

**JULY 13, 2020**

**PROJECT NO: 1284-4979**

Town of The Blue Mountains  
Planning and Development Services  
32 Mill Street, Thornbury, ON N0H 2P0

**SENT VIA: EMAIL**  
**DWHALEY@THEBLUEMOUNTAINS.CA**

**Attention: Denise Whaley, MSc MCIP RPP**

**RE: 61 ALFRED STREET WEST - EXISTING DRAINAGE**

Dear Denise,

Our office has prepared this letter in response to comments received from local residents regarding existing drainage issues in the vicinity of the development application (Site). The revised Functional Servicing & Stormwater Management Report prepared by our office in June 2020 provided additional details regarding the external drainage from the lots on Thorncroft Court and Orchard Drive, which back onto this Site. Further information is presented below.

### **Existing Conditions**

#### **Thorncroft Court**

A topographic survey was completed by Hewitt and Milne Ltd. (OLS) in 2018, which captured the grades along the property line between Thorncroft Court and the Site. The survey shows the property line generally slopes toward Victoria Street South; however, it appears that there is a high point along this property line which would split external drainage between Victoria Street South and the lots on Orchard Drive. Refer to the Pre-Development Drainage Areas in the enclosed figure.

The Approved Grading Plans for Thorncroft Court indicate that the existing lots backing onto the Site were to be graded with rear to front drainage; however, based on Site visits completed by our office and comments from residents there appears to be a small portion of the existing lots that drain into the Site. A photo of the property line between Thorncroft Court and the Site is enclosed, which shows that some of the lots on Thorncroft Court were raised in the rear yards and graded with a steep slope down to match property line grades.

#### **Orchard Drive**

Based on the comments received from the residents of Orchard Drive we understand that there is a history of drainage issues on some of the lots. Our office has also reviewed the Design Drawings (1976) for the drainage and grading of the Orchard Drive subdivision.

The original grading design for the lots backing onto the Site does not meet the Town's current engineering standards. The side and rear yard swales were not designed to provide a minimum 2% slope, which would cause ponding on the lots. A minimum 2% slope is specified in the Town's engineering standards to provide overland drainage from the lots to the Municipal storm sewer system. It is noted that rear-yard catchbasins were also incorporated into the drainage plan for the subdivision; however, it is unclear if these catchbasins were ever installed or if they were removed during home construction. The purpose of these catchbasins is to collect runoff from the rear lots and convey to the Municipal storm sewer on Orchard Drive.

### **Proposed Drainage**

The grading and drainage for the proposed development of the Site will be designed to meet the following objectives:

1. Convey internal and external drainage to an outlet on Victoria Street South or Alfred Street West via storm sewers or overland flow routes (i.e. internal roadway or drainage swales);
2. Control the increased runoff post development to the appropriate release rates; and
3. Use best efforts to improve the existing drainage conditions for the existing lots that back onto the Site.

The Post-Development Drainage Plan enclosed shows that there will be two (2) catchments that convey runoff to the Municipal System on Victoria Street South or Alfred Street West. The external drainage from the Thorncroft Court lots will be captured by the proposed rear yard swale and conveyed to the Victoria Street South storm sewer via the rear yard catchbasin and internal storm sewer system.

A concern noted in the comments from residents was regarding the proposed grades within the Site. The geotechnical investigation completed by Peto MacCallum recommended that the lots be raised by 1.0 to 1.5m to provide separation from the seasonal high groundwater elevation. As shown on the Post Development Drainage Plan, the lots will be graded to primarily convey runoff to the internal roadway or Alfred Street West. Blocks 3, 4 and 5 are proposed to be graded with split drainage with runoff from the rear yards being captured by the rear yard swale and conveyed to the internal storm sewer via the rear yard catchbasin.

