
8. The Owner shall maintain a minimum of parking spaces, as designated on Schedules "B".
9. All walkways on the said lands, where so designated on Schedule "B", shall be constructed of concrete, asphalt or other material capable of permitting accessibility under all climatic conditions by the Owner to the satisfaction of the Corporation. To ensure that this development is accessible to persons with

disabilities, the Owner acknowledges that all sidewalks, walkways and islands within this development shall be constructed in such a manner as to safely accommodate persons with special mobility needs. All sidewalk replacement must be 1.5m wide (minimum) as per the Accessibility for Ontarians with Disabilities Act (AODA) even if the current width is 1.2m.

10. If any curbs, sidewalks, boulevards or highway surfaces of the Corporation are damaged during the development by the Owner, such damage shall be repaired or replaced by the Owner.
11. Snow removal from the parking or loading areas and lanes, driveways and walkways shall be the responsibility of the Owner.
12. The Owner shall install, maintain and direct a system for the disposal of storm and surface water as indicated on the Schedules to the satisfaction of the Corporation, so that no such water will flow along the surface from the said lands onto any adjoining lands. The Owner shall finalize the stormwater management plan as necessary to the satisfaction of the criteria of the Corporation to ensure that the release rate for this development is controlled to the capacity available in the existing storm sewers/drains. In addition, that stormwater quality and quantity are addressed up to and including the 1:100 year storm event and in accordance with the guidance provided by the Stormwater Management Planning and Guidance Manual, from the MOECC (March 2003) and Municipal requirements.
13. The Owner shall, at their own expense, install and implement any and all stormwater quality and quantity management measures so identified in the said servicing plans which measures must be implemented or installed to the satisfaction of the Corporation.
14. The Owners shall, at their own expense, prepare a site grading plan and site drainage plan for this development, which plan shall be filed with the Corporation. The final elevations of all buildings and the final site grades relating thereto shall conform to the site grading and site drainage plan as filed. A Consulting Engineer, an Ontario Land Surveyor or a Certified Engineering Technologist shall certify or declare, upon completion of the construction of the building, if applicable, that the said site grading and site drainage plan has been complied with, and until such time as the said certification or declaration has been received by the Corporation, occupancy of the building on the subject lands shall not be granted.
15. Any garbage or refuse that is stored outside shall be stored in a non-combustible container and maintained so that the garbage or refuse does not blow or fall out of the container.
16. Any and all lighting shall be installed and maintained in accordance with the standards set out in the Town's Development Manual, and, so as to not, in the opinion of the Corporation, interfere with the use or enjoyment of adjacent properties or with the safe flow of traffic on abutting or adjacent streets.
17. The Owner shall landscape and maintain the ground cover acceptable to the Corporation those lands so indicated on Schedule "I". The Owner agrees that the site will be inspected on an annual basis and any deficiencies will require immediate correction in accordance with the approved site plan.
18. The Owner shall provide a lot grading plan for the development detailing the finished grade elevation of the Lands as well as all drainage services, works and facilities required for the proper development of the Lands.

19. The Owner agrees that any Municipal property, including without limiting the generality of the foregoing, curbs, gutters, pavements, sidewalks, or landscaped areas on the public highway and any property belonging to a third party, which are damaged during construction or otherwise, shall be restored to the satisfaction of the Town. The Owner shall keep the subject lands in a state of good repair (including the cutting of weeds) and upon written notice from the Town shall correct deficiencies in the state of repair within ten (10) days thereof.
20. All driveways for emergency vehicles shall:
 - 1) Be connected with a public thoroughfare;
 - 2) Be designed and constructed to support expected loads imposed by firefighting equipment;
 - 3) Be surfaced with concrete, asphalt or other material capable of permitting accessibility under all climatic conditions;
 - 4) Have a clear width of 3 metres at all times;
 - 5) Be located not less than 3 metres and not more than 15.2 metres measured horizontally and at right angles from the face of the building;
 - 6) Have an overhead clearance not less than 4.5 metres;
 - 7) Have a change in gradient of not more than 1 in 12.5 over a minimum distance of 15.2 metres; and
 - 8) Have approved signs displayed to indicate the emergency route.
21. If the Ontario Building Code requires that an architect or professional engineer or both shall be responsible for the field review of any new building or re-development provided for in this Agreement, the Owner shall not occupy or use or permit to be occupied or used any said new building or extension until after an architect or professional engineer has given to the Corporation a letter addressed to the Corporation and signed by him certifying that all services on or in the said lands, required for this development or redevelopment, newly installed by the Owner in connection with this development or redevelopment and not contained within a building, have been installed and completed in a manner satisfactory to the architect or professional engineer.
22. The Corporation through its servants, officers and agents including its building inspector, plumbing inspector, fire chief and Director of Engineering and Public Works may from time to time and at any time enter on the Lands to inspect:
 - 1) The progress of development;
 - 2) The state of maintenance as provided for in this Agreement.
23. In the event of any servant, officer or agent of the Corporation determining upon inspection that the development is not proceeding in strict accord with the plans and specifications filed with the Corporation, such servant, officer or agent shall forthwith place a notice requiring all work to be stopped upon the Lands, and shall forward a copy by registered mail to the Owner at his last address as shown by the revised assessment rolls, and the Owner shall forthwith correct the deficiency or deviation.
24. In the event of any servant, officer or agent of the Corporation upon inspection being of the opinion that the state of maintenance is not satisfactory, such servant, officer or agent shall forthwith forward notice of such opinion to the Owner by registered mail at his last address as shown from the revised assessment rolls, and the Owner shall forthwith correct the deficiency or appeal to Council of the Corporation as hereinafter provided.

25. In the event that an Owner should disagree with the opinion of the servant, officer or agent of the Corporation as to the progress of the development or as to the state of maintenance, such Owner shall appear before Council of the Corporation, which after hearing the Owner, shall be permitted to express its position as to whether such progress or maintenance is satisfactory, following which Council of the Corporation shall make a decision, by resolution, as to whether to lift or sustain the prior decision of the Corporation's servant, officer or agent, which shall constitute a final determination of the matter.
26. In the event that an Owner should fail to obey a stop work order issued under Section 23 hereof, the Owner recognizes the right of the Corporation to apply to the Courts for a restraining order.
27. In the event that an Owner should fail to correct a deviation or deficiency after notice pursuant to Sections 24 or 25 or after notice of an opinion, which Council of the Corporation determines is correct under Section 27, the Council of the Corporation may by law direct or default of the matter or thing being done by the Owner, after two (2) weeks notice to it by registered mail at the last shown address of the Owner pursuant to the revised assessment rolls of passage of such by-law, that such matter or thing be done by the Corporation at the expense of the Owner, which expense may be recovered by action or like manner as municipal taxes.
28. In the event of an Owner wishing to change at any time any of the buildings, structures or facilities described in the plans annexed or referred to in Section 1 hereof, it shall make application to Council of the Corporation for approval and shall not proceed with such change until approval is given by such Council, or in default by the Ontario Municipal Board, under the procedure set out in Section 41 of the Planning Act, R.S.O. 1990 herebefore referred to.
29. This Agreement and the provisions thereof do not give to the Owner or any person acquiring any interest in the said lands any rights against the Corporation with respect to the failure of the Owner to perform or fully perform any of its obligations under this Agreement or any negligence of the Owner in its performance of the said obligations.
30. In the event that no construction on the Lands has commenced on or before the expiry of one (1) year from the date of registration of this Agreement, the Corporation may subsequently, at its option, on one month's written notice to the Owner, terminate this Agreement, whereupon the Owner acknowledges that agrees that it will not be able to undertake any development construction on the Lands (or any further development or construction) on the Lands.
31. All facilities and matters required by this Agreement shall be provided and maintained by the Owner at its sole risk and expense to the satisfaction of the Corporation and in accordance with the standards determined by the Corporation and in default thereof and without limiting other remedies available to the Corporation, the provisions of Section 446 of the Municipal Act shall apply.
32. The Owner acknowledges that the said lands are subject to By-law 2014-101 passed October 3, 2014 which established development charges for residential, commercial, and industrial development in the Town, and provided a development charge of \$5,562.00 (one bedroom) and \$7,277.00 (two bedroom) as currently indexed on January 1st, 2017 for each residential unit to be constructed. The Corporation agrees that based on By-law 2014-101, there will be allocation for the building that existed on the site which included one single detached dwelling on the site to be demolished. The Owner further acknowledges that the By-law provides for an annual inflationary adjustment in accordance with Section 3(4)a of the Development Charges Act, and that the above noted figure may change annually. The said development charge shall be paid prior to the

issuance of a building permit unless the Owner obtains Council approval and enters into a service agreement in accordance with Section 27 of the Development Charges Act and the approved Town policy for the temporary deferral of the development charges and will be paid in accordance with the deferral of development charges agreement authorized through municipal by-law.

33. The Corporation acknowledges that the requirement of the Planning Act is that the Owner convey up to 5% of the land included in the plan for park purposes, or cash-in-lieu thereof.
34. A financial guarantee (certified cheque or irrevocable letter of credit – self renewing without burden of proof) for FIFTY PERCENT (50%) of the value of on-site improvements of this development, exclusive of buildings and structures, is required to be paid and/or posted with the Corporation, in addition to further financial security in the amount of ONE HUNDRED PERCENT (100%) for all off-site works required as part of this development.

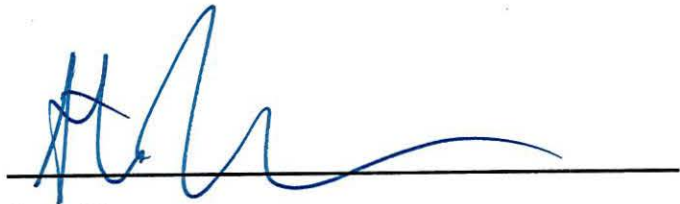
The Owner's engineer is required to provide a certified estimate of the cost of the on-site and off-site work for consideration by the Town's Director of Engineering and Infrastructure for his/her approval, with any decision by the Town's Director of Engineering and Infrastructure in this regard to be final and binding upon the Owner. Once the Town has inspected and approved the construction of the on-site and off-site works, the Owner will be required to provide security for a ONE (1) year maintenance period in the amount of FIFTEEN PERCENT (15%) of the cost of on-site and off-site improvements.

35. This Agreement shall be registered against the land to which it applies, at the expense of the Owner, and the Corporation shall be entitled, subject to the provisions of the Registry Act and the Land Titles Act, to enforce its provisions against the Owner named herein and any and all subsequent owners of the lands.
36. This Agreement shall ensure to the benefit of and be binding upon the Parties hereto and their respective heirs, executors, administrators, successors and permitted assigns.
37. This Agreement shall be governed by, and interpreted according to, the laws of the Province of Ontario and the laws of Canada applicable therein, and shall be treated in all respects as an Ontario Contract.
38. If any provision or part thereof of this Agreement be illegal or unenforceable, it or they shall be considered separate and severable from the Agreement, and the remaining provisions of the Agreement shall remain in force and effect and shall be binding upon the Parties hereto as though the said provision or part thereof had never been including in this Agreement.
39. The division of this Agreement into Articles, sections and subsections and the insertion of headings are for convenience of reference only and shall not effect the construction or interpretation hereof.
40. This Agreement may be executed in several counterparts, each of which when so executed shall be deemed to be an original, and such counterparts together shall constitute one and the same instrument and shall be effective as of the date set out above.
41. Words importing the singular number include the plural and vice versa; words importing the masculine gender include the feminine and neutral genders.

42. Schedules and other documents attached or referred to in this Agreement are an integral part of this Agreement, and are hereby incorporated into this Agreement by reference.
43. This Agreement constitutes the entire agreement among the Parties and except as herein stated and in the instruments and documents to be executed and delivered pursuant hereto, contains all of the representations and warranties of the respective Parties. There are no oral representations or warranties among the Parties of any kind. This Agreement may not be amended or modified in any respect except by written instrument signed by both Parties.

IN WITNESS WHEREOF the Owner and the Corporation (the latter under the hands and seals of its officers duly authorized in this regard), have executed this Agreement as of the date first above written.

OWNER: 182 PICKERING INC.



Per Steve Newman

I have authority to bind the Corporation

**THE CORPORATION OF THE
TOWN OF AMHERSTBURG**



Per Aldo DiCarlo, Mayor



Per Paula Parker, Clerk

We have authority to bind the Corporation

Authorized and approved by By-law No. 2017-09 enacted the 27th day of February, 2017.

SCHEDULE "A"
LEGAL DESCRIPTION

The following is a description of the land to which this instrument applies.

Part of Lot 3, Concession 1, designated as Parts 1,2 and 3, 12R-26450;
S/T Easement over Part 3, 12R-26450 as in R1329391;
Town of Amherstburg, Province of Ontario

182 PICKERING INC.

John Lajoy or Steve Newman

TOWN OF AMHERSTBURG

Mayor- Aldo DiCarlo

Clerk- Paula Parker



PARTS SCHEDULE

PART	LOT	CON/PLAN	P.I.N.	AREA m ²
1			ALL OF 70565-0203	1259.1
2	PART OF LOT 3	CONCESSION 1	PART OF 70565-0202	728.6
3				222.8

THIS PLAN COMPRISES ALL OF P.I.N.'S 70565-0202 AND 70565-0203. PART 3 IS SUBJECT TO EASEMENT AS IN INST. No. R1325591.

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.

DATE _____ DATE _____

ANDREW S. MANTHA
ONTARIO LAND SURVEYOR

REPRESENTATIVE FOR LAND REGISTRAR FOR THE LAND TITLES DIVISION OF ESSEX (12)

PLAN 12R--
RECEIVED AND DEPOSITED

PLAN OF SURVEY
OF
**PART OF LOT 3,
CONCESSION 1**
GEOGRAPHIC TOWNSHIP OF MALDEN
NOW IN THE
TOWN OF AMHERSTBURG
COUNTY OF ESSEX, ONTARIO
VERHAEGEN • STUBBERFIELD • HARTLEY • BREWER • BEZAIRE INC.

SCALE = 1:250

LEGEND AND NOTES
BEARINGS ARE UTM GPS DERIVED FROM OBSERVED REFERENCE POINTS "A" AND "B" BY REAL TIME NETWORK OBSERVATIONS.
DISTANCES ON THIS PLAN ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99995078

- S/I DENOTES 25mm X 25mm X 1.22m STANDARD IRON BAR
- S/B DENOTES 25mm X 25mm X 0.51m SHORT STANDARD IRON BAR
- 16 DENOTES 16mm X 16mm X 0.51m IRON BAR
- 18 DENOTES 18mm diameter X 0.81m ROUND IRON BAR
- CC DENOTES CUT-CROSS
- CP DENOTES 5mm X 50mm STEEL PIN
- CF DENOTES SURVEY MONUMENT FOUND
- DI DENOTES SURVEY MONUMENT SET AND MARKED 1744
- WI DENOTES WITNESS I DENOTES PERPENDICULAR
- (S) DENOTES SET (M) DENOTES MEASURED (R) DENOTES DEED
- ORP DENOTES OBSERVED REFERENCE POINT
- SSIB'S SHOWN ON THIS PLAN HAVE BEEN SET IN LIEU OF SIB'S WHERE THE POSSIBILITY THAT UNDERGROUND UTILITIES EXIST.
- (S/P) DENOTES SET PROPORTIONALLY (S/U) DENOTES ORIGIN UNKNOWN
- (S) DENOTES PLAN 12R-10000 (S/V) DENOTES PLAN 12R-12477
- (S2) DENOTES PLAN 12R-12572 (S3) DENOTES PLAN 12R-14329
- (1744) DENOTES VERHAEGEN STUBBERFIELD HARTLEY BREWER BEZAIRE INC., O.L.S.
- (1341) DENOTES RICHARD W. MURRAY, O.L.S.
- (1389) DENOTES CLARKE SURVEYORS INC., O.L.S.
- (1144) DENOTES JOHN B. SWEETON INC., O.L.S.

