April 16, 2026 FINAL

Municipality of Magnetawan
4304 Highway 520, P.O. Box 70
Magnetawan, Ontario P0A 1P0

E-mail: clerk@magnetawan.com

Attention: Kerstin Vroom
CAO/Clerk

Re: Waste Fill Plan
Chapman Waste Disposal Site, Magnetawan, Ontario
Pinchin File: 225335.007

1.0 INTRODUCTION

Pinchin Ltd. (Pinchin) was retained by the Municipality of Magnetawan (the Municipality) to prepare a Waste Fill Plan for the Chapman Waste Disposal Site (the Site). The following report presents a Waste Fill Plan for the Site, including detailed drawings to be adhered to by Municipality landfill operators during the placement of waste at the Site. Adherence to this plan will ensure that Site operations are conducted to minimize any potential impact on groundwater and surface water quality, including reduced leachate production while maximizing the available landfill capacity and extending the life of the landfill by ensuring the most effective placement of waste deposits to reach the proposed final closure contour design as outlined herein.

1.1 Location

The Site is located on Lot 108, Concession A within the Municipality of Magnetawan, District of Parry Sound, Ontario, and is located approximately 5.5 kilometres (km) northeast of the Township of Magnetawan, Ontario. The Site location is indicated on Figure 1 (all Figures are provided in Appendix I).

The Site is located at Universal Transverse Mercator (UTM) coordinates Zone 17U, 606,831 metres (m) Easting and 5,063,200 m Northing (North American Datum 1983). Landfill coordinates were obtained using a Global Positioning System and are accurate within 10 m.

2.0 BACKROUND

The Site is operated as a landfill for domestic and commercial solid, non-hazardous wastes to be utilized by residents of the area. The Site was approved for a total fill area of 1.2 hectares (ha) within a 41-ha property. The Site is authorized to accept solid, non-hazardous residential and commercial waste and operated under Ministry of the Environment, Conservation and Parks (MECP) Certificate of Approval

(CofA, now referred to as an Environmental Compliance Approval (ECA)) Number A521202, dated March 20, 1980, and provided in Appendix II.

The Site is accessed by a road from the southeast side of Rocky Road located approximately 200 m east of the intersection of Rocky Road and Nipissing Road North. Access to the Site is controlled by a lockable gate. Landfilling began at the Site prior to 1980, and the active landfilling area is currently located within the central portion of the Site.

A map illustrating the site features, landfill boundary and property boundary is provided as Figure 2.

2.1 Site Document Review

Pinchin reviewed the following reports for the Site during preparation of this Waste Fill Plan:

- Report entitled "*2018 Annual Monitoring Report, Chapman Waste Disposal Site, Magnetawan, Ontario*" completed by D.M. Wills Associates Limited for the Corporation of the Municipality of Magnetawan and dated March 2019 (the 2018 D.M. Wills Monitoring Report);
- Report entitled "*Leachate Management Plan Study, Chapman Waste Disposal Site, Magnetawan, Ontario*", prepared by Pinchin for the Corporation of the Municipality of Magnetawan and dated April 30, 2019 (the 2019 Leachate Management Plan Study Report);
- Report entitled "*Waste Capacity Study, Chapman Waste Disposal Site, Magnetawan, Ontario*", prepared by Pinchin for the Corporation of the Municipality of Magnetawan and dated September 24, 2019 (the 2019 WCA);
- Report entitled "*Updated Trigger Level Monitoring Plan, Chapman Waste Disposal Site*", prepared by Pinchin for the Corporation of the Municipality of Magnetawan and dated September 13, 2022 (the Updated Trigger Level Monitoring Program);
- Report entitled "*2025 Landfill Closure and Post-Closure Care Liability Estimates, Chapman and Croft Waste Disposal Sites, Magnetawan, Ontario*", prepared by Pinchin for the Client and dated April 2, 2025 (the 2025 Liability Estimate Report); and
- Report entitled "*2024 Annual Monitoring Report, Chapman Waste Disposal Site, Magnetawan, Ontario*", prepared by Pinchin for the Client and dated March 17, 2025 (the 2024 AMR).