The proposed development will control the internal drainage, including any external runoff (i.e. from the Thorncroft Court properties) that currently drains through the Site, which should improve the overall drainage in the area. However, it should be noted that the deficiencies on the Orchard Drive lots, noted above, will not be addressed as part of this development given that these deficiencies are not related to the proposed development. The Orchard Drive property owners may wish to work with the Town to correct any existing deficiencies.

Should you have any questions or require any further information, please do not hesitate to contact the undersigned. Thank you.

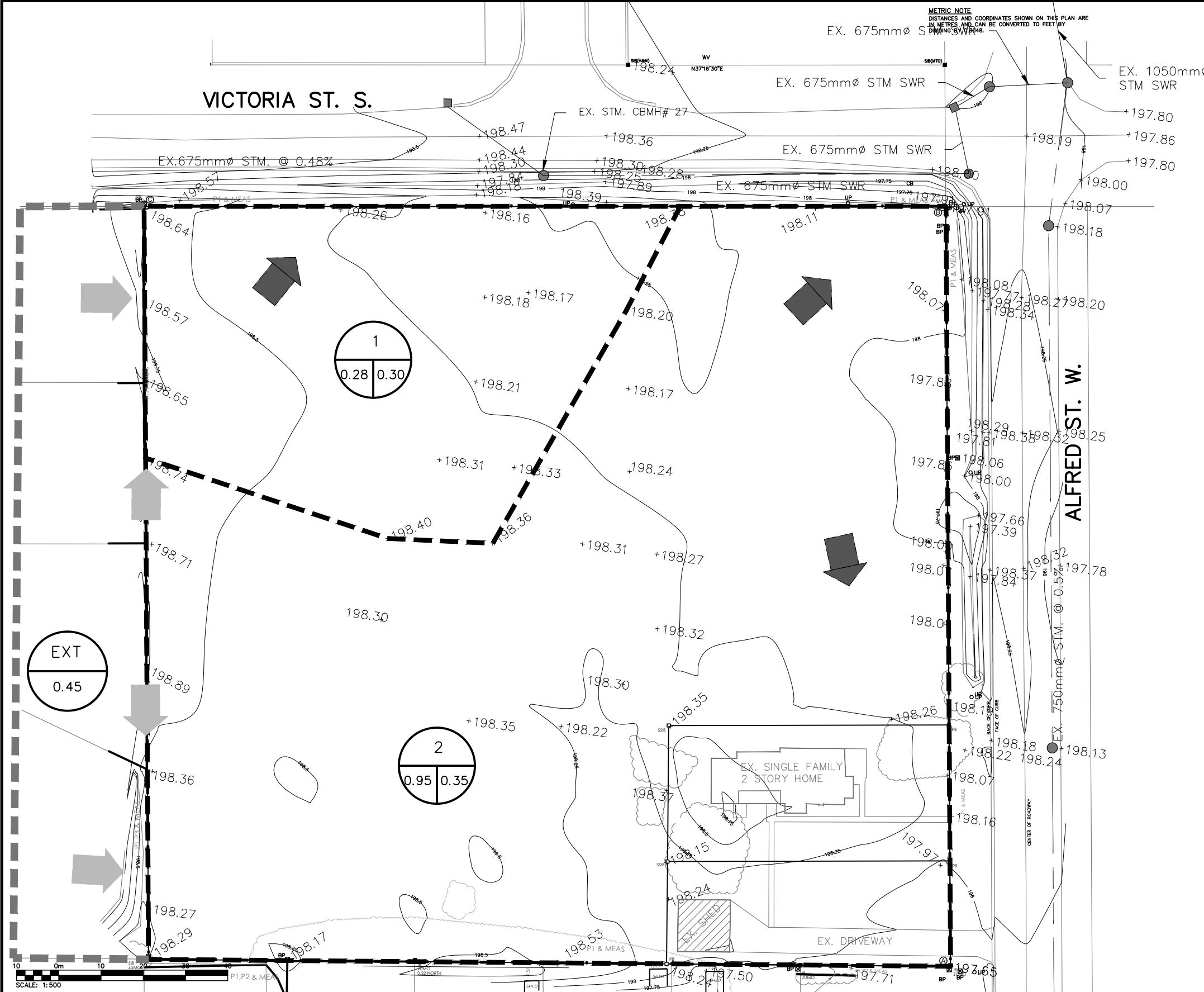
Sincerely,

### **CROZIER CONSULTING ENGINEERS**



Kevin Morris, P. Eng.  
Founding Partner

Enclosure      Pre-Development Drainage Areas  
                         Site Photo  
                         Post-Development Drainage Areas