- LEGEND**
- MH DENOTES HYDRO MANHOLE
 - MS DENOTES SEWER MANHOLE
 - MT DENOTES TELEPHONE MANHOLE
 - MTR DENOTES TRAFFIC MANHOLE
 - MW DENOTES WATER MANHOLE
 - CB DENOTES CATCH BASIN
 - DB DENOTES DOUBLE CATCH BASIN
 - LSA DENOTES LIGHT STANDARD CONCRETE
 - LSs DENOTES LIGHT STANDARD STEEL
 - LSW DENOTES LIGHT STANDARD WOOD
 - UPC DENOTES UTILITY POLE CONCRETE
 - UPS DENOTES UTILITY POLE STEEL
 - UPW DENOTES UTILITY POLE WOOD
 - GP DENOTES GUY POLE
 - GW DENOTES GUY WIRE
 - B DENOTES BOLLARD
 - PM DENOTES PARKING METER
 - TAC DENOTES TOP OF CURB
 - TBC DENOTES BOTTOM OF CURB
 - FM DENOTES FIRE HYDRANT
 - WM DENOTES WATER METER
 - WV DENOTES WATER VALVE (Service)
 - WVM DENOTES WATER VALVE (Main)
 - GM DENOTES GAS METER
 - GV DENOTES GAS VALVE
 - HM DENOTES HYDRO METER
 - PT DENOTES TELEPHONE PEDESTAL
 - PTV DENOTES CABLE TV PEDESTAL
 - TS DENOTES TRAFFIC SIGN
 - TSs DENOTES TRAFFIC SIGNAL
 - TSW DENOTES TRAFFIC SIGNAL BOX
 - TH DENOTES TESTHOLE
 - BM DENOTES BENCH MARK
 - HCP DENOTES HORIZONTAL CONTROL POINT
 - VCP DENOTES VERTICAL CONTROL POINT
 - SH DENOTES SHRUB
 - SC DENOTES SEWER CLEANOUT
 - IV DENOTES INVERT

DECIDUOUS AND CONIFEROUS TREES ARE DENOTED AT AND CT RESPECTIVELY. A PREFIX TO THE DESCRIPTION DESIGNATES THE NUMBER OF TREE TRUNKS WHEN TREES ARE CLUMPED TOGETHER AND A SUFFIX DENOTES THE TREE DIAMETER OR (NTS) NOT TO SCALE.

UNDERGROUND CABLE, HYDRO OR TELEPHONE LINES ARE PREFIXED WITH THE LETTER "U" (CABLE = UC HYDRO = UH TELEPHONE = UT)

SURVEYOR'S CERTIFICATE
I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT, THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THIS SURVEY WAS COMPLETED ON THE 9th DAY OF JUNE, 2015

DATE JUNE 18, 2015

ANDREW S. MANTHA
ONTARIO LAND SURVEYOR
for VERHAEGEN • STUBBERFIELD • HARTLEY
BREWER • BEZAIRE INC.

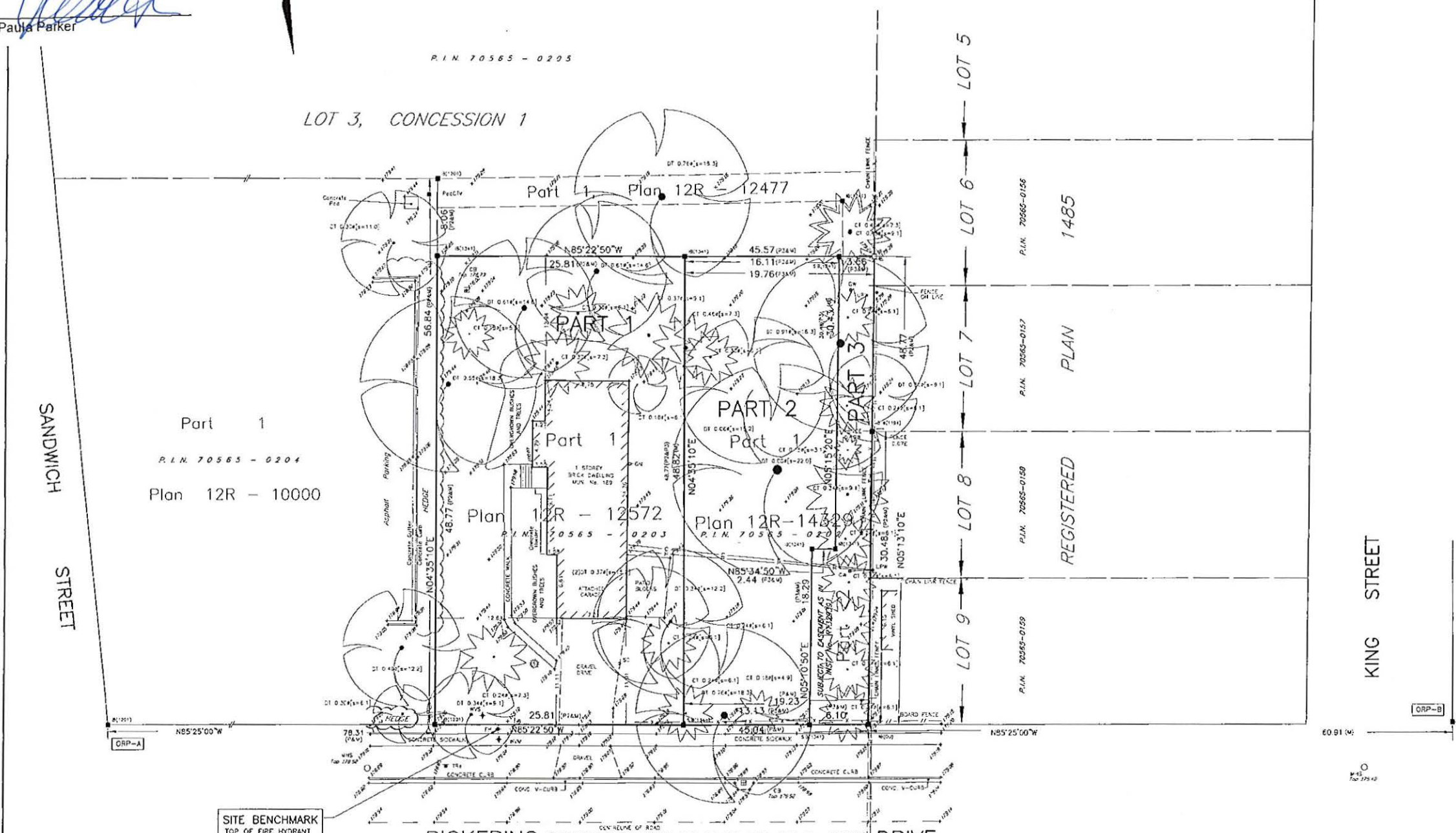
WINDSOR 475 Devonshire Road, Suite 200 N5Y 2L5
PH: (519) 258-1772
FAX: (519) 258-1770

VERHAEGEN STUBBERFIELD HARTLEY BREWER BEZAIRE INC.

LEAMINGTON 167 Faber Street East N8H 1L6
PH: (519) 322-2375
FAX: (519) 322-2678

ONTARIO LAND SURVEYORS www.vshsbysurveys.com

DATE: June 19, 2015 3:12 PM
CHECKED BY: A.S.M. CAD FILE: 42735500.dwg
PLOT: 4-27355 FILE NO: E-MALDEN-1-3 PLAN FILE NO: C-4108



SITE BENCHMARK
TOP OF FIRE HYDRANT
ELEVATION: 179.92

ELEVATIONS
ELEVATIONS SHOWN ON THIS PLAN ARE IN METRES C.G.V.D. 28 (H.T.V. 2.0)

BENCH MARK
BENCH MARK No. B10049 ELEVATION 181.088
LOCATED ON THE PUBLIC LIBRARY SITUATED AT THE SOUTH-WEST CORNER OF THE INTERSECTION OF SANDWICH AND RICHMOND STREETS.

SITE BENCHMARK
SHOWN ON FACE PLAN

AREA
XXXX ACRES

INTEGRATION DATA

COORDINATES ARE DERIVED FROM GPS OBSERVATIONS USING THE CAN-NET NETWORK SERVICE AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) NAD83 (CSRS) (1997.0).
COORDINATE VALUES ARE TO AN URSAN ACCURACY IN ACCORDANCE WITH SECTION 14(2) O.REG. 216/10

POINT ID	NORTHING	EASTING
ORP-A	N4662746.828	E325591.152
ORP-B	N4652732.368	E325874.823

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

"METRIC" DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

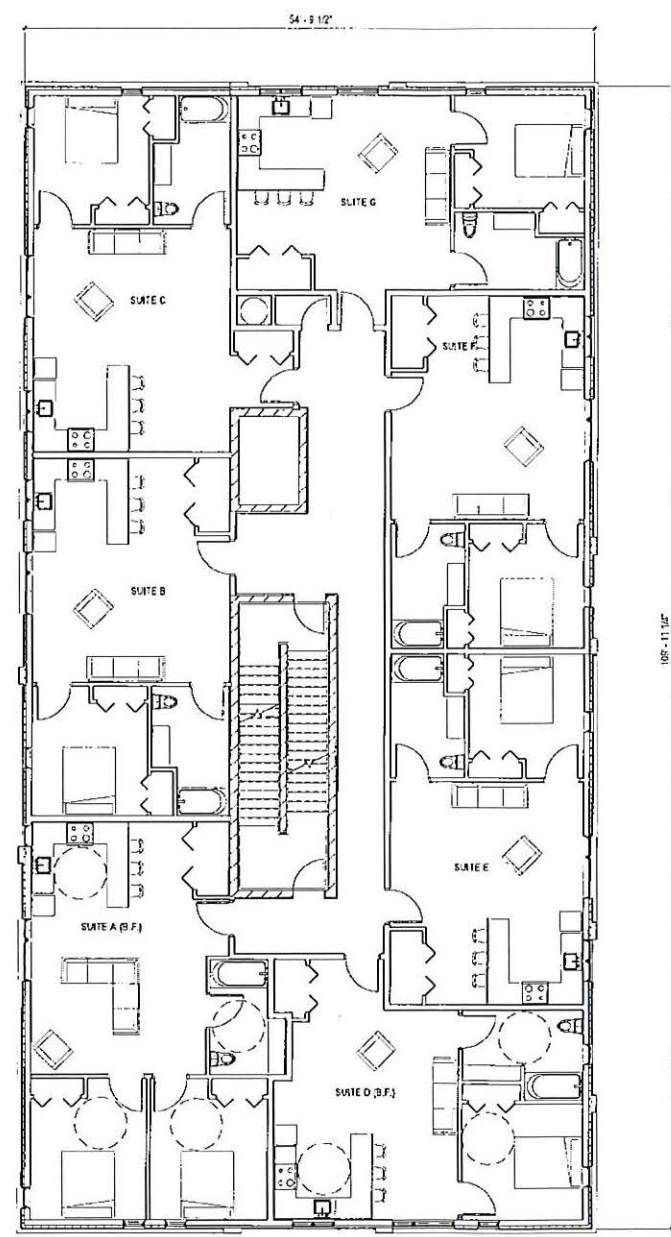
No.	Description

OVERALL FLOOR PLANS

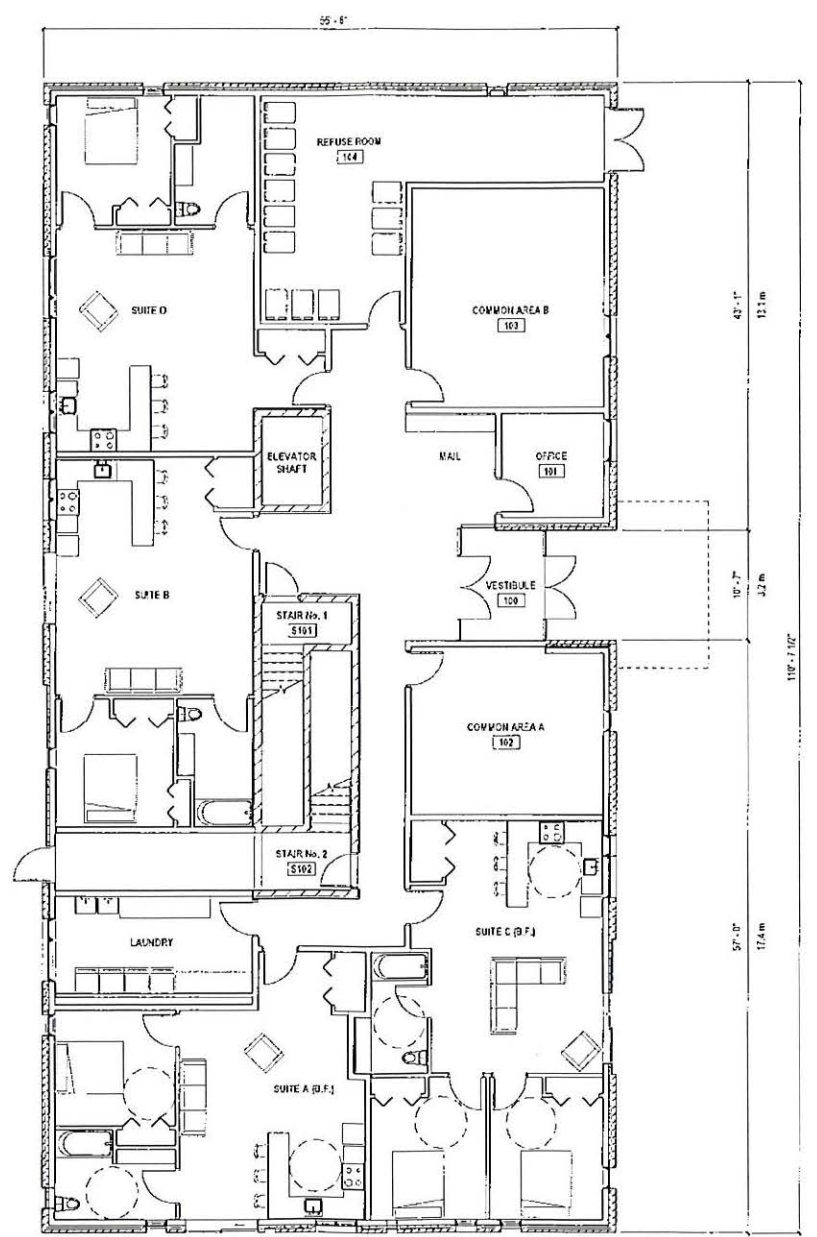
182 PICKERING INC.
 Amherstburg Residential Development
 182 PICKERING DR., AMHERSTBURG, ON

Drawn By: _____
 Created By: _____
 Project No: 1529
 Sheet No:

A201



TYPICAL FLOORS 2 - 5 PLAN
 SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN
 SCALE: 1/8" = 1'-0"

C:\Users\designer07\Desktop\Local Files\1529mainfile_muhnerofal.rvt

SCHEDULE "D" TO BY-LAW 2017-09
 182 PICKERING INC.

John Lajoy or Steve Newman

TOWN OF AMHERSTBURG

Mayor- Mario DiCarlo

Clerk- Paula Parker

THIS DOCUMENT IS UNLESS OTHERWISE NOTED, IS THE PROPERTY OF ARCHITECTURA INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF ARCHITECTURA INC. ANY REPRODUCTION OR TRANSMISSION OF THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF ARCHITECTURA INC. IS PROHIBITED.

THIS DRAWING SHEET IS PART OF A SET OF DRAWINGS. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF ARCHITECTURA INC. ANY REPRODUCTION OR TRANSMISSION OF THIS DRAWING SHEET WITHOUT THE WRITTEN PERMISSION OF ARCHITECTURA INC. IS PROHIBITED.