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3.0 PHYSICAL SETTING

3.1 Geology and Hydrogeology

A detailed investigation of the Site geology and hydrogeology was outlined in the 2019 Leachate Management Study Report. Based on a review of the aforementioned report, the regional geology at the Site is dominated by the presence of shallow Precambrian bedrock with a thin veneer of overburden deposits and frequent bedrock outcroppings. Details provided in the 2018 D.M. Wills Monitoring Reports indicated that an incised bedrock low was observed trending southwest to northeast and was infilled with glaciolacustrine sand deposits to depths of up to 10 m. Based on these observations, the hydrogeological setting of the Site can best be described as a low permeability buried bedrock valley infilled with coarse granular materials of high permeability. This setting results in a flow system that is contained within the overburden infill materials, but which is significantly controlled by bedrock topography. As indicated in the 2019 Leachate Management Study Report, the landfill development may have been initiated within a historical aggregate extraction pit on the western half of the Site with a bedrock high located in the central portion of the landfill footprint. This second bedrock high trends easterly and results in bedrock outcrop east of the fill deposits with a significant topographic slope towards the south. The topography for the Site as of October 2023 is provided as Figure 3.

Pinchin installed seven new monitoring wells at the Site between September 26 and 28, 2018, in order to complete a hydrogeological assessment as part of the 2019 Leachate Management Plan Study. Based on a review of the borehole logs for these well installations, the subsurface soil conditions at the Site were observed to consist of coarse sand or sand and silt overburden materials. Bedrock was encountered at the Site at depths of between approximately 2 metres below ground surface (mbgs) and 4 mbgs at the boreholes advanced on the south and east portions of the Site. Borehole logs for the monitoring wells installed by Pinchin in 2018 are provided in Appendix III. No other borehole logs were provided to Pinchin for review.

The groundwater flow system most representative of the performance of the Site occurs within the underlying unconfined overburden aquifer. Bedrock drilling in the area suggests very competent rock with limited significant water-bearing fractures. The presence of a pronounced bedrock ridge located near the middle of the Site, which trends west to east, appears to indicate the presence of a buried bedrock valley. This feature confines the horizontal and vertical extent of landfill leachate impacts, but also results in the discharge of potentially impacted groundwater to the surface along the bedrock plane that outcrops from the incised valley associated with adjacent surface water features.

Groundwater movement at the Site has been established (by water level contouring) as being directed towards the northeast and is generally consistent with the orientation of the buried bedrock valley

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confirming the conceptual model of a flow system influenced by the combination of highly permeable sand and gravel deposits and the underlying bedrock topography.

3.2 Surface Water Features

According to previous the 2024 AMR and the 2019 Leachate Management Plan Study Report, two surface water features have been documented in the immediate vicinity of the Site.

A creek is present along the southern perimeter of the landfill area flowing from west to east. This creek flows year-round with varying flow rates depending on meltwater and precipitation events. Surface water monitoring location SW1 is situated within this creek, upstream of the waste deposits. Another creek is present along the eastern perimeter of the landfill flowing from north to southeast. This creek is ephemeral in nature with very limited flow outside of seasonal meltwater and precipitation events. As indicated in the 2019 Leachate Management Plan Study Report, a leachate seep was identified on the banks of the second creek, upstream of its confluence with the larger creek.

The first creek exists along the southern perimeter of the landfill area flowing from west to east. Surface water monitoring location SW1 is situated within this creek in an upstream area. This creek flows year round with varying flow rates depending on meltwater and precipitation events. The second creek exists along the eastern perimeter of the landfill flowing from north to southeast. Surface water monitoring location SW3 is situated within this creek. This creek is more ephemeral in nature with very small flows outside of seasonal precipitation based events. The 2019 Leachate Management Study Report indicates that there is currently a leachate seep located on the banks of the second tributary upstream of the confluence with the larger creek. Surface water monitoring location SW2 is situated downstream of the confluence of the two streams at a culvert on Millers Road.

