



SOIL-MAT ENGINEERS & CONSULTANTS LTD.

401 Grays Road · Hamilton, ON · L8E 2Z3

🌐 www.soil-mat.ca ✉ info@soil-mat.ca 📞 905.318.7440 🖨 905.318.7455

PROJECT No.: SM 301951-G

September 22, 2025

CACHET DEVELOPMENTS
361 Connie Crescent – Suite 200
Concord, Ontario
L4K 5R2

Attention: Brendan Walton, P.Eng.
Engineering Manager, Land Development

**HYDROGEOLOGICAL SUMMARY LETTER
PROPOSED RESIDENTIAL DEVELOPMENT
CLAYTON LANDS
ELORA, ONTARIO**

Dear Mr. Walton,

As requested, a representative of SOIL-MAT ENGINEERS AND CONSULTANTS visited the above noted site on February 24 and May 13, 2025. The purpose of these site visits was to install two [2] additional groundwater monitoring wells, measure the stabilized groundwater depths in the previously installed monitoring wells and collect the data from the data loggers installed by SOIL-MAT ENGINEERS. The purpose of this exercise was to further characterize the groundwater elevations of the Clayton Lands in particular with respect to the concerns raised for the basement level elevations.

SOIL-MAT ENGINEERS has conducted multiple previous studies including; Preliminary Hydrogeological Assessment [SM 301951-G, dated July 20, 2022], Supplemental Groundwater Data [SM 301951-G, dated August 19, 2024] and Geotechnical Investigation [SM 301951-G, dated September 3, 2021] over the Elora Sands and Clayton Lands portion of the proposed development area. These reports have also been taken into consideration in preparation of this report.

Site Description

The Clayton lands portion of the site is bound by Woolwich Street East [Nichol Road 15] to the north, Irvine Street to the east, the Elora Meadows subdivision to the south and residential lots, as well as a school to the west. The subject site consists primarily of agricultural property.



The soil conditions generally encountered at the site included a surficial veneer of topsoil approximately 300 to 400 millimetres in thickness, overlying native sand to silty sand/sandy silt with traces to some gravel, proven to depths of approximately 2.0 to 7.5 metres. It was noted that grey silty clay/clayey silt was observed at Borehole Nos. 501 and 502 at an approximate depth of 6.0 metres below the existing ground surface to termination at 7.5 metres.

Procedure

A total of two [2] sampled boreholes, Borehole Nos. 501 and 502, were advanced at the locations illustrated in the attached Drawing No. 1, Borehole Location Plan. The boreholes were advanced using continuous flight power auger equipment on February 24, 2025 under the direction of a staff member of SOIL-MAT ENGINEERS AND CONSULTANTS LTD., to termination at depths of approximately 7.5 metres below the existing ground surface.

Representative samples of the subsoils were recovered from the borings at selected depth intervals using split barrel sampling equipment driven in accordance with the requirements of ASTM test specification D1586, Standard Penetration Resistance Testing. After undergoing a general field examination, the soil samples were preserved and transported to the SOIL-MAT laboratory for visual, and olfactory classifications. Routine moisture content tests were performed on all soil samples recovered from the borings.

The boreholes were located in the field by representatives of SOIL-MAT ENGINEERS, based on accessibility over the site and clearance of underground utilities. The ground surface elevation at the borehole locations have been interpolated to the approximate geodetic elevations based on the contours from the BSR&D topographic survey map [Reference No. 21-14-573-00-topo, dated January 4, 2022], provided to this office.

Details of the conditions encountered in the boreholes, together with the results of the field and laboratory test, are presented in Log of Borehole Nos. 501 and 502, following the text of this report. It is noted that the boundaries of soil types indicated on the borehole logs are inferred from non-continuous soil sampling and observations made during drilling. These boundaries are intended to reflect transition zones for the purpose of geotechnical design and therefore should not be construed as the exact depths of geological change.



Groundwater Observations

Groundwater observations were made during the drilling operations. Monitoring wells were installed at both borehole locations, to allow for future measurements of the ground water level. The monitoring wells consisted of 50-millimetre diameter PVC pipe, screened in the lower 3 metres. The wells were encased in well filter sand up to approximately 0.3 metres above the screened portion, then a bentonite 'hole plug' was installed up to the surface, and fitted with a protective steel 'stick-up' casing.

Upon the completion of drilling, both boreholes were noted to be open and Borehole No. 501 was noted to be 'wet' at a depth of approximately 4.3 metres, while Borehole No. 502 was noted to be dry. It is noted that insufficient time would have passed for the static groundwater level to stabilise in the open boreholes. A representative of SOIL-MAT returned to the site on May 13, 2025 to measure groundwater levels. The recorded measurements from this visit, as well as our previous site visit measurements, are included in the tables below.