Firm Name: Architectura Inc. Architects
Certificate of Practice Number: 3267
 182 Fergus St. W.
 Windsor, ON N9A 2Y6
 The Certificate of Practice Number of the holder is the holder's BCOR
Name of Project:
 Amherstburg Residential Development
Location:
 182 Pickering Dr., Amherstburg, ON

Item	Ontario Building Code Data Matrix Parts 3 & 9																														
1	Project Description <input type="checkbox"/> New <input type="checkbox"/> Add-on <input type="checkbox"/> Alteration																														
2	Major Occupancy (s) Group C																														
3	Building Area 565.9m ² (6,122.21ft ²)																														
4	Gross Area 2,837.3m ² (30,545.9ft ²)																														
5	Number of Storeys Above Grade = 5 Below Grade = 0																														
6	Number of Streets/Facility Access 2																														
7	Building Classification 3-2-2-42 - Group C, Up to 6 Storeys, Sprinklered, Non-combustible Construction																														
8	Sprinkler System Proposed <input type="checkbox"/> entire building <input type="checkbox"/> basement only <input type="checkbox"/> in lieu of roof rating <input type="checkbox"/> not required																														
9	Smoke Alarm Required <input type="checkbox"/> Yes <input type="checkbox"/> No																														
10	Fire Alarm Required <input type="checkbox"/> Yes <input type="checkbox"/> No																														
11	Water Service Supply & Adequacy <input type="checkbox"/> Yes <input type="checkbox"/> No																														
12	High Building <input type="checkbox"/> Yes <input type="checkbox"/> No																														
13	Permitted Construction <input type="checkbox"/> Combustible <input type="checkbox"/> Non-combustible <input type="checkbox"/> Both Actual Construction <input type="checkbox"/> Combustible <input type="checkbox"/> Non-combustible <input type="checkbox"/> Both																														
14	Mechanical Area m ² N/A																														
15	Occupant load based on 2 Persons per sleeping room Occupancy Group C Load 74 persons																														
16	Barrier-free Design <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain)																														
17	Windows Substantive <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																														
18	Required Fire Resistance Rating (FRR) Horizontal Assemblage FRR (Hours) Floors 1 HOUR Roof N/A Mezzanine N/A FRR of Supporting Members Floors 1 HOUR Roof N/A Mezzanine N/A Listed Design No. or Description (B-G-2)																														
19	Spacial Separation - Construction of exterior walls <table border="1"> <thead> <tr> <th>Wall</th> <th>Area of EBP (m²)</th> <th>L.D. (m)</th> <th>L.H.</th> <th>Permitted Max. % of Openings</th> <th>Proposed % of Openings</th> </tr> </thead> <tbody> <tr> <td>North</td> <td>265.5 m²</td> <td>7.5 m</td> <td>N/A</td> <td>66%</td> <td>13.9%</td> </tr> <tr> <td>South</td> <td colspan="5">LIMITING DISTANCE OVER 9M</td> </tr> <tr> <td>East</td> <td colspan="5">LIMITING DISTANCE OVER 9M</td> </tr> <tr> <td>West</td> <td>533.5 m²</td> <td>6.1 m</td> <td>N/A</td> <td>52%</td> <td>19.2%</td> </tr> </tbody> </table>	Wall	Area of EBP (m ²)	L.D. (m)	L.H.	Permitted Max. % of Openings	Proposed % of Openings	North	265.5 m ²	7.5 m	N/A	66%	13.9%	South	LIMITING DISTANCE OVER 9M					East	LIMITING DISTANCE OVER 9M					West	533.5 m ²	6.1 m	N/A	52%	19.2%
Wall	Area of EBP (m ²)	L.D. (m)	L.H.	Permitted Max. % of Openings	Proposed % of Openings																										
North	265.5 m ²	7.5 m	N/A	66%	13.9%																										
South	LIMITING DISTANCE OVER 9M																														
East	LIMITING DISTANCE OVER 9M																														
West	533.5 m ²	6.1 m	N/A	52%	19.2%																										
20	Plumbing Fixtures <table border="1"> <thead> <tr> <th>OCCUPANTS</th> <th>FIXTURE TYPE</th> <th>REQUIRED</th> <th>PROVIDED</th> </tr> </thead> <tbody> <tr> <td rowspan="2">MALE</td> <td>WATER CLOSETS</td> <td>1 per unit</td> <td>1 per unit</td> </tr> <tr> <td>LAVATORIES</td> <td>1 per unit</td> <td>1 per unit</td> </tr> <tr> <td rowspan="2">FEMALE</td> <td>WATER CLOSETS</td> <td>1 per unit</td> <td>1 per unit</td> </tr> <tr> <td>LAVATORIES</td> <td>1 per unit</td> <td>1 per unit</td> </tr> </tbody> </table>	OCCUPANTS	FIXTURE TYPE	REQUIRED	PROVIDED	MALE	WATER CLOSETS	1 per unit	1 per unit	LAVATORIES	1 per unit	1 per unit	FEMALE	WATER CLOSETS	1 per unit	1 per unit	LAVATORIES	1 per unit	1 per unit												
OCCUPANTS	FIXTURE TYPE	REQUIRED	PROVIDED																												
MALE	WATER CLOSETS	1 per unit	1 per unit																												
	LAVATORIES	1 per unit	1 per unit																												
FEMALE	WATER CLOSETS	1 per unit	1 per unit																												
	LAVATORIES	1 per unit	1 per unit																												

ARCHITECTURAL ABBREVIATIONS

AF	ABOVE FINISH FLOOR	IM	INSULATED METAL
ACC	AIR CONDITIONING CONDENSATE UNIT	NIC	NOT IN CONTRACT
ACT-1	ACOUSTIC CEILING TILE	ND	SANITARY NAPKIN DISPOSAL
ADO	AUTOMATIC DOOR OPERATOR	NV	SANITARY NAPKIN VENDOR
AWP-1	ACOUSTIC WALL PANEL	OMP	COMPOSITE
ACP	ALUMINUM COMPOSITE PANELS	P_LAM	PLASTIC LAMINATE
APS	ASSISTANCE REQUIRED SIGNAL	PT	PART
AVS	AUDIBLE VISUAL SIGNAL	PTD	PAPER TOWEL DISPENSER/ROCK DISPOSAL
CBM-1	CONCRETE BLOCK	RA	ROOF ANCHOR
CG	CORNER GUARD	RB	RESILIENT BASE
CH	COAT HOOK	RD	ROOF DRAIN
CJ	CONTROL JOINT	RWL	RAIN WATER LEADER
CONC	CONCRETE	S S	STAINLESS STEEL
CPI-1	CARPET TILE INTERFACE 500mm x 500mm	SD	SOAP DISPENSER
CR	CARD READER	SHWR	SHOWER
CT	PORCELAIN TILE 210mm x 600mm	SLR	CONCRETE SEALER
CM	CURBMAN WALL	SR	SEALER PACK
CWH	CABINET WARM HEATER	SRL	SEALER
CV	CONNECTOR	T.O.	TOP OF
DS	DOWNSPOUT	TP	TOILET PAPER HOLDER
EBP	EMERGENCY PUSH BUTTON	TB	TACK BOARD
EP	ELECTRICAL PANEL	TWSI	TACTILE WALKING SURFACE INDICATOR
ES	EMERGENCY SIGN	U.N.O.	UNLESS NOTED OTHERWISE
FB	FLOOR BOX	US	UNDERSIDE
FD	FLOOR DRAIN	V.F.	VERIFY IN FIELD
FE	FIRE EXTINGUISHER	VFL	VINYL FLOOR
FHC	FIRE HOSE CABINET	VCL	VINYL COMPOSITE TILE
GL	GLASS	WB	WHITE BOARD
GYP BD	GYP/PLUM BOARD	WD	WOOD
HM	HEAVY METAL	WP	WATERPROOFING
IHS	INSULATION		

ARCHITECTURAL LEGEND

Room name	ROOM NUMBER	HP	ROOF HIGH POINT
(101)	DOOR NUMBER	CG	CORNER GUARD
(10)	W/DOOR TYPE	E	CENTERLINE
(W1A)	WALL TYPE	•••••	SPOT ELEVATION
(ACT-1)	CEILING TYPE	RD	ROOF DRAIN
13'-0"	CEILING HEIGHT	FD	FLOOR DRAIN
(10)	EXTERIOR WINDOW NUMBER		

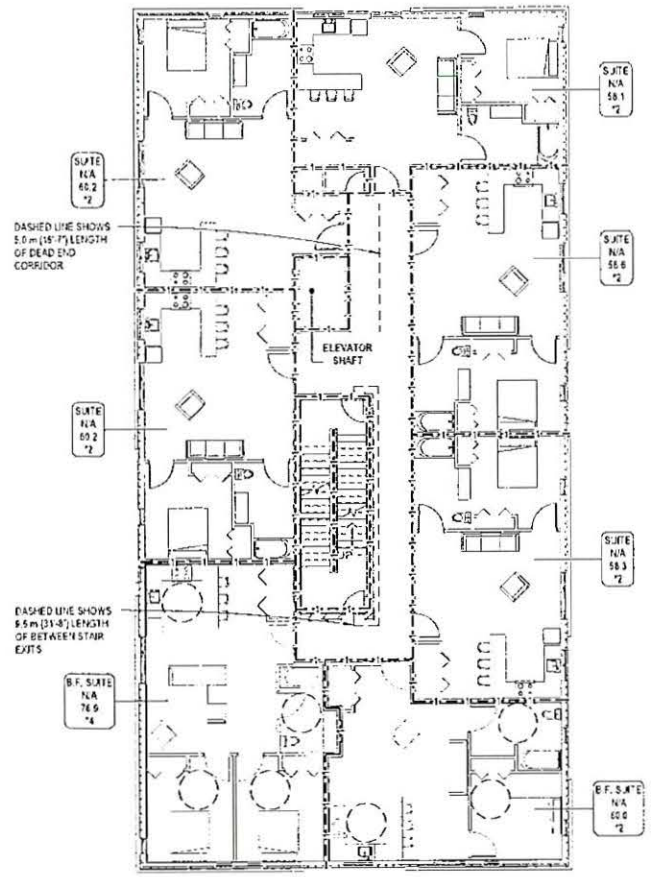
SHEET No. EXTERIOR BUILDING ELEVATION INDICATOR
 SHEET No. INTERIOR BUILDING ELEVATION INDICATOR
 SHEET No. WALLWORK ELEVATION INDICATOR
 SHEET No. SECTION INDICATOR

CODE COMPLIANCE LEGEND

EXAMPLE: OCCUPANCY CALCULATION
 OFFICE 8.3
 15
 1
 ROOM DESCRIPTION
 OCCUPANT LOAD (m²/PERSON) CBC 3.1 (7.1)
 AREA OF ROOM (m²)
 OCCUPANTS (INDICATES BY AREA DESIGN 3.1 (7.1) (1.1))

EXAMPLE: EXIT CALCULATION
 STAIR 514
 790
 150
 EXIT DESIGNATION
 PROVIDED DOOR WIDTH (mm)
 PROVIDED DOOR WIDTH (mm)
 PROVIDED OCCUPANCY EXIT CAPACITY (PERSONS)

--- 3/4 --- FIRE SEPARATIONS - NUMBER INDICATES FIRE-RESISTANCE RATING IN HOURS
 FIRE PROTECTION AT THE UNDERSIDE OF FLOOR/LANDINGS
 BARRIER FREE ACCESSIBLE STATE CALCULATION 3.2.1.1 (4)
 15% OF ALL STATES
 REQUIRED 5 PROVIDED 13