4.0 SITE CONDITIONS

4.1 Site Layout

Currently, the Site utilizes an area fill (tipping face) disposal method located on the central portion of the Site. This area currently extends to the highest Site elevation of 328 m above sea level (masl) approximately 13 m above the inferred original topography (315 masl). Gravel access roads are located adjacent to the west and south portions of the active fill area. Waste bins are located west of the active fill area. A metal collection area is located immediately northwest of the waste disposal area, and a tire pile is located southwest of the active fill area. Users of the Site are received by an attendant positioned near the entrance of the Site and are directed to the appropriate disposal areas as needed.

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4.2 Proposed Site Development

The proposed waste deposition plan comprises of nine (9) fill sequences as illustrated in plan view on Figures 5 through 13. It should be note that each fill sequence is not of uniform area, height, shape, or volume due to the required tie-in to existing topography, as well as the irregular shape of the final design contours; the area of each fill cell sequence were chosen to facilitate the progressive closure of the landfill through the focusing of landfilling within the defined areas of these proposed fill sequences. The fill sequencing at the Chapman Waste Disposal Site is shown to progress in a staged, counterclockwise sequencing across the waste footprint with placement occurring in defined lateral phases that gradually build up in elevation toward the proposed final waste contours. There are a set of base layer fill sequences (fill sequence 1 through 5) filled to an elevation of 326 masl; mid-layer of fill sequences (fill sequence 6 and 7) filled to an elevation of 333 masl; and a final pair of crown fill sequences (fill sequence 8 and 9) filled to an elevation of 334.7. In any area where the proposed cell boundaries are not abutting existing waste contours or are below final waste elevations, temporary side slopes are to be graded as waste is placed and maintained at 3:1 for all active cells. All fill sequence final slopes will be constructed at gradients no steeper than 4H:1V, based on the standards defined within O.Reg.232/98, with slightly gentler slopes (4.1H:1V) occurring locally with the mid-layer fill sequences to accommodate grading transitions.

As mentioned in Section 3.0, the active landfilling area is currently located within the central portion of the Site; however, historically waste deposition has occurred in the south end of the Site. It is proposed that deposition be concentrated in the south end of the approved fill area to the proposed base layer elevations progressing in a generally counterclockwise direction across the approved fill area.

Grade stakes or survey controls should be established to delineate each cell boundary and maximum permitted elevation. Once a set of laterally abutting lower layer cells have been filled to the specified contour (326 masl), the upper layer cell will be constructed to 333 masl over the 326 masl plateau portion of the base layer cells completing the fill sequence. The area that fill sequence 5 occupies is already close to the proposed height of the base sequences and as such, landfilling will be minimal across this stage of the fill plan sequence. Waste placement in each fill sequence is not to begin until the active cell is filled to its proposed elevation and sides are sloped, as required, to the appropriate grade. Thus, progressive closure may be carried out on completed fill sequence while operations continues in the next sequential fill sequence.

Fill sequences 1 and 2 occupy the south end of the fill area with fill sequence 1 located on the east end and fill sequence 2 located on the west end. When possible, it is proposed that a ramp method (area fill) be employed in which the waste is placed on the sloping face of previous fill sequence, thereby minimizing the ratio of cover material to waste. Within each cell, waste placement should be placed in

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0.5 m lifts that are subject to a compactive effort to fully utilize the remaining airspace with a 0.15 m lift of daily cover. Cover soil stockpiles should be located near the active cell, but outside drainage flow paths. Once fill sequence 1 and 2 are filled, fill sequences 3 and 4 are to be filled; these lower layer fill sequences occupy the east end of the approved fill area north of fill sequence 1. Since the remaining landfill area not occupied by fill sequences 1 through 4 are near the proposed height of waste of the lower layer fill sequences, operational efforts will mostly be focused on regrading (e.g. cut and fill). A 2 percent grade for drainage should also be maintained across the 326 masl plateau areas formed within each cells sequence directing stormwater to the landfill toe.