**LEGEND**

- x 198.11 X-ELEVATION
- PROPERTY BOUNDARY
- INTERNAL DRAINAGE AREA
- EXTERNAL DRAINAGE AREA
- INTERNAL OVERLAND FLOW ARROW
- EXTERNAL OVERLAND FLOW ARROW
- CATCHMENT ID
- XXX XX RUN OFF COEFFICIENT
- CATCHMENT AREA (ha)
- CATCHMENT ID
- XX RUN OFF COEFFICIENT

1. THIS DRAWING IS THE EXCLUSIVE PROPERTY OF C.F. CROZIER & ASSOCIATES INC. AND THE REPRODUCTION OF ANY PART WITHOUT PRIOR WRITTEN CONSENT OF THIS OFFICE IS STRICTLY PROHIBITED.

2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LEVELS, AND DATUMS ON SITE AND REPORT ANY DISCREPANCIES OR OMISSIONS TO THIS OFFICE PRIOR TO CONSTRUCTION.

3. THIS DRAWING IS TO BE READ AND UNDERSTOOD IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTS APPLICABLE TO THIS PROJECT.

4. DO NOT SCALE THE DRAWINGS.

5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

**TEMPORARY BENCHMARKS**

TBM#1-  
TBM#2-  
TBM#3-

No.	ISSUE	DATE: MM/DD/YYYY
0	DRAFT PLAN APPROVAL	09/13/2019
1	REVISED FOR NEW LOT FABRIC	06/2/2020

**DRAFT**

FOR DISCUSSION PURPOSES ONLY

**ASHBURY EAST**

**THE TOWN OF THE BLUE MOUNTAINS**

**PRE DEVELOPMENT DRAINAGE AREA**

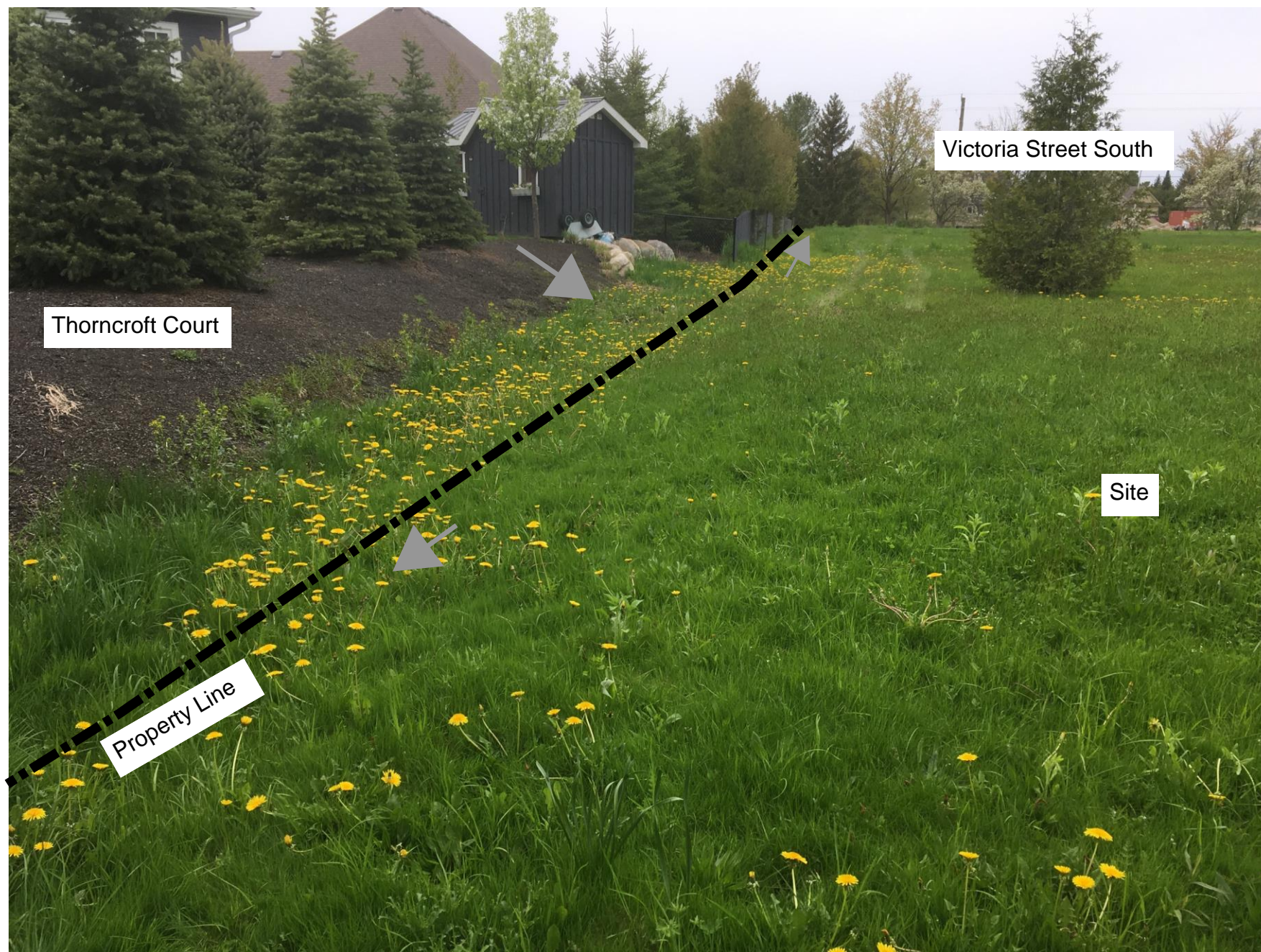
**CROZIER**

CONSULTING ENGINEERS

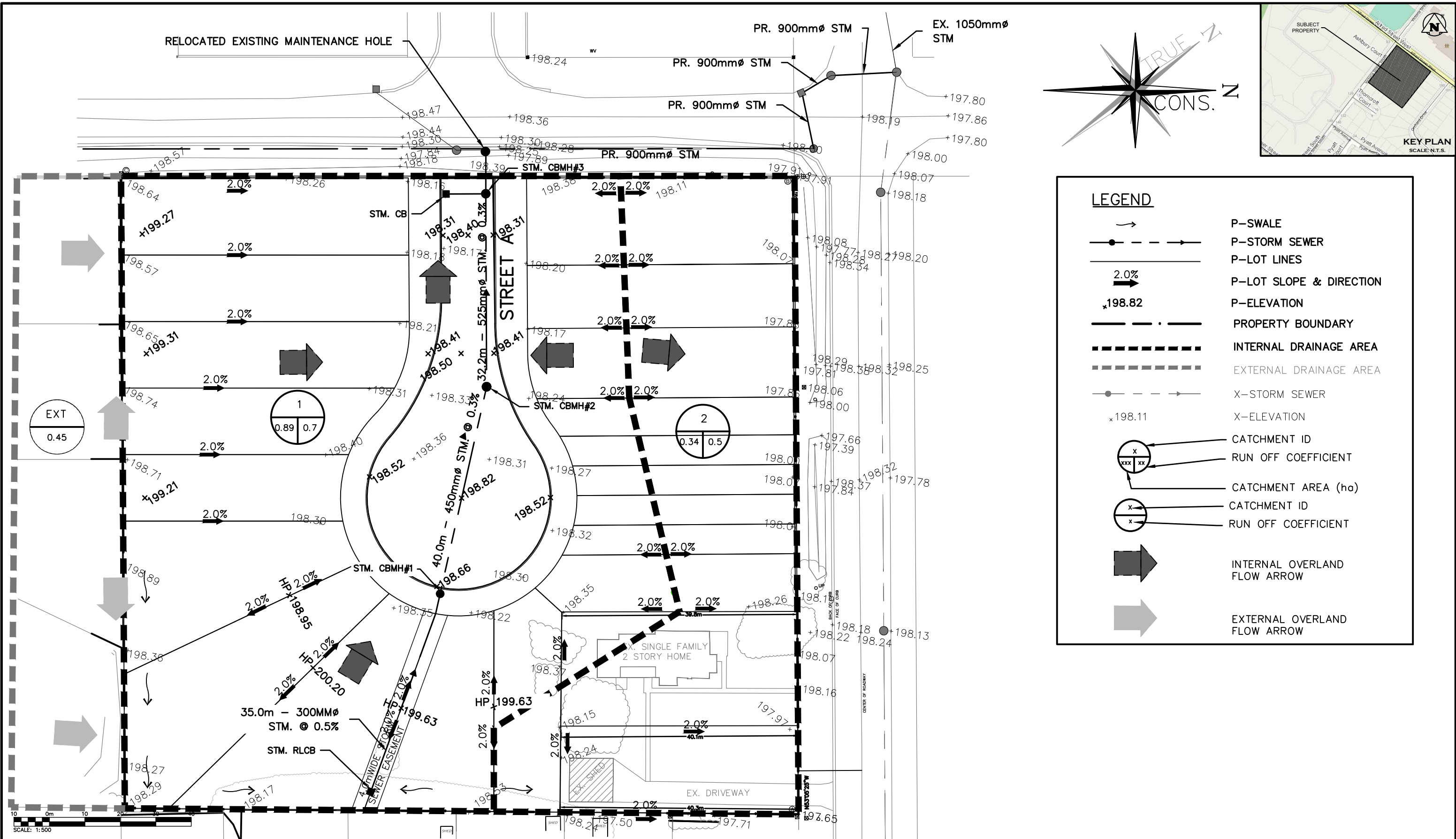
THE HARBOUREDGE BUILDING,  
40 HURON STREET, SUITE 301,  
COLLINGWOOD, ON L9Y 4R3  
705 446-3510 T  
705 446-3520 F  
WWW.CFCROZIER.CA  
INFO@CFCROZIER.CA

Drawn By	N.L.	Design By	N.L.	Project	1284-4979
Check By	K.M.	Check By	G.C.	Scale	1:600
				Drawing	FIG. 5









LEGEND

P-SWALE

P-STORM SEWER

P-LOT LINES

P-LOT SLOPE & DIRECTION

P-ELEVATION

PROPERTY BOUNDARY

INTERNAL DRAINAGE AREA

EXTERNAL DRAINAGE AREA

X-STORM SEWER

X-ELEVATION

CATCHMENT ID

RUN OFF COEFFICIENT

CATCHMENT AREA (ha)

CATCHMENT ID

RUN OFF COEFFICIENT

INTERNAL OVERLAND FLOW ARROW

EXTERNAL OVERLAND FLOW ARROW

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Engineer

Engineer

Project

ASHBURY EAST  
THE TOWN OF THE BLUE MOUNTAINS

PRELIMINARY SITE GRADING AND POST  
DEVELOPMENT DRAINAGE PLAN

C

CROZIER  
CONSULTING ENGINEERS

THE HARBOUREDGE BUILDING,  
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COLLINGWOOD, ON L9Y 4R3  
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K.M.

Design By  
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1284-4979  
1:600

FIG. 6