182 PICKERING INC.

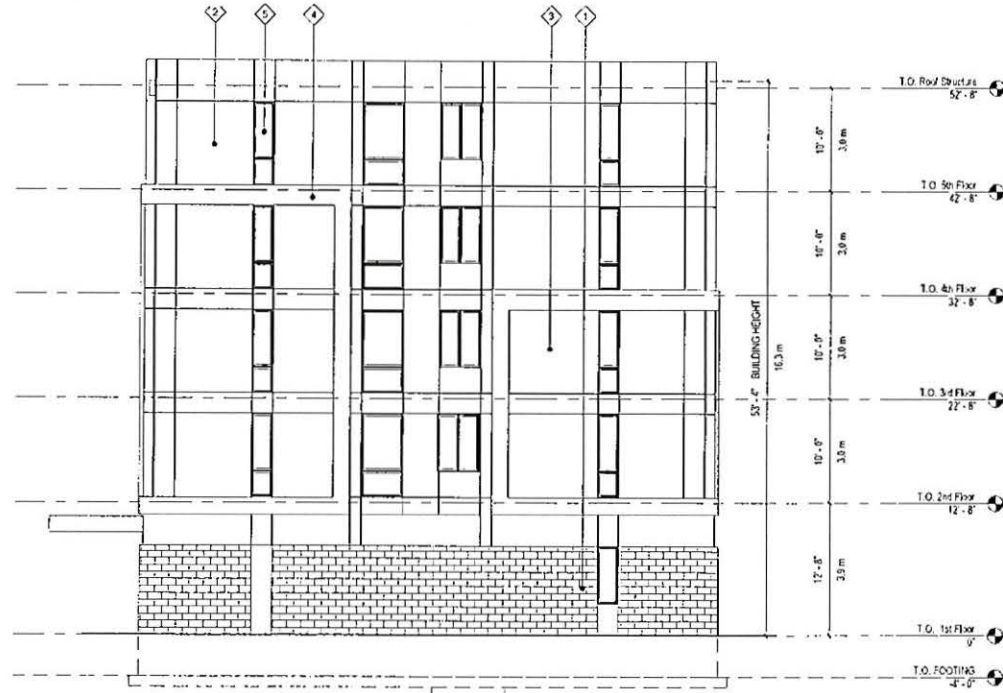
John Lajoie or Steve Newman

TOWN OF AMHERSTBURG

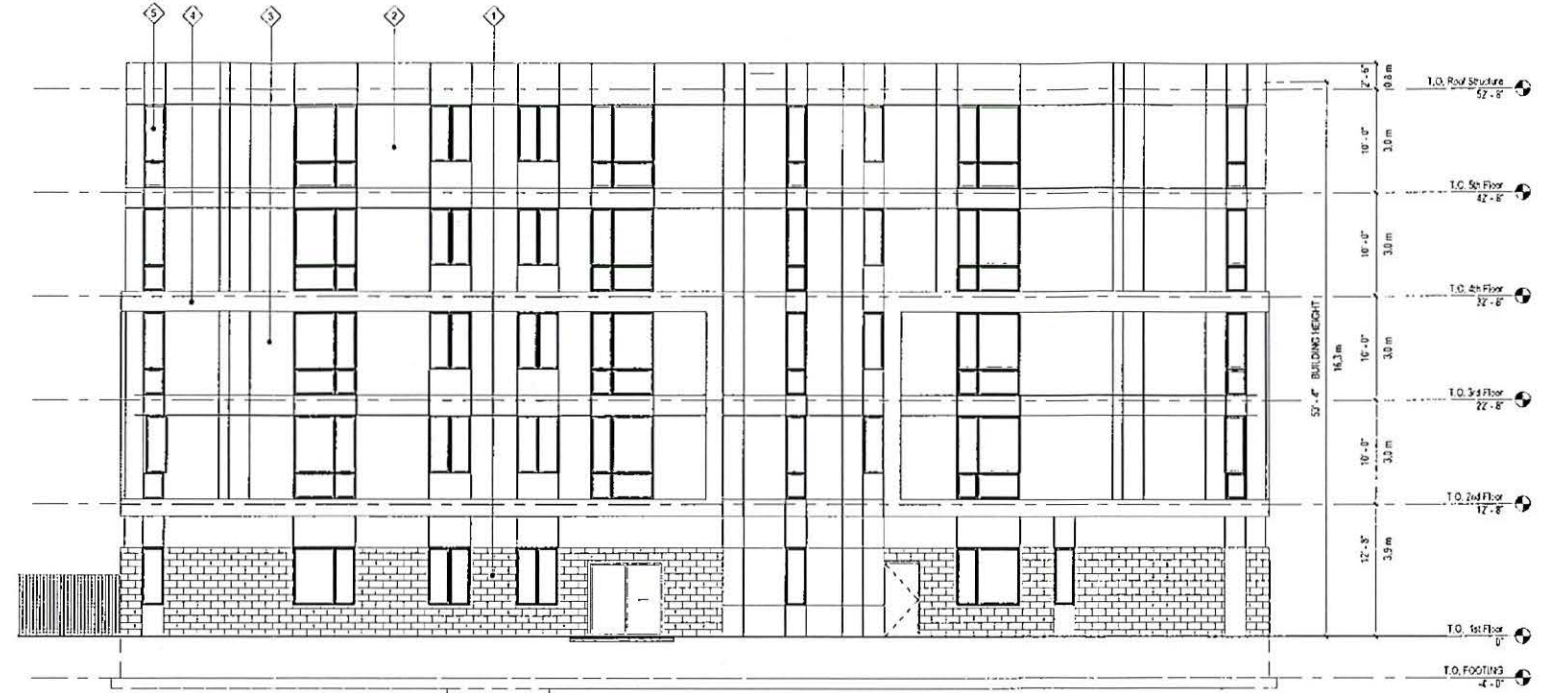
Mayor- Aldo DiCarlo

Clerk- Paula Parker

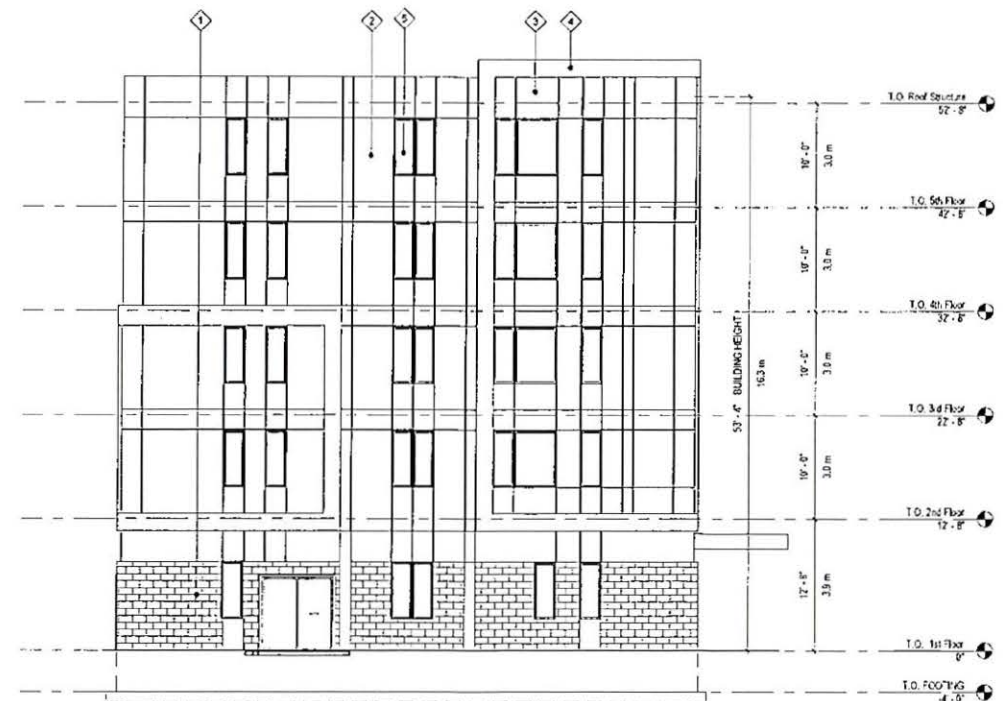
MATERIAL LEGEND	
	AMJ-1 - ARCHITECTURAL BLOCK
	EIFS-1
	EIFS-2
	ACP-1
	ALUMINUM FRAME WINDOWS / CURTAIN WALL
	PRE-FINISHED METAL COPINGS / FLASHING
	SIGNAGE - REFER TO DETAILS



4 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



3 WEST ELEVATION
SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



1 EAST ELEVATION
SCALE: 1/8" = 1'-0"



Issued For: AMV001
 SPA: 2017-04
 CDS/JL/TJN: 2017-01-13
 Site No: 2017-01-13

No.	Description	Date

EXTERIOR ELEVATIONS

182 PICKERING INC.
 Amherstburg Residential Development
 182 PICKERING DR., AMHERSTBURG, ON

Drawn By: _____
 Checked By: _____
 Project No: 1529
 Sheet No: _____

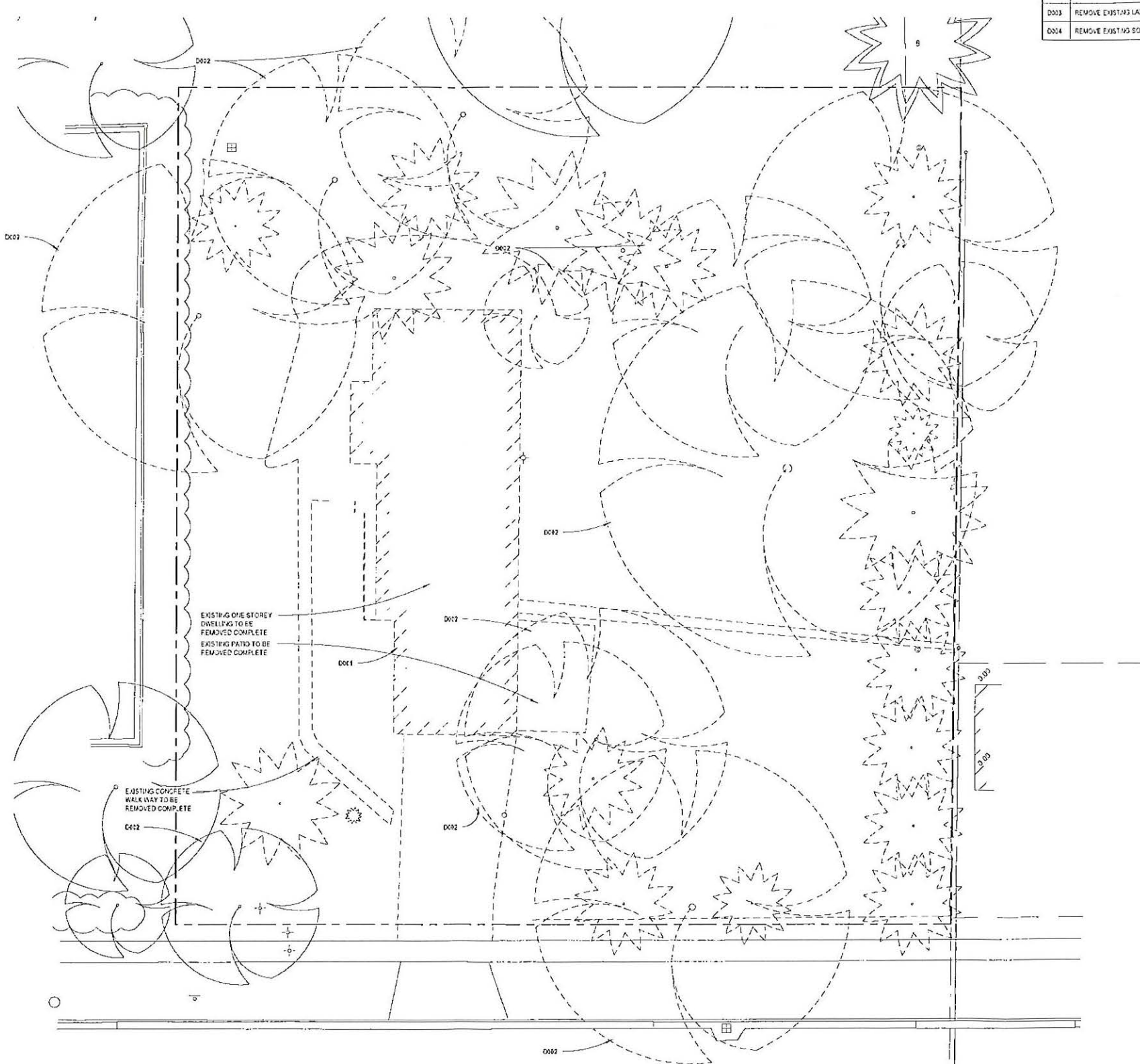
A401

1/13/2017 11:12 AM C:\Users\designer\OneDrive\Local Files\1529\mainfile_munherford.dwg

THE INFORMATION CONTAINED HEREIN IS FOR GENERAL INFORMATION ONLY AND IS NOT TO BE USED AS A BASIS FOR CONTRACTS OR OTHER LEGAL OBLIGATIONS. THE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF 182 PICKERING INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF 182 PICKERING INC. ARCHITECTS & ENGINEERS.

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR REPRODUCTION OF ANY KIND WITHOUT THE WRITTEN PERMISSION OF 182 PICKERING INC. ARCHITECTS & ENGINEERS.

DEMOLITION NOTES	
D001	EXISTING FOUNDATIONS BELOW SURFACE TO BE REMOVED COMPLETE.
D002	REMOVE EXISTING MOTTED TREES COMPLETE.
D003	REMOVE EXISTING LANDSCAPE & M.M.A.C.H. COMPLETE.
D004	REMOVE EXISTING SODD/TOP SOIL & STOCK PILE SOIL FOR FUTURE USE.



DEMOLITION SITE PLAN
SCALE 3/32" = 1'-0"

SCHEDULE "G" TO BY-LAW 2017-09
182 PICKERING INC.
John Laby or Steve Newman
TOWN OF AMHERSTBURG
Mayor- Aldo DiCarlo
Clerk- Paula Parker



The design and construction of this project was supervised by the Project Architect
Issued For: 07/14/2018
S/A: 20181218
CONSULTATION: 20170113
S/A-Per Cont'd: 20170113

Rev.	Description	Date

DEMOLITION SITE PLAN

182 PICKERING INC.
Amherstburg Residential Development
182 PICKERING DR., AMHERSTBURG, ON

Drawn By: _____
Checked By: _____

Project No: 1529
Sheet No: A102

C:\Users\designer07\Desktop\Local Files\1529\mmainfile_m\mherford\A102

THE INFORMATION ON THIS SHEET IS FOR YOUR INFORMATION ONLY. IT IS NOT TO BE USED AS A BASIS FOR ANY OTHER PROJECTS. THE DESIGNER ASSUMES NO LIABILITY FOR ANY DAMAGE TO PERSONS OR PROPERTY CAUSED BY THE USE OF THIS SHEET OR THE INFORMATION CONTAINED THEREON. THE USER OF THIS SHEET SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

Legend

- EXISTING TREE TO REMAIN
- PROPOSED TREE
- QUANTITY OF PLANTS
- KEY TO BOTANICAL NAME
- QUANTITY OF BOULDERS
- TYPE OF BOULDER
- FINE GRADE AND SOD
- FINE GRADE AND SEED

SCHEDULE "I" TO BY-LAW 2017-09

182 PICKERING INC.

John Lajoie or Steve Newman

TOWN OF AMHERSTBURG

Mayor: Aldo DiCarlo

Clerk: Paula Parker

Plant List

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QUAN
DECIDUOUS TREES					
A11	ACER FREEMANTII 'JEFFERSON'	ALTUN GLAZE MAPLE	7.5 cm	UB	2
A10	ACER PLATANOIDES 'DEBORAH'	DEBORAH MAPLE	7.5 cm	UB	2
C6F	CANNONUS BETULUS 'PASTORATA'	PYRAMIDAL EUROPEAN HORNBEAM	10 cm	UB	1
P18	PLATANUS ACENTFOLIA 'BLOODGOOD'	BLOODGOOD LONDON PLANETREE	7.5 cm	UB	1
P19	PRUNUS GALEYANA 'REDSPICE'	REDSPICE FLOWERING PEAR	6.0 cm	UB	2
S19	STYNGIA RETICULATA 'IVORY SILK'	IVORY SILK TREE LILAC	6.0 cm	UB	3
T18	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN	7.5 cm	UB	3
CONIFEROUS TREES					
P15	PICEA GLAUCA	WHITE SPRUCE	16.0 cm	UB	3
DECIDUOUS SHRUBS					
B10	BENBERG'S THAMNOCYCLUS 'CONCORD'	CONCORD BURNINGBUSH	3.0 cm	POT	5
R14L	RUBUS AROMATICUS 'GROU-LOU'	GROU-LOU RASBERRY	4.0 cm	POT	5
S05F	SPHRAEA BIFLORIDA 'GOLDPLATE'	GOLDPLATE SPHREA	4.0 cm	POT	5
S19	STYNGIA MEYERI 'PALIDY'	PALIDY DWARF LILAC	3.0 cm	POT	4
L17	LEIBELIA FLORIDA 'VAREGATA'	VAREGATED LEIGELIA	6.0 cm	POT	13
EVERGREENS					
B07	BUXUS GREEN VELVET	GREEN VELVET BOXYWOOD	4.0 cm	POT	5
T10	TAXUS MEDIA 'DENS FORESTIS'	DENSE YEW	3.0 cm	POT	8
T18	TILIA OCCIDENTALIS 'NIGRA'	BLACK CEDAR	1.0 cm	POT	6
PERENNIALS & ORNAMENTAL GRASS					
C18F	CALAMAGROSTIS ADULTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	7.0 cm	POT	22
HC	HEUCHERA 'CRIMSON'	CRIMSON CORAL BELLS	7.0 cm	POT	23
HCF	HEPEROCALLIS 'CHILDREN'S FESTIVAL'	CHILDREN'S FESTIVAL DAYLILY	7.0 cm	POT	28
L00	HEPEROCALLIS 'DOUBLE CUTIE'	DOUBLE CUTIE DAYLILY	7.0 cm	POT	28
BOULDERS					
L11	WATERLOO LIMESTONE BOULDER		2000 lbs.		1

THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF THE PLANTS. REPORT ANY DISCREPANCY TO THE LANDSCAPE ARCHITECT. IN THE CASE OF A DISCREPANCY, THE QUANTITY OF PLANTS ON THE LANDSCAPE PLAN SUPERSEDES THE QUANTITY SHOWN IN THE PLANT LIST.

General Landscape Notes

FINE GRADE ALL AREAS DESIGNATED FOR SEED OR SOD, REMOVING ALL EXISTING VEGETATION, DEBRIS, AND STONES WHETHER IMPORTED OR NATIVE TO THE SITE. SEED OR SOD ALL SITE AREAS AS INDICATED ON THE LANDSCAPE PLAN EXCEPT THOSE WHERE PLANTING BEDS, PAVEMENT, OR BUILDINGS ARE INDICATED. EXTEND SOD TO PROPERTY LINES FOR INTERIOR LOT LINES AND TO THE CURB FOR STREET FRONTAGE. APPLY A ROOTING FERTILIZER PRIOR TO INSTALLING SOD OR SEED. RESTORE ANY AREAS OF THIS SITE OR ADJACENT PROPERTIES RESULTING FROM CONSTRUCTION OF THIS PROJECT.

SOD/SEED ESTABLISHMENT AND PLANTING BED MAINTENANCE:

PROVIDE CARE AND PROTECTION TO ENSURE PROPER AND FULL ESTABLISHMENT OF ALL TURF AREAS. REPAIR ALL BARE AREAS. CARE OF SOD AREAS WILL EXTEND FROM THE TIME OF INSTALLATION TO THE FIRST CUT BY THE CONTRACTOR. AT TIME OF FIRST CUT, REMOVE WEEDS THAT HAVE COME THROUGH THE SOD FROM THE SOIL AND REMOVE ANY WEEDS IN THE PLANTING BEDS (SEED BEDS 30 DAYS AFTER INSTALLATION IF NO SOD HAS BEEN INSTALLED).

SPREAD EXISTING TOPSOIL OVER SMOOTH SUBGRADE IN ORDER TO ACHIEVE A 4" MINIMUM DEPTH FOR ALL TURF AREAS. PROVIDE ADDITIONAL TOPSOIL AS REQUIRED.

ADVISE THE LANDSCAPE ARCHITECT OR PROJECT MANAGER OF THE LOCATION OF THE STOCKPILE AND ALLOW ADEQUATE TIME FOR TESTING PRIOR TO IMPORTING SOIL.

REMOVE ALL DEBRIS FROM AND ENSURE THERE IS FRIABLE TOPSOIL TO A DEPTH OF 18" IN ALL PLANTING BEDS. SUPPLY ADDITIONAL TOPSOIL AS REQUIRED.

INSTALL 3" DEPTH SMALL BEACH PEBBLE IN ALL PLANTING BEDS AND CANADA RED MULCH IN THE ROOT SAUCERS OF TREES. MULCH SHOULD BE 1/2" BELOW THE ADJACENT SURFACE WITHIN 24" OF THE EDGE OF THE BED. INSTALL A WEED CONTROL BARRIER CONSISTING OF LANDSCAPE FABRIC BENEATH THE BEACH PEBBLE.