The first mid-layer fill sequence (fill sequence 6) will occupy the south end of the Site with the toe of the cell slope blending into the final slope contours of the lower layer fill sequences below. After fill sequence 6 is complete, fill sequence 7 is to be constructed on the northeast end of it. In order to facilitate mobile and heavy equipment access to the top of waste during landfilling operations, a portion of the west slope should be sloped appropriately for a ramp. Temporary haul routes are to be regraded as filling progresses and if deemed necessary, perimeter access roads must be maintained to ensure year-round accessibility.

Fill sequences 8 and 9, comprise the final two upper layer fill sequences, are to be constructed on the northwest end of the landfill bringing the waste withing the proposed waste boundary to the proposed final waste contours. The top eastern portions of these fill sequences form the crown of the landfill, and this area will have a grade of 20H:1V.

4.3 Waste Volume

The remaining Site volume was determined to be 38,268 cubic meters (m^3) as of June 2019 based on a review of the 2019 WCA. The was volume was determined by calculating the difference between surveyed ground surface as of 2019 and the contours of the conceptual closure plan. An additional topographic survey was completed for the Site on June 3, 2020. Based on a comparison of the 2019 and 2020 topographic surfaces, it was determined that a volume of approximately 4,750 m^3 was deposited at the Site over a one-year period. This additional waste deposition volume resulted in an estimated remaining Site capacity of 33,518 m^3 as of June 2020.

Pinchin retained Unmanned Aerial Services Inc. (UAS) to conduct a supplemental topographic survey of the Site utilizing a UAV on October 24, 2023. Based on a comparison of the 2020 and 2023 topographic surveys, it was estimated that a volume of approximately 9,680 m^3 of waste had been placed at the Site resulting in an annual waste deposition rate of approximately 2,904 m^3 per year and a remaining Site capacity of approximately 23,838 m^3 as of October 2023. Utilizing a 7-year average annual waste deposition rate of 3,385 m^3 per year, based on the results of surveys completed from 2016 until 2023, the remaining lifespan of the Site was estimated to be 7 years as of October 2023 assuming the Site is developed to its theoretical maximum capacity of 60,000 m^3.

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In the absence of additional topographic surveys for the Site in 2024 or 2025, Pinchin has assumed that the waste placement over the last two years continued at a constant average annual waste deposition rate of 3,385 m^3 per year. For the purposes of this Waste Fill Plan, the Site is assumed to have a remaining capacity of approximately 17,068 m^3 and a remaining lifespan of approximately 5 years as of October 2025.

4.3.1 Operational Changes

Any operational changes to the Site, such as changes in the volumes of waste received, will result in direct influences in the overall lifespan of the Site. The Municipality also operates the nearby Croft landfill. If fill operations were to be suspended at the Chapman Site, whether long-term or intermittently (e.g., suspending operations over winter (a seasonal dependent suspension of operations)), it is expected that the collected waste from the area currently serviced by the Chapman Site would instead be diverted to the Croft Site. If landfilling operations were to temporarily cease at the Chapman Waste Disposal Site, then the average annual deposition rate at the Croft Site would be approximately 4,243 m^3 (i.e., the sum of the average annual deposition at the Croft Site plus the average annual deposition at the Chapman Site).

In addition, changes to waste diversion or compaction practices would also have a direct impact on the remaining lifespan of the Site, and as a result, any such changes should be evaluated/assessed versus the effects on the lifespan of the asset.