TABLE A
SUMMARY OF MANUAL GROUNDWATER READINGS (CLAYTON LANDS)

Borehole No. 101 (Ground Surface Elevation of 407.50 metres)		
	Groundwater Depth (m)	Groundwater Elevation (m)
August 6, 2021	4.78	402.7
August 27, 2021	4.71	402.8
October 14, 2021	4.33	403.2
February 23, 2022	4.31	403.2
April 22, 2022	4.07	403.4
June 1, 2022	4.15	403.4
May 3, 2023	4.06	403.4
May 13, 2025	4.12	403.4

Borehole No. 102 (Ground Surface Elevation of 413.00 metres)		
	Groundwater Depth (m)	Groundwater Elevation (m)
August 6, 2021	3.58	409.4
August 27, 2021	3.61	409.4
October 14, 2021	3.62	409.4
February 23, 2022	3.50	409.5
April 22, 2022	2.89	410.1
June 1, 2022	3.05	410.0
May 3, 2023	3.00	410.0
May 13, 2025	2.82	410.2



Borehole No. 104 (Ground Surface Elevation of 414.20 metres)		
	Groundwater Depth (m)	Groundwater Elevation (m)
August 6, 2021	6.78	407.4
August 27, 2021	6.96	407.2
October 14, 2021	7.09	407.1
February 23, 2022	6.83	407.4
April 22, 2022	6.13	408.1
June 1, 2022	6.28	407.9
May 3, 2023	6.56	407.6
May 13, 2025	6.24	408.0

Borehole No. 301 (Ground Surface Elevation of 412.75 metres)*		
	Groundwater Depth (m)	Groundwater Elevation (m)
February 23, 2022	6.29	406.5
April 22, 2022	5.65	407.1
June 1, 2022	5.71	407.0
May 3, 2023	5.85	406.9
May 13, 2025	5.59	407.2

Borehole No. 302 (Ground Surface Elevation of 413.00 metres)*		
	Groundwater Depth (m)	Groundwater Elevation (m)
February 23, 2022	6.62	406.4
April 22, 2022	6.06	406.9
June 1, 2022	6.12	406.9
May 3, 2023	6.35	406.7
May 13, 2025	6.03	407.0

Borehole No. 303 (Ground Surface Elevation of 414.00 metres)*		
	Groundwater Depth (m)	Groundwater Elevation (m)
February 23, 2022	5.40	408.6
April 22, 2022	6.04	407.9
June 1, 2022	6.11	407.9
May 3, 2023	6.41	407.6
May 13, 2025	5.98	408.0



Borehole No. 304 (Ground Surface Elevation of 407.90 metres)*		
	Groundwater Depth (m)	Groundwater Elevation (m)
February 23, 2022	2.87	405.0
April 22, 2022	2.60	405.3
June 1, 2022	2.96	404.9
May 3, 2023	2.42	405.5
May 13, 2025	2.72	405.2

Borehole No. 305 (Ground Surface Elevation of 408.60 metres)*		
	Groundwater Depth (m)	Groundwater Elevation (m)
February 23, 2022	Dry	<405.6
April 22, 2022	Dry	<405.6
June 1, 2022	Dry	<405.6
May 3, 2023	Dry	<405.6
May 13, 2025	Dry	<405.6

Borehole No. 501 (Ground Surface Elevation of 412.80 metres)*		
	Groundwater Depth (m)	Groundwater Elevation (m)
May 13, 2025	3.78	409.0

Borehole No. 502 (Ground Surface Elevation of 413.60 metres)*		
	Groundwater Depth (m)	Groundwater Elevation (m)
May 13, 2025	3.27	410.3

*Ground surface elevations have been interpolated based on contours from current topographic survey

Hydrogeological Considerations

Based on our observations during drilling, the static groundwater level is conservatively estimated at depths of perhaps 2 to 5 metres below the existing ground surface, at elevations of approximately 403 to 410 at Clayton Lands. It was noted that the measured groundwater level generally followed the contours of the ground surface elevations. Regardless, based on the observed water conditions in the boreholes, shallower 'perched' deposits should be anticipated, especially during the 'wet' times of the year.

The foundation levels for the townhouse or single-family units should be designed to allow for a minimum separation of 0.3 metres between the seasonal high groundwater elevation and the founding elevation. Where the separation is less it may be necessary to raise the founding level or adjust the grade to allow for adequate separation. The attached Drawing No. 2, Groundwater Contour Plan, illustrates the approximate groundwater contours based on linear interpolation of the measurements taken at the groundwater monitoring wells.

PROJECT No.: SM 241154-G

HYDROGEOLOGICAL SUMMARY LETTER
PROPOSED RESIDENTIAL SUBDIVISION
CLAYTON LANDS
ELORA, ONTARIO



We trust that this information is satisfactory for your purposes. Should you have any questions please do not hesitate to contact the undersigned.