FOR ALL EXISTING TREES WITHIN THE PROJECT AREA, REMOVE EXISTING TURF IN A CIRCLE AROUND THE BASE OF THE TREE (OR CREATE NEW IF NEW TURF IS BEING ESTABLISHED) AND INSTALL 3" DEPTH OF CANADA RED MULCH. USE THE FOLLOWING GUIDELINES TO DETERMINE THE DIAMETER OF THE TURF TO BE REMOVED AND MULCHED AROUND EXISTING TREES:

TREE DIAMETER	DIAMETER OF CIRCLE TO BE MULCHED
LESS THAN 12"	48"
GREATER THAN 12"	DIAMETER OF TREE PLUS 4'-0"

SUPPLY AND INSTALL COMMERCIAL GRADE POLYEDGER WHERE PLANTING BEDS ARE ADJACENT TO TURF. SECURE EACH 20' LENGTH OF POLYEDGER WITH 6 STEEL PEGS AND JOIN WITH A PLASTIC CONNECTOR.

WHERE LEAVES THROUGH DISCHARGE INTO PLANTING BEDS, SUPPLY AND INSTALL CONCRETE SPLASH BLOCKS. ADJUST PLANTING AS REQUIRED TO ENSURE THAT THE PLANTS WILL NOT BE IN LINE WITH THE WATER DISCHARGED FROM THE DOWN SPOUTS.

GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM ACCEPTANCE. REPLACE ALL DEAD OR LEAK PLANT MATERIAL PROMPTLY UPON DIRECTED BY THE OWNER OR PROJECT MANAGER. GUARANTEE REPLACEMENT PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM PLANTING. PLANTS DAMAGED DUE TO VANDALISM ARE NOT GUARANTEED.

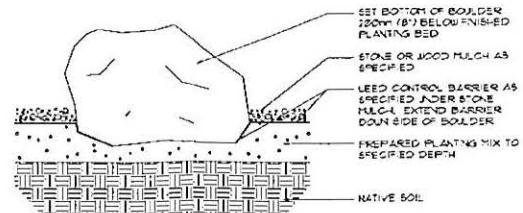
VERIFY QUANTITIES OF PLANTS INDICATED IN THE PLANT KEYS AND PLANT LIST WITH THOSE SHOWN ON THE PLAN. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO TENDERING.

ALL WORK TO BE PERFORMED IN COMPLIANCE WITH THE HEALTH AND SAFETY ACT 1990, ONTARIO REG. 213/91, 714/92 AND LATEST REVISIONS.

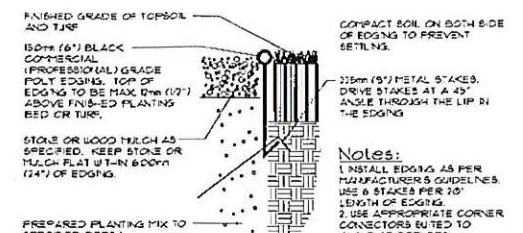
DETERMINE AND VERIFY THE LOCATION AND EXISTENCE OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

ADVISE THE LANDSCAPE ARCHITECT OF ANY CONFLICT BETWEEN THE PROPOSED WORK AND EXISTING UTILITIES. REPAIR ANY AND ALL DAMAGE DONE TO THIS SITE OR ADJACENT SITES RESULTING FROM CONSTRUCTION OF THIS PROJECT.

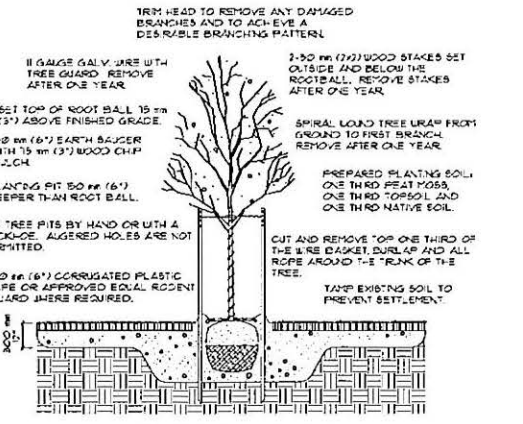
VERIFY THAT ALL EXISTING SITE CONDITIONS ARE AS SHOWN ON THIS PLAN.



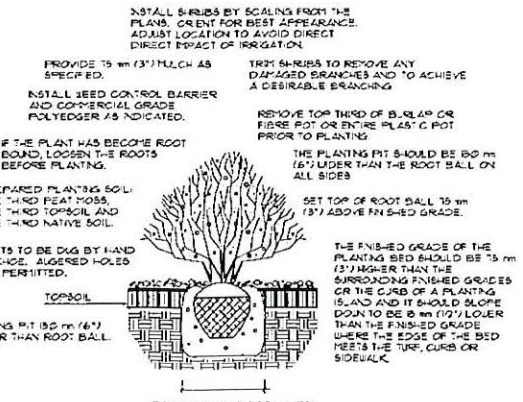
Boulder Installation N15



Poly Edging Installation N15

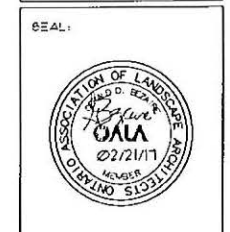


Deciduous Tree Planting N15



Shrub Planting N15

BW Bozic & White
Planners
Landscape Architects
Creating Environments
3514 Wilket Rd., Unit 1A
Windsor, ON N8W 3S4
p. 519 959 6844
f. 519 956 4088
bwland@bwland.ca
www.bwland.ca



ISSUED:

REVISIONS:

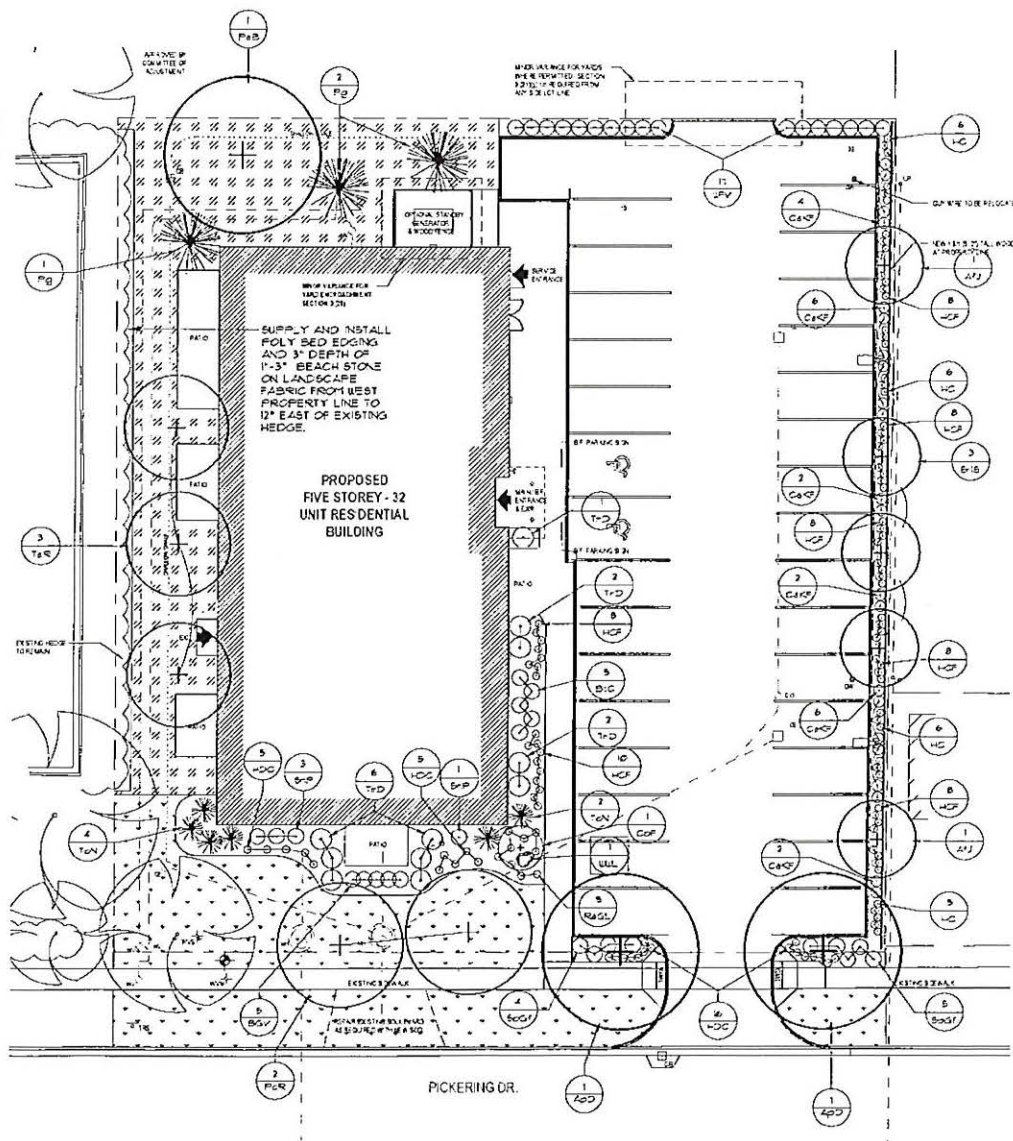
All existing specifications and other notes contained on the drawings are hereby incorporated into this drawing by reference unless otherwise stated.

PROJECT:
AMHERSTBURG
RESIDENTIAL
DEVELOPMENT
182 PICKERING DR.
AMHERSTBURG, ONTARIO

DRAWING TITLE:
LANDSCAPE
PLAN AND
DETAILS

SCALE:
As Noted
DRAWN BY:
GDB
CHECKED BY:
FLB
APPROVED BY:

DATE: Date
DRAWING NO.:
LA-1
CAD file: 1228 Inds R2



LANDSCAPE PLAN SCALE 1" = 16'-0"



ALEO ASSOCIATES INC.
CONSULTING ENGINEERS

**STORMWATER MANAGEMENT REPORT
FOR THE PROPOSED RESIDENTIAL DEVELOPMENT
LOCATED AT 182 PICKERING DRIVE,
AMHERSTBURG, ONTARIO**

FOR:

**ARCHITECTURA INC.
180 Eugenie St. W.
Windsor, Ontario
N8X 2X6**

BY:

**ALEO ASSOCIATES INC.
804 Erie Street East, Suite 100
Windsor, Ontario
N9A 3Y4**



SCHEDULE "J" TO BY-LAW 2017-09

182 PICKERING INC.

John Lajoy or Steve Newman

TOWN OF AMHERSTBURG

Mayor Aldo DiCarlo

Clerk Paula Parker

DATE: JANUARY 13, 2017

PROJECT No.: 6230



ALEO ASSOCIATES INC.
CONSULTING ENGINEERS

6230_SWM.docx

January 13, 2017

Corporation of the Town of Amherstburg
Engineering and Public Works Department
271 Sandwich Street South
Amherstburg, Ontario, N9V 2A5

ATT: ANTONIETTA GIOFU, P.ENG.

**RE: STORMWATER MANAGEMENT REPORT FOR THE PROPOSED RESIDENTIAL DEVELOPMENT
LOCATED AT 182 PICKERING DRIVE, AMHERSTBURG, ONTARIO**

Dear Mrs. Antonietta Giofu,

We are pleased to submit our stormwater management report for the proposed residential development located at 182 Pickering Drive in the Town of Amherstburg.

The proposed drainage area is 0.55 acres. The site drainage discharges to the existing 48" diameter municipal concrete storm sewer, which is located south of the site. The developed runoff coefficient for the stormwater management boundary area is 0.70.

We have carried out storm detention design for a 1:5 year and 1:100 year frequency storm event. The pre-development runoff coefficient was determined to be 0.30. The new development flow will be restricted to the pre-development flow by a Tempest MHF (Medium to High Flow Rate) Flow Inlet Control Device by Ipex. The inlet control device plug will be installed on the 8" dia. outlet pipe inside the storm sampling manhole. See product submittal package attached. Storage has been provided above the catchbasins on the surface of the asphalt parking lot, and within the storm sewer pipe and structures. Please see the attached calculations and drawings showing the storage in the parking area for both the 1:5 year and 1:100 year frequency storm events. The 1:5 year and 1:100 year storage elevations are 587.30' and 587.80', respectively.

If you have any questions or concerns please contact me.

Yours Very Truly,


Piero A. Aleo, P.Eng.

ALEO ASSOCIATES INC.

ALEO ASSOCIATES INC., CONSULTING ENGINEERS

804 ERIE STREET EAST, SUITE 100, WINDSOR, ONTARIO, CANADA, N9A 3Y4

PROJECT NAME: Amherstburg Residential Development
PROJECT No.: 6230
PREPARED BY: J.P.A.
CHECKED BY: P.A.A.
DATE: January 13, 2017
FILE NAME: 6230_1-5yr_Det_2017.01.11.xlsx

AMHERSTBURG RESIDENTIAL DEVELOPMENT 182 PICKERING DRIVE, AMHERSTBURG, ONTARIO STORM WATER MANAGEMENT CALCULATIONS FOR 1:5 YEAR FREQUENCY STORM

A. PRE-DEVELOPED SITE CONDITIONS:

Total Proposed Drainage Area =	23,817 sq.ft	0.55 acres	Cund
Total Existing Building Roof Area =	2,340 sq.ft	0.05 acres	C = 0.95
Total Existing Concrete Pavement =	246 sq.ft	0.01 acres	C = 0.90
Total Existing Gravel Pavement =	1,000 sq.ft	0.02 acres	C = 0.70
Total Existing Grass Area =	20,231 sq.ft	0.46 acres	C = 0.20

B. PROPOSED SITE CONDITIONS:

Total Proposed Drainage Area =	23,817 sq.ft	0.55 acres	Cdev
Total Proposed Building Roof Area =	6,070 sq.ft	0.14 acres	C = 0.95
Total Proposed Asphalt Area =	8,987 sq.ft	0.21 acres	C = 0.90
Total Proposed Concrete Area =	1,436 sq.ft	0.03 acres	C = 0.90
Total Proposed Grassed Area =	7,324 sq.ft	0.17 acres	C = 0.20

C. RUNOFF COEFFICIENTS:

EXISTING(allowable):
$$Cund = \frac{(2,340 \text{ ft}^2 \times 0.95) + (246 \text{ ft}^2 \times 0.90) + (1,000 \text{ ft}^2 \times 0.70) + (20,231 \text{ ft}^2 \times 0.20)}{23,817 \text{ sq.ft.}}$$

Cund = 0.30

PROPOSED:

$$Cdev = \frac{(6,070 \text{ ft}^2 \times 0.95) + (8,987 \text{ ft}^2 \times 0.90) + (1,436 \text{ ft}^2 \times 0.90) + (7,324 \text{ ft}^2 \times 0.20)}{23,817 \text{ sq.ft.}}$$

Cdev = 0.70

D. PRE-DEVELOPED (ALLOWABLE) DISCHARGE FOR 1:5 YEAR FREQUENCY STORM:

Average Runoff Coefficient, Cund =	0.30
Tc =	20 minutes
Intensity, i =	67.55 mm/hr
Intensity, i =	2.66 in/hr

Where Intensity, $i = 31.0 * (T/60)^{-0.709}$,
for CITY OF WINDSOR 1:5 year frequency storm

$$\begin{aligned} Qund &= Cund * i * A \\ &= 0.30 * i * 0.55 \\ &= 0.165 * i \\ &= 0.44 \quad \text{cfs} \end{aligned}$$

ALEO ASSOCIATES INC., CONSULTING ENGINEERS

804 ERIE STREET EAST, SUITE 100, WINDSOR, ONTARIO, N9A 3Y4, TEL.: (519)254-7926, FAX: (519)254-0895

E. POST-DEVELOPMENT DISCHARGE FOR 1:5 YEAR FREQUENCY STORM:

Average Runoff Coefficient, $C_{dev} = 0.70$
 $T_c = 20$ minutes
 Intensity, $i = 67.55$ mm/hr
 Intensity, $i = 2.66$ in/hr

Where Intensity, $i = 31.0 * (T/60)^{-0.709}$,
 for CITY OF WINDSOR 1:5 year frequency storm

$$\begin{aligned} Q_{dev} &= C_{dev} * i * A \\ &= 0.70 * i * 0.55 \\ &= 0.385 * i \\ &= 1.02 \quad \text{cfs} \end{aligned}$$

F. STORM VOLUME CALCULATIONS:

Duration (min.) t	Intensity* (in/hr) i	$Q_d=C_iA$ $Q_d=0.385*i$ (cfs)	Storm Volume (cu.ft.) $V_1=Q_{dev} t 60$	Relief Volume** (cu.ft.) $V_2 = Q_{und} t 60$	Storage (cu.ft.) $V_1 - V_2$	Max ***
5	7.11	2.74	821	132	689	
10	4.35	1.67	1,004	263	741	***
15	3.26	1.26	1,130	395	735	
20	2.66	1.02	1,229	527	702	
25	2.27	0.87	1,311	658	653	
30	2.00	0.77	1,383	790	593	
35	1.79	0.69	1,446	922	524	
40	1.63	0.63	1,503	1,053	450	
45	1.50	0.58	1,556	1,185	371	

* Where Intensity, $I = 31.0 * (T/60)^{-0.709}$, for AES (2014) 1:5 year frequency storm

** $Q_{und} = 0.44$ cfs

*** Maximum volume to be stored = **741 cu.ft.**

G. STORAGE CALCULATIONS:

Maximum 1:5 year (storage) water surface elev. = 587.30'

Top of lowest catch basin grate = 586.80'

Depth above lowest catch basin = 0.50' (6")

Storage is accommodated on the asphalt surface above the cb's.