5.0 PROPOSED FILL PLAN

5.1 Proposed Site Development

The proposed waste deposition plan comprises of nine (9) fill sequences as illustrated in plan view on Figures 5 through 13. It should be noted that each fill sequence is not of uniform area, height, shape, or volume due to the required tie-in to existing topography, as well as the irregular shape of the final design contours; the area of each fill cell sequence were chosen to facilitate the progressive closure of the landfill through the focusing of landfilling within the defined areas of these proposed fill sequences. The fill sequencing at the Chapman Waste Disposal Site is shown to progress in a staged, counterclockwise sequencing across the waste footprint with placement occurring in defined lateral phases that gradually build up in elevation toward the proposed final waste contours. There are a set of base layer fill sequences (fill sequence 1 through 5) filled to an elevation of 326 masl; mid-layer of fill sequences (fill sequence 6 and 7) filled to an elevation of 333 masl; and a final pair of crown fill sequences (fill sequence 8 and 9) filled to an elevation of 334.7. In any area where the proposed cell boundaries are not abutting existing waste contours or are below final waste elevations, temporary side slopes are to be graded as waste is placed and maintained at 3:1 for all active cells. All fill sequence final slopes will be constructed

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at gradients no steeper than 4H:1V, based on the standards defined within O.Reg.232/98, with slightly gentler slopes (4.1H:1V) occurring locally with the mid-layer fill sequences to accommodate grading transitions.

As mentioned in Section 2.3, the active landfilling area is currently located within the central portion of the Site; however, historically waste deposition has occurred in the south end of the Site. It is proposed that deposition be concentrated in the south end of the approved fill area to the proposed base layer elevations progressing in a generally counterclockwise direction across the approved fill area.

Grade stakes or survey controls should be established to delineate each cell boundary and maximum permitted elevation. Once a set of laterally abutting lower layer cells have been filled to the specified contour (326 masl), the upper layer cell will be constructed to 333 masl over the 326 masl plateau portion of the base layer cells completing the fill sequence. The area that fill sequence 5 occupies is already close to the proposed height of the base sequences and as such, landfilling will be minimal across this stage of the fill plan sequence. Waste placement in each fill sequence is not to begin until the active cell is filled to its proposed elevation and sides are sloped, as required, to the appropriate grade. Thus, progressive closure may be carried out on completed fill sequence while operations continues in the next sequential fill sequence.

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Fill sequences 8 and 9, comprise the final two upper layer fill sequences, are to be constructed on the northwest end of the landfill bringing the waste within the proposed waste boundary to the proposed final waste contours. The top eastern portions of these fill sequences form the crown of the landfill, and this area will have a grade of 20H:1V.

6.0 CLOSURE

We trust that this Waste Fill Plan is suitable to address your current concerns. Should you have any questions or concerns regarding the contents of this letter, please contact the Project Manager, Alana Valle, at 705.521.0560, or by email at avalle@pinchin.com.

Yours truly,

Pinchin Ltd.

Prepared by:

Greg Way, B.Sc.
Project Manager

Reviewed by:

Tim McBride, B.Sc., P.Geo., QP_{ESA}
Practice Specialist – Hydrogeology
Director, Northern Ontario

Encl.: Appendix I – Figures
Appendix II – Environmental Compliance Approval
Appendix III – Borehole Logs