Yours very truly,
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

A handwritten signature in blue ink, appearing to be "K. Reid", written over the company name.

Kevin Reid, P. Eng.
Project Engineer

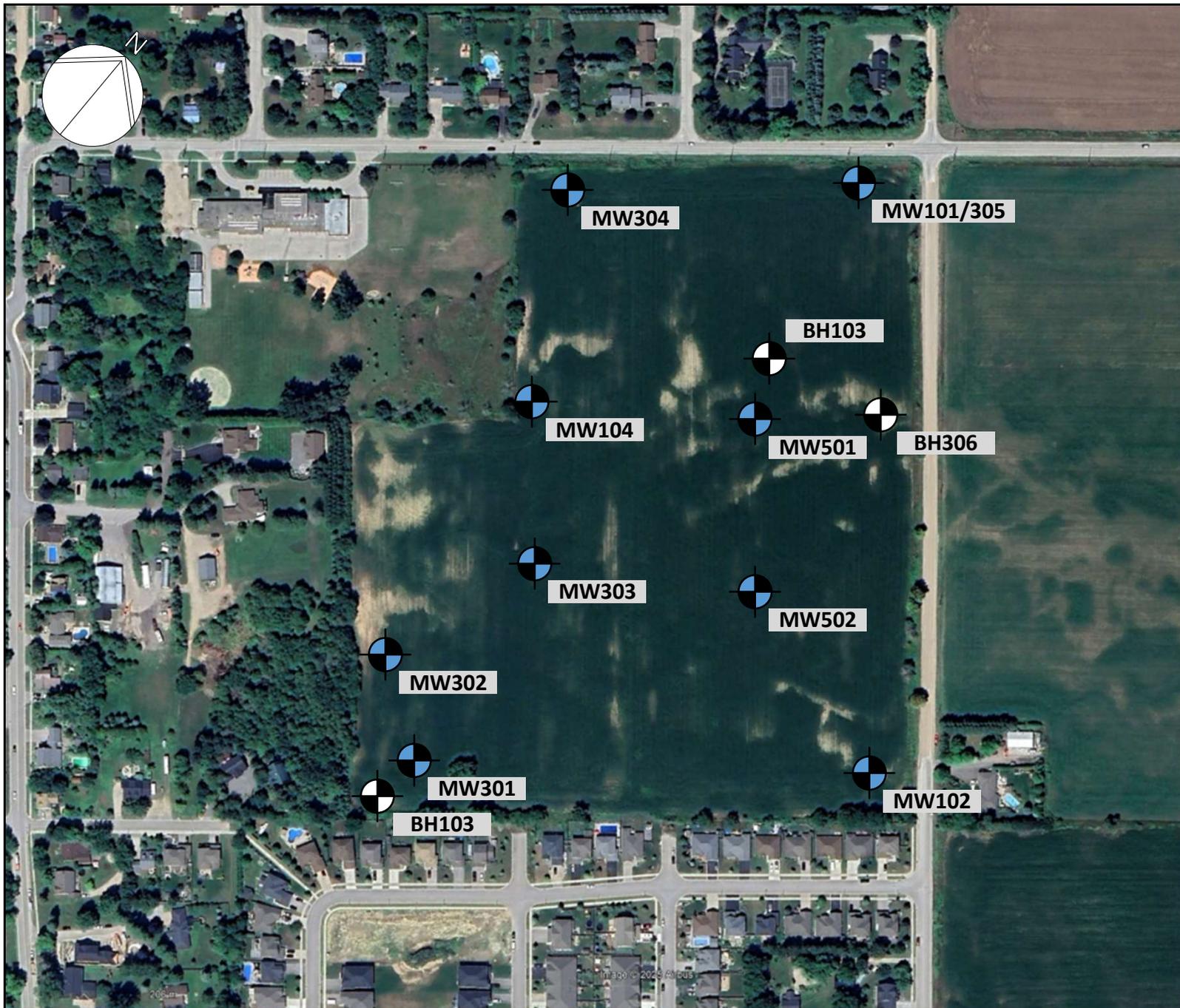


Ian Shaw, P.Eng., QP_{ESA}
Senior Engineer

Enclosures: Drawing No. 1, Borehole Location Plan
Drawing No. 2, Groundwater Contour Plan

Distribution: Cachet Developments [pdf]

SM 301951-G Proposed Residential Subdivision – Clayton Lands– Hydrogeological Summary Letter



LEGEND

-  Borehole Location
BH#
-  Monitoring Well Location
MW#

NOTES

1. This drawing should be read in conjunction with Soil-Mat Engineers & Consultants Ltd. Report No. SM 301951-G.
2. Borehole and monitoring well locations are approximate.

SOIL-MAT

ENGINEERS & CONSULTANTS LTD.