Storage above cb's:

Total storage above the cb's to elevation 587.30' is 675 cu.ft. (See Sketch)

Storage in storm sewer pipe:

Pipe dia.	Length (ft)	Volume (cu.ft.)
6"	204	40
6" perf.	200	39
10"	15	8

Total storage in storm sewer pipe is 87 cu.ft.

ALEO ASSOCIATES INC., CONSULTING ENGINEERS

804 ERIE STREET EAST, SUITE 100, WINDSOR, ONTARIO, N9A 3Y4, TEL.: (519)254-7926, FAX: (519)254-0895

Storage in storm structures:

1 - 4'-0" dia. storm manholes with a depth of 7.3'

Volume of storage in manholes = $1 \times 12.56 \text{ ft}^2 \times 7.3' = 92 \text{ cu.ft.}$

2 - catch basins with an average depth of 3.0'

Volume = $2 \times 2' \times 2' \times 3.0' = 24 \text{ cu.ft.}$

Total storage in storm structures is 116 cu.ft.

The minimum volume of storage provided is 878 cu.ft. > max. volume to be stored is 741 cu.ft.

H. FLOW RESTRICTOR

Allowable discharge (Q_{und}) = 0.44 cfs

1:5 year (storage) water surface elev. = 587.30'

Invert of 8" dia. storm sewer at sampling manhole = 579.00'

Elevation at centre of orifice = $579.00' + 0.167' = 579.167'$ (Assumed 4" dia. orifice)

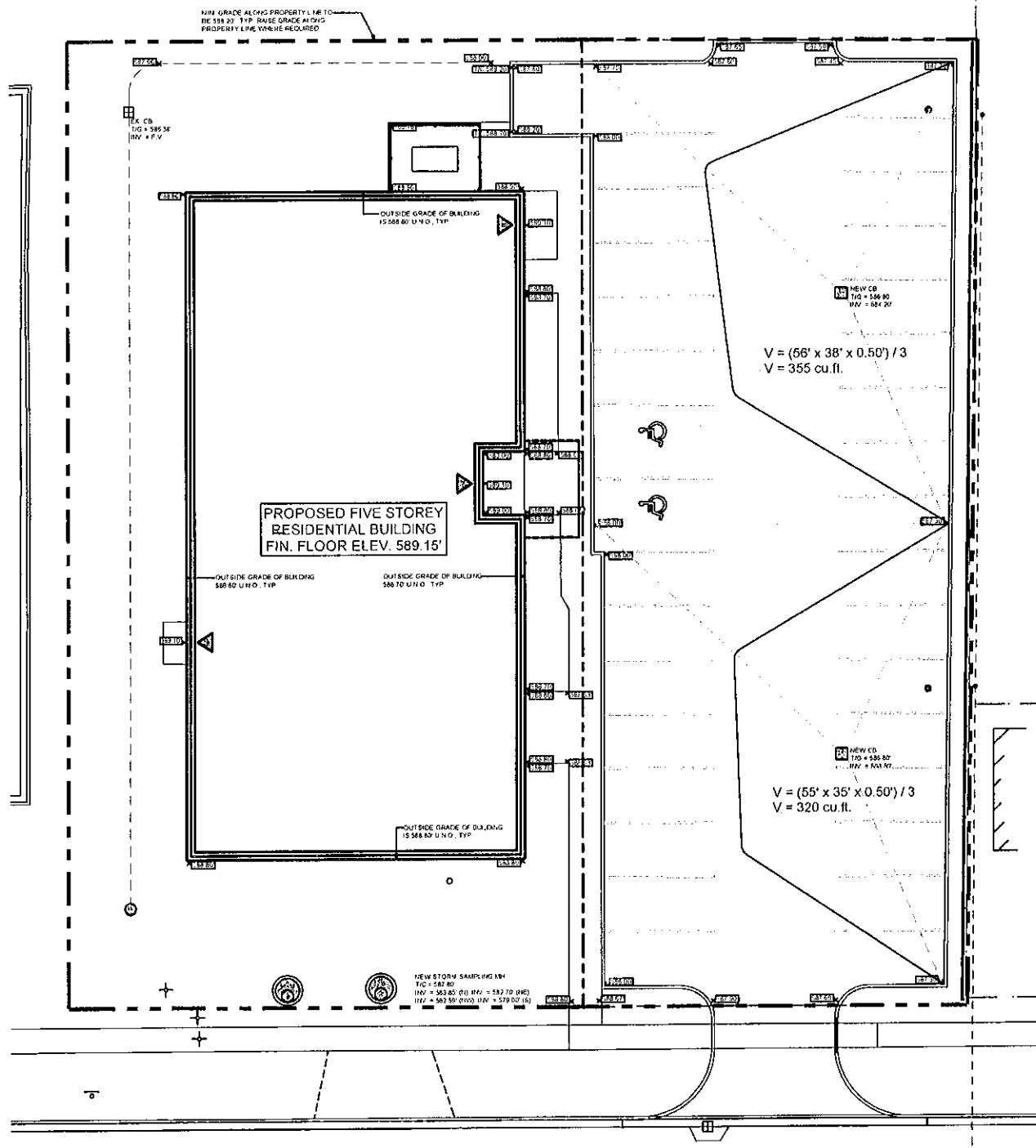
Head (H) = $587.30' - 579.167' = 8.13'$

$Q = 0.60 \cdot A \cdot \sqrt{2 \cdot g \cdot H}$

$A = Q / (0.60 \cdot \sqrt{2 \cdot g \cdot H}) = 0.44 \text{ cfs} / (0.60 \cdot \sqrt{2 \cdot 32.2 \text{ ft/s}^2 \cdot 8.13'}) = 0.03205 \text{ ft}^2$

Dia. of orifice = $\sqrt{(4 \cdot A) / 3.1416} = 0.202'$ (2.4")

Therefore, a 2.4" dia. orifice is required to restrict the flow for a 1:5 year frequency storm event.



1:5 YEAR STORM STORAGE - ELEVATION 587.30'
 STORAGE ON ASPHALT SURFACE = 675 cu.ft. (min.)

ALEO ASSOCIATES INC., CONSULTING ENGINEERS

804 ERIE STREET EAST, SUITE 100, WINDSOR, ONTARIO, CANADA, N9A 3Y4

PROJECT NAME: Amherstburg Residential Development
PROJECT No.: 6230
PREPARED BY: J.P.A.
CHECKED BY: P.A.A.
DATE: January 13, 2017
FILE NAME: 6230_1-100yr_Det_2017.01.11.xlsx

AMHERSTBURG RESIDENTIAL DEVELOPMENT 182 PICKERING DRIVE, AMHERSTBURG, ONTARIO STORM WATER MANAGEMENT CALCULATIONS FOR 1:100 YEAR FREQUENCY STORM

A. PRE-DEVELOPED SITE CONDITIONS:

Total Proposed Drainage Area =	23,817 sq.ft	0.55 acres	Cund	
Total Existing Building Roof Area =	2,340 sq.ft	0.05 acres	C =	0.95
Total Existing Concrete Pavement =	246 sq.ft	0.01 acres	C =	0.90
Total Existing Gravel Pavement =	1,000 sq.ft	0.02 acres	C =	0.60
Total Existing Grass Area =	20,231 sq.ft	0.46 acres	C =	0.20

B. PROPOSED SITE CONDITIONS:

Total Proposed Drainage Area =	23,817 sq.ft	0.55 acres	Cdev	
Total Proposed Building Roof Area =	6,070 sq.ft	0.14 acres	C =	0.95
Total Proposed Asphalt Area =	8,987 sq.ft	0.21 acres	C =	0.90
Total Proposed Concrete Area =	1,436 sq.ft	0.03 acres	C =	0.90
Total Proposed Grassed Area =	7,324 sq.ft	0.17 acres	C =	0.20

C. RUNOFF COEFFICIENTS:

EXISTING(allowable):
$$C_{und} = \frac{(2,340 \text{ ft}^2 \times 0.95) + (246 \text{ ft}^2 \times 0.90) + (1,000 \text{ ft}^2 \times 0.70) + (20,231 \text{ ft}^2 \times 0.20)}{23,817 \text{ sq.ft.}}$$

$C_{und} = 0.30$

PROPOSED:
$$C_{dev} = \frac{(6,070 \text{ ft}^2 \times 0.95) + (8,987 \text{ ft}^2 \times 0.90) + (1,436 \text{ ft}^2 \times 0.90) + (7,324 \text{ ft}^2 \times 0.20)}{23,817 \text{ sq.ft.}}$$

$C_{dev} = 0.70$

D. PRE-DEVELOPED (ALLOWABLE) DISCHARGE FOR 1:5 YEAR FREQUENCY STORM:

Average Runoff Coefficient, C_{und} =	0.30
T_c =	20 minutes
Intensity, i =	67.55 mm/hr
Intensity, i =	2.66 in/hr

Where Intensity, $i = 31.0 * (T/60)^{-0.709}$,
for CITY OF WINDSOR 1:5 year frequency storm

$$\begin{aligned} Q_{und} &= C_{und} * i * A \\ &= 0.30 * i * 0.55 \\ &= 0.165 * i \\ &= 0.44 \quad \text{L/s} \end{aligned}$$

ALEO ASSOCIATES INC., CONSULTING ENGINEERS

804 ERIE STREET EAST, SUITE 100, WINDSOR, ONTARIO, N9A 3Y4, TEL.: (519)254-7926, FAX: (519)254-0895

E. POST-DEVELOPMENT DISCHARGE FOR 1:100 YEAR FREQUENCY STORM:

Average Runoff Coefficient, Cdev = 0.70
 Tc = 20 minutes
 Intensity, i = 109.47 mm/hr
 Intensity, i = 4.31 in/hr

Where Intensity, $i = 50.4 * (T/60)^{-0.706}$,
 for CITY OF WINDSOR 1:100 year frequency storm

$$\begin{aligned} Q_{dev} &= C_{dev} * i * A \\ &= 0.70 * i * 0.55 \\ &= 0.385 * i \\ &= 1.66 \quad \text{L/s} \end{aligned}$$

F. STORM VOLUME CALCULATIONS:

Duration (min.) t	Intensity* (in/hr) i	Qd=CiA Qd=0.385*i (cfs)	Storm Volume (cu.ft.) V1=Qdev t 60	Relief Volume** (cu.ft.) V2 = Qund t 60	Storage (cu.ft.) V1 - V2	Max ***
5	11.47	4.42	1,325	132	1,193	
10	7.03	2.71	1,624	263	1,361	
15	5.28	2.03	1,830	395	1,435	
20	4.31	1.66	1,991	527	1,464	
25	3.68	1.42	2,126	658	1,468****	
30	3.24	1.25	2,243	790	1,453	
35	2.90	1.12	2,347	922	1,426	
40	2.64	1.02	2,441	1,053	1,388	
45	2.43	0.94	2,527	1,185	1,342	
50	2.26	0.87	2,607	1,316	1,290	
55	2.11	0.81	2,681	1,448	1,233	
60	1.98	0.76	2,750	1,580	1,170	

* Where Intensity, $i = 50.4 * (T/60)^{-0.706}$, for AES (2014) 1:100 year frequency storm

** Qund = 0.44 L/s

*** Maximum volume to be stored = 1,468 cu.ft.

G. STORAGE CALCULATIONS:

Maximum 1:100 year (storage) water surface elev. = 587.80'

Top of lowest catch basin grate = 586.80'

Depth above lowest catch basin = 1.0' (12")

Storage is accommodated on the asphalt surface above cb's.

Storage above cb's:

Total storage above the cb's to elevation 587.80' is 2,425 cu.ft. (See Sketch)

Storage in storm sewer pipe:

Pipe dia.	Length (ft)	Volume (cu.ft.)
6"	204	40
6" perf.	200	39
10"	15	8

Total storage in storm sewer pipe is 87 cu.ft.

ALEO ASSOCIATES INC., CONSULTING ENGINEERS

804 ERIE STREET EAST, SUITE 100, WINDSOR, ONTARIO, N9A 3Y4, TEL.: (519)254-7926, FAX: (519)254-0895

Storage in storm structures:

1 - 4'-0" dia. storm manholes with a depth of 7.3'

Volume of storage in manholes = $1 \times 12.56 \text{ ft}^2 \times 7.3' = 92 \text{ cu.ft.}$

2 - catch basins with an average depth of 3.0'

Volume = $2 \times 2' \times 2' \times 3.0' = 24 \text{ cu.ft.}$

Total storage in storm structures is 116 cu.ft.

The minimum volume of storage provided is 2,628 cu.ft. > max. volume to be stored is 1,468 cu.ft.

H. FLOW RESTRICTOR

Allowable discharge (Q_{und}) = 0.44 cfs

1:100 year (storage) water surface elev. = 587.80'

Invert of 8" dia. storm sewer at sampling manhole = 579.00'

Elevation at centre of orifice = $579.00' + 0.167' = 579.167'$ (Assumed 4" dia. orifice)

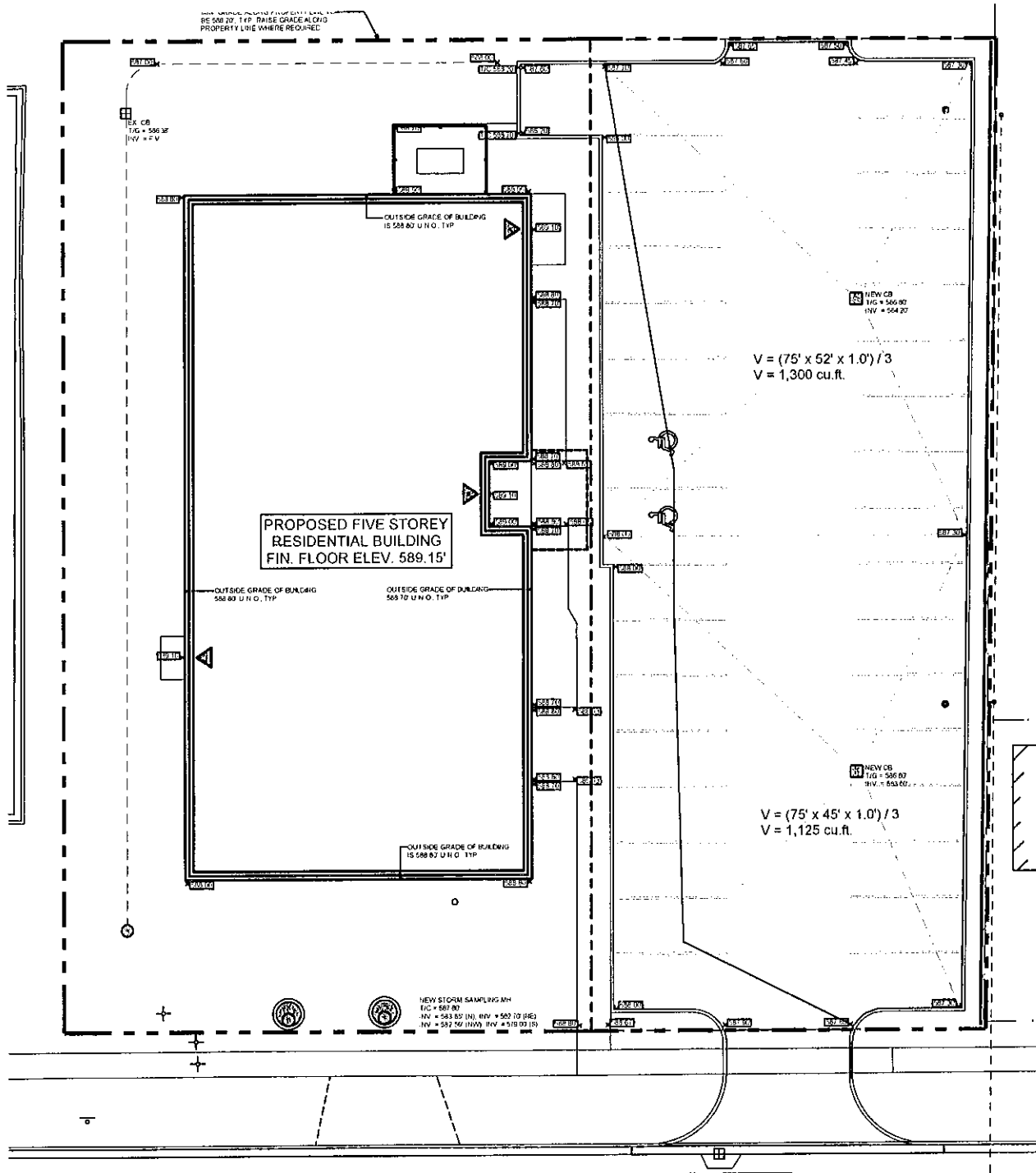
Head (H) = $587.80' - 579.167' = 8.63'$

$Q = 0.60 \cdot A \cdot \sqrt{2 \cdot g \cdot H}$

$A = Q / (0.60 \cdot \sqrt{2 \cdot g \cdot H}) = 0.44 \text{ cfs} / (0.60 \cdot \sqrt{2 \cdot 32.2 \text{ ft/s}^2 \cdot 8.63'}) = 0.0311 \text{ ft}^2$

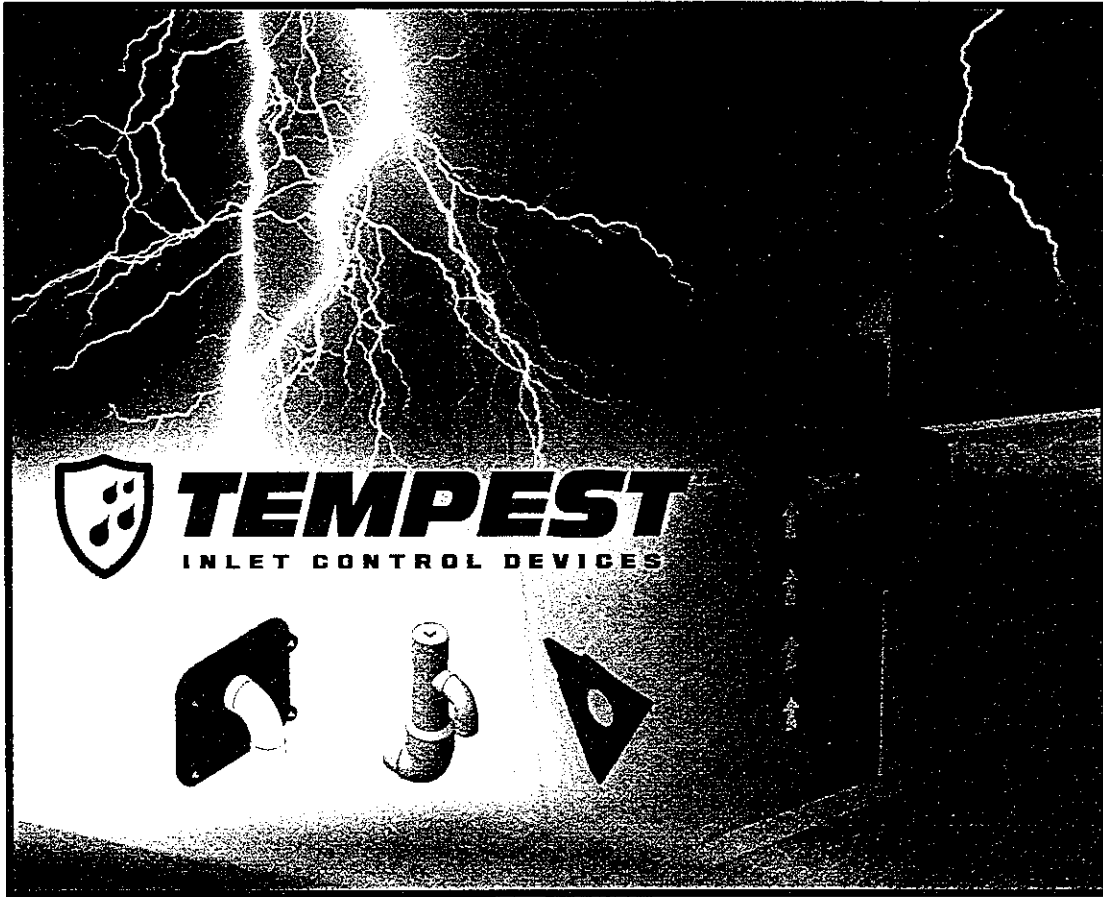
Dia. of orifice = $\sqrt{(4 \cdot A) / 3.1416} = 0.20' (2.4")$

Therefore, a 2.4" dia. orifice is required to restrict the flow for a 1:100 year frequency storm event.



1:100 YEAR STORM STORAGE - ELEVATION 587.80'
STORAGE ON ASPHALT SURFACE = 2,425 cu.ft. (min.)

TEMPEST Product Submittal Package



Date: January 16, 2017

Customer: Aleo Associates Inc.

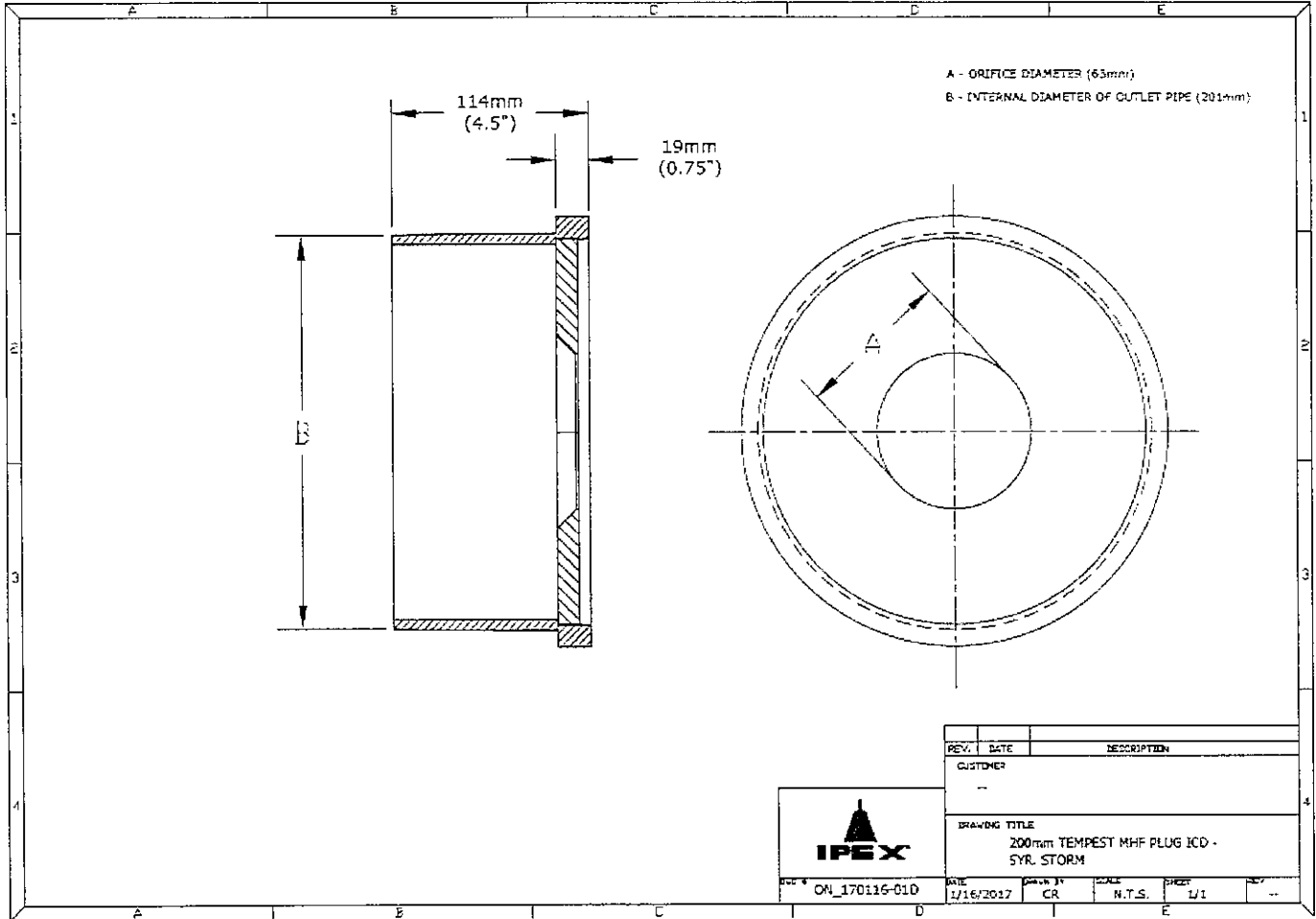
Contact: Jean-Paul Aleo

Location: Amherstburg

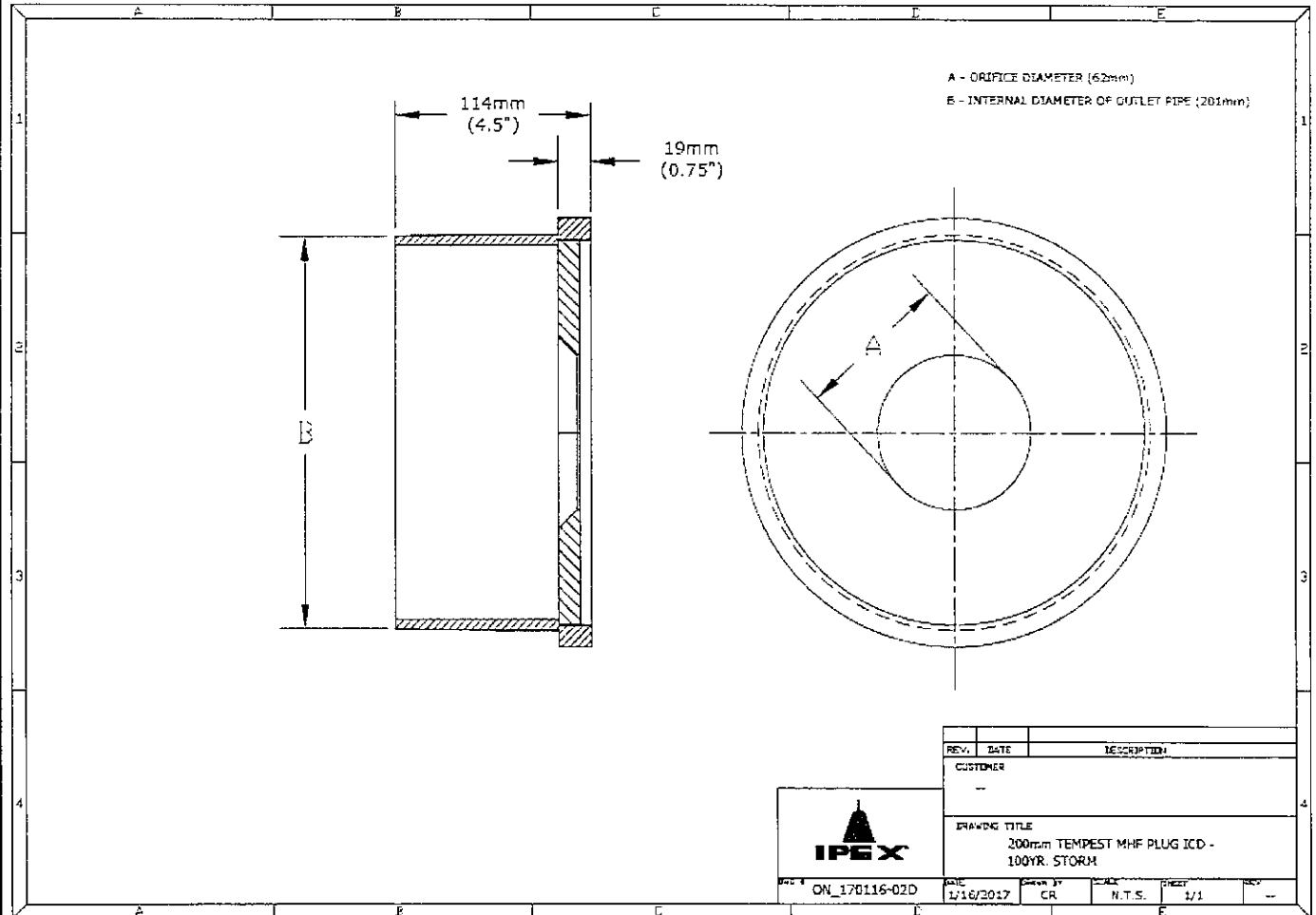
Project Name: Residential Development



Tempest MHF Plug ICD Shop Drawing – 5yr. storm



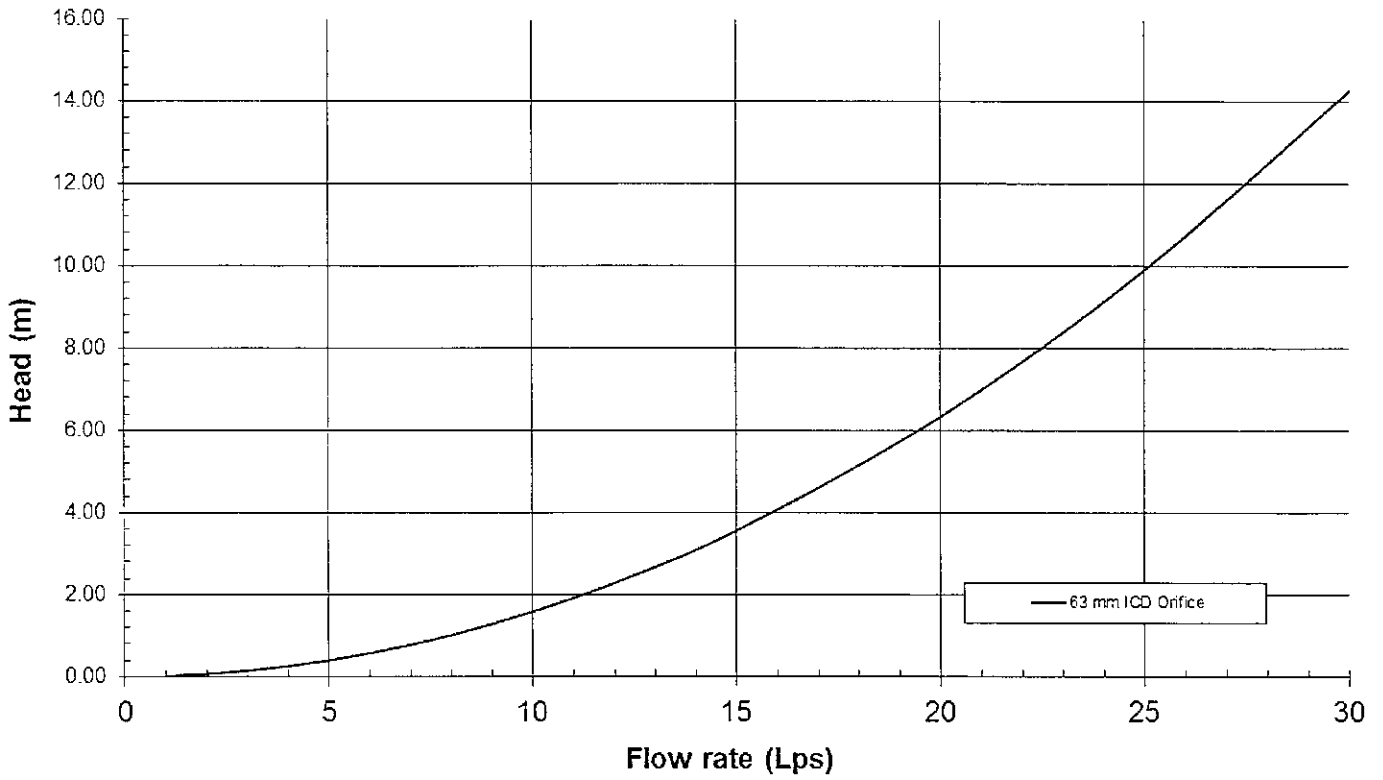
Tempest MHF Plug ICD Shop Drawing – 100yr. storm