Supplemental Hydrogeological Assessment
Proposed Residential Development
Clayton Lands
75 Woolwich Street East
Elora, Ontario

Borehole and Monitoring Well Location Plan

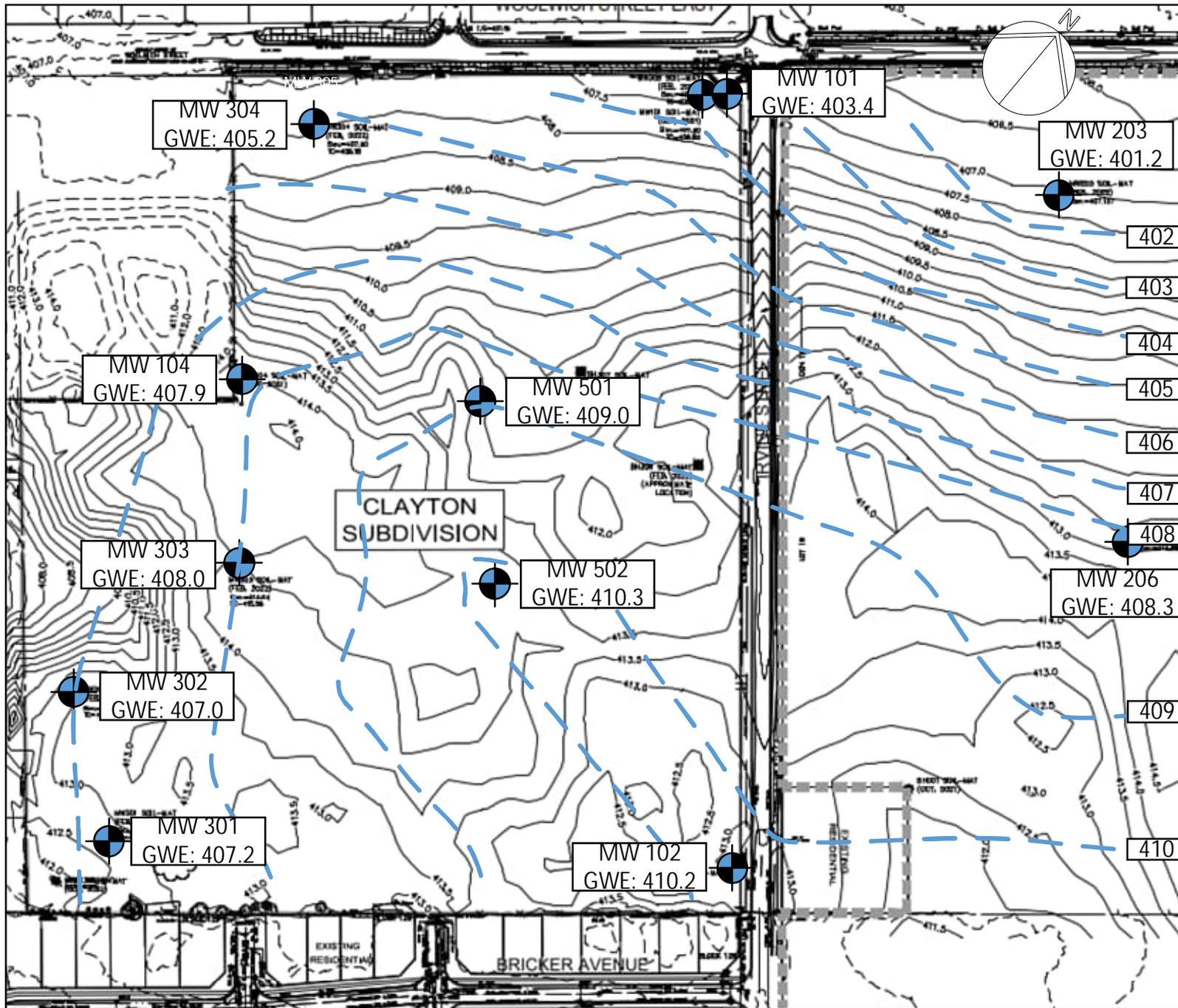
Project No. SM 301951-G

Date: July, 2025

Drawn: MG

Checked: IS

Drawing No. 1



LEGEND	
	Soil-Mat Monitoring Well Location
	MW#
NOTES	
1. This drawing should be read in conjunction with Soil-Mat Engineers & Consultants Ltd. Report No. SM 241154-G.	
2. Drawing Ref: Existing Conditions Plan, MTE, Drawing No. EC2.1, dated January 29, 2025	
3. Borehole locations are approximate.	
SOIL-MAT	
ENGINEERS & CONSULTANTS LTD.	
Hydrogeological Considerations Clayton Lands Elora, Ontario	
Groundwater Contour Map	
Project No. SM 241154-G	
Date: September 2025	
Drawn: KJR	Checked: IS
SM 241154-G Groundwater Contour Map	
Drawing No. 2	