MHF Plug ICD Flow Curve – 5yr. storm

Flow: 12.5 L/s
Head: 2.47 m

TEMPEST HF, HF Sump & MHF flow curve
(For flow rates <30 Lps) #

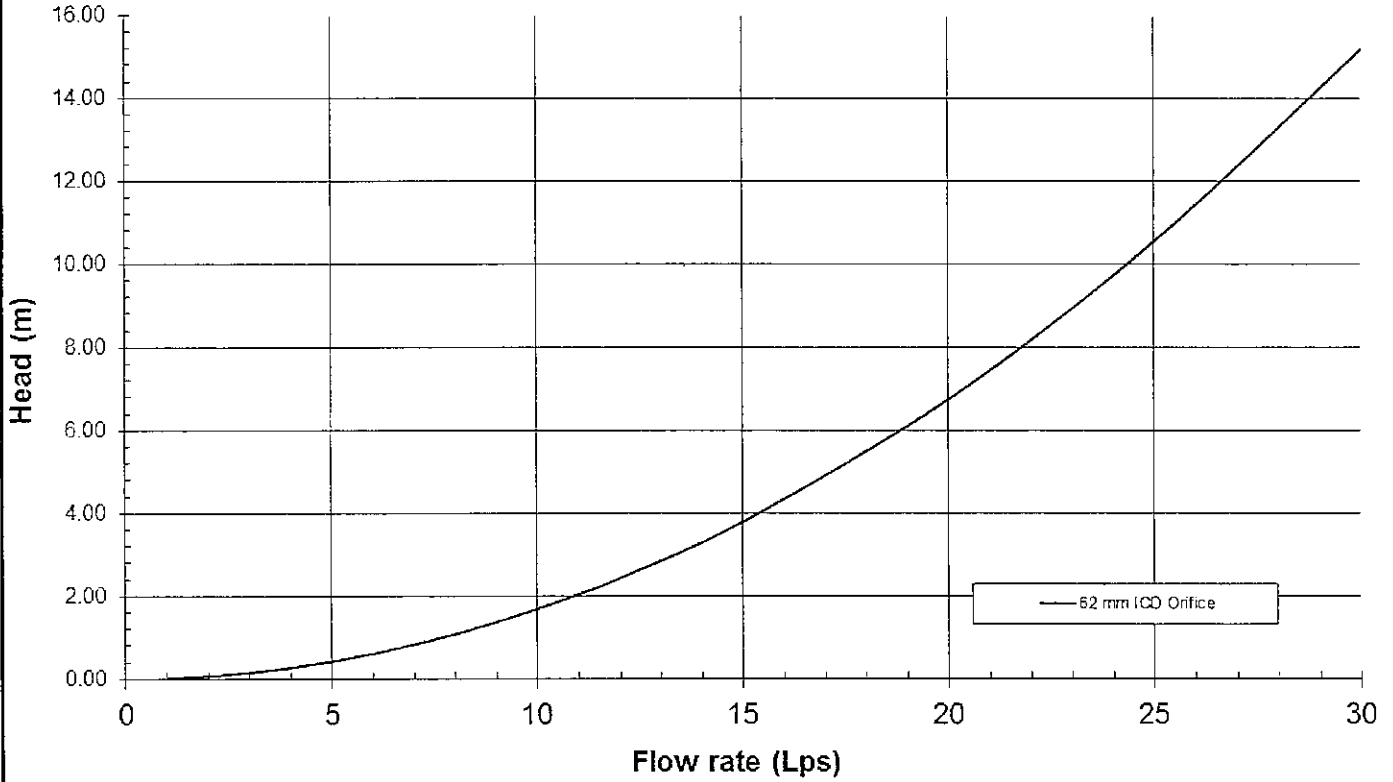


MHF Plug ICD Flow Curve – 100yr. storm

Flow: 12.5 L/s
Head: 2.63 m

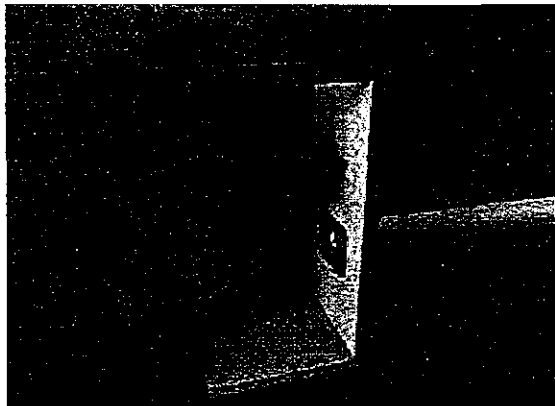
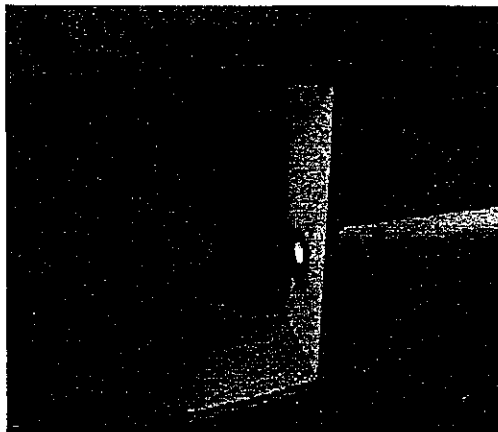
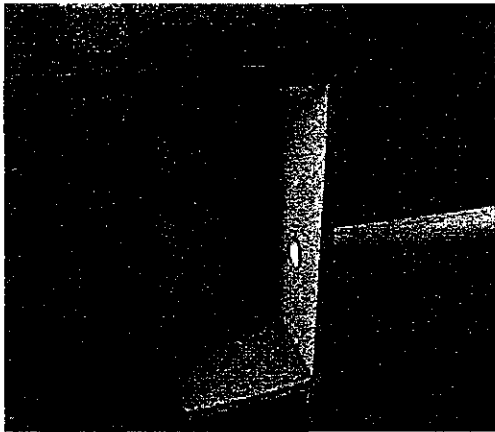
TEMPEST HF, HF Sump & MHF flow curve
(For flow rates <30 Lps)

#



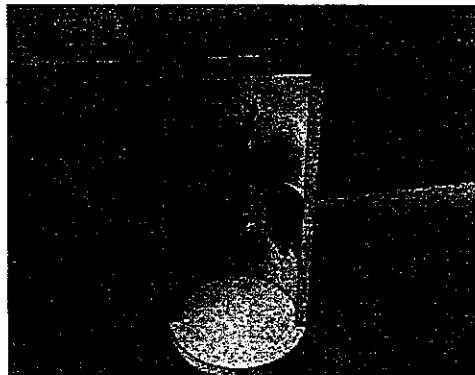
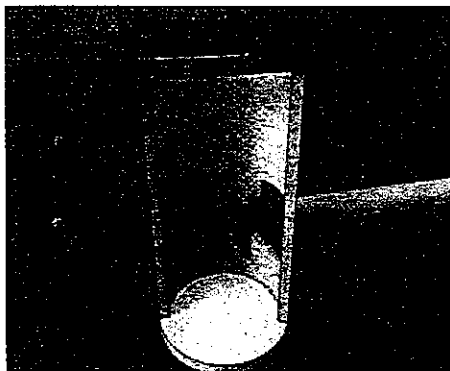
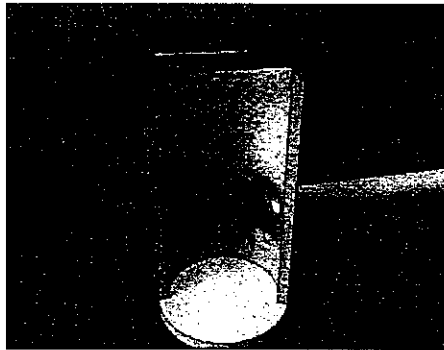
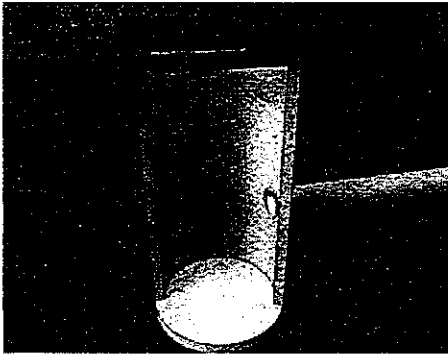
Square CB Installation Notes:

1. Materials and tooling verification:
 - Tooling: impact drill, 3/8" concrete bit, torque wrench for 9/16" nut, hand hammer, level, and marker.
 - Material: (4) concrete anchor 3/8x3-1/2, (4) washers, (4) nuts
2. Use the mounting wall plate to locate and mark the hole (4) pattern on the catch basin wall. You should use a level to ensure that the plate is at the horizontal.
3. Use an impact drill with a 3/8" concrete bit to make the four holes at a minimum of 1-1/2" depth up to 2-1/2". Clean the concrete dust from the holes.
4. Install the anchors (4) in the holes by using a hammer. Put the nuts on the top of the anchors to protect the threads when you will hit the anchors with the hammer. Remove the nuts on the ends of the anchors
5. Install the wall mounting plate on the anchors and screw the nut in place with a maximum torque of 40 N.m (30 lbf-ft). There should be no gap between the wall mounting plate and the catch basin wall.
6. From ground above using a reach bar, lower the device by hooking the end of the reach bar to the handle of the LMF device. Align the triangular plate portion into the mounting wall plate. Push down the device to be sure it has centered in to the wall mounting plate and has created a seal.



Round CB Installation Notes: (Refer to square install notes above for steps 1 , 3, & 4)

2. Use spigot catch basin wall plate to locate and mark the hole (4) pattern on the catch basin wall. You should use a level to ensure that the plate is at the horizontal.
5. Install the CB spigot wall plate on the anchors and screw the 4 nuts in place with a maximum torque of 40 N.m (30 lb-ft). There should be no gap between the CB spigot wall plate and the catch basin wall.
6. Apply solvent cement on the hub of the universal mounting plate and the spigot of the spigot CB wall plate. Slide the hub over the spigot. Make sure the universal mounting plate is at the horizontal and its hub is completely inserted onto the spigot. Normally, the corners of the universal mounting plate hub adapter should touch the catch basin wall.
7. From ground above using a reach bar, lower the ICD device by hooking the end of the reach bar to the handle of the ICD device. Align the triangular plate portion into the mounting wall plate. Push down the device to be sure it has centered into the mounting plate and has created a seal.



CAUTION/WARNING/DISCLAIM:

- Verify that the inlet(s) pipe(s) is not protruding into the catch basin. If it is, cut it back so that the inlet pipe is flush with the catch basin wall.
- Any required cement in the installation must be approved for PVC.
- The solvent cement should not be used below 0°C (32°F) or in a high humidity environment. Please refer to the IPEX solvent cement guide to confirm required curing times or attend the IPEX **Online Solvent Cement Training Course**.
- Call your IPEX representative for more information or if you have any questions about our products.



IPEX

IPEX TEMPEST Inlet Control Devices Technical Specification

General

Inlet control devices (ICD's) are designed to provide flow control at a specified rate for a given water head level and also provide odour and floatable control where specified. All ICD's will be IPEX Tempest or approved equal.

All devices shall be removable from a universal mounting plate. An operator from street level using only a T-bar with a hook will be able to retrieve the device while leaving the universal mounting plate secured to the catch basin wall face. The removal of the TEMPEST devices listed above must not require any unbolting or special manipulation or any special tools.

High Flow (HF) Sump devices will consist of a removable threaded cap which can be accessible from street level with out entry into the catchbasin (CB). The removal of the threaded cap shall not require any special tools other than the operator's hand.

ICD's must have no moving parts.

Materials

ICD's are to be manufactured from Polyvinyl Chloride (PVC) or Polyurethane material, designed to be durable enough to withstand multiple freeze-thaw cycles and exposure to harsh elements.

The inner ring seal will be manufactured using a Buna or Nitrile material with hardness between Duro 50 and Duro 70.

The wall seal is to be comprised of a 3/8" thick Neoprene Closed Cell Sponge gasket which is attached to the back of the wall plate.

All hardware will be made from 304 stainless steel.

Dimensioning

The Low Medium Flow (LMF), High Flow (HF) and the High Flow (HF) Sump shall allow for a minimum outlet pipe diameter of 200mm with a 600mm deep Catch Basin sump.

Installation

Contractor shall be responsible for securing, supporting and connecting the ICD's to the existing influent pipe and catchbasin/manhole structure as specified and designed by the Engineer.





The Corporation of the
Town of Amherstburg
ENGINEERING & PUBLIC WORKS

512 SANDWICH STREET SOUTH
AMHERSTBURG, ONTARIO
N9V 3R2

Phone: (519) 736-3664

Fax: (519) 736-7080

www.amherstburg.ca

MEMO

To: Rebecca Belanger
From: Todd Hewitt
Date: January 30, 2017
File No.: D11-2017-001
Subject: Mojojo Apartments – Site Plan Review

Rebecca,

EPW has completed a review of the site plan drawings submitted last week.

Sheet C-100

- All sidewalk replacement must be 1.5m wide (minimum) as per the Accessibility for Ontarians with Disabilities Act (AODA) even if the current width is 1.2m
- Existing water service to be shut off at the watermain (mainstop). Contractor to remove existing copper service piping along with curb box to the satisfaction of Public Works.
- Cap existing sanitary connection at the lot line to the satisfaction of Public Works. Location of existing service in unknown.

The Town is planning to replace the watermain on Pickering Drive in 2017. This replacement will also involve resurfacing the roadway. The timing for these works will need to be coordinated between Public Works and 182 Pickering Inc. The Town will require that the sanitary connection across Pickering is completed prior to the repaving. The Town will include this work in the tender for the Pickering watermain in case it is not completed prior to resurfacing. If it is completed as part of the watermain project it will be at the cost of the owner and billed back to the owner of 182 Pickering.

The Town will include the new 150mm building service on the new watermain. If the new watermain is installed prior to the construction of the apartment building a 150mm connection will be installed to the property line including required valving. This connection will be included separately in the tender and will be installed at the cost of the building owner. This would be the preferred method if timing allows.

If the new building connection is required prior to the installation of the new watermain it will proceed as per the submitted drawings. The connection from the new watermain to the new service would then be installed at the cost of the Town.

We have not completed the review of the stormwater management report, we will contact the engineer directly as needed.

If the proponent has any questions regarding these conditions please contact me.

Sincerely,

Todd Hewitt
Manager of Engineering