Template: Master Letter Template, July 16, 2025

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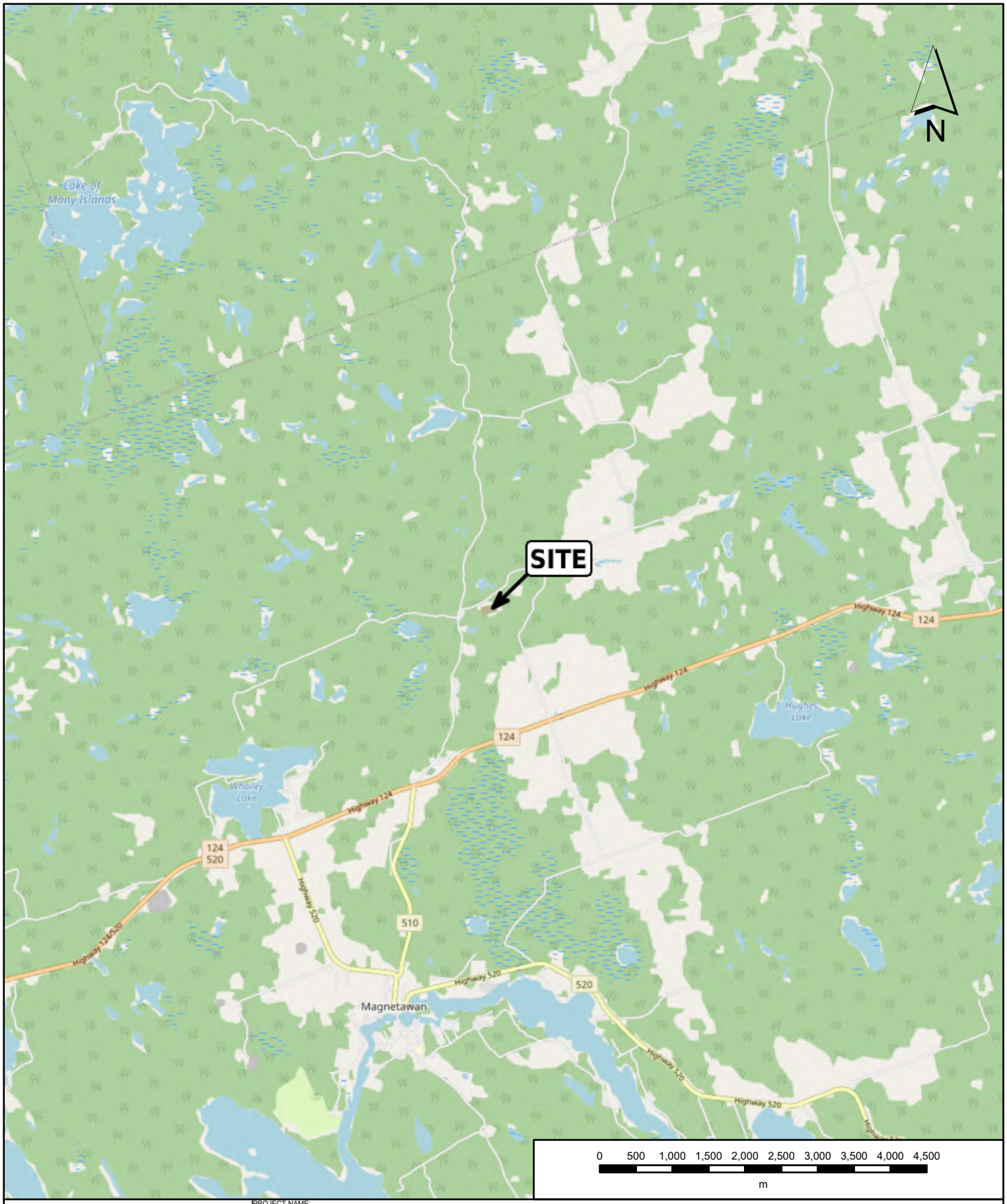
APPENDIX I

Figures



PINCHIN

PROJECT NAME:	WASTE FILL PLAN
CLIENT NAME:	MUNICIPALITY OF MAGNETAWAN
PROJECT LOCATION:	CHAPMAN WASTE DISPOSAL SITE, MAGNETAWAN, ONTARIO
FIGURE NAME:	KEY MAP
FIGURE NUMBER	1

PROJECT NUMBER:	SCALE:	DRAWN BY:	REVIEWED BY:	DATE:
225335.007	AS SHOWN	NJ	AN	JANUARY 2026

LEGEND

- SITE BOUNDARY
- UAV IMAGE
- PREVIOUSLY PROPOSED 1.2 Ha WASTE BOUNDARY
- NEWLY PROPOSED 1.2Ha WASTE BOUNDARY
- TREE LINE

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DISPOSAL SITE, MAGNETAWAN, ONTARIO	
FIGURE NAME: SITE PLAN	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: NJ	REVIEWED BY: TM
DATE: JANUARY 2026	FIGURE NUMBER: 2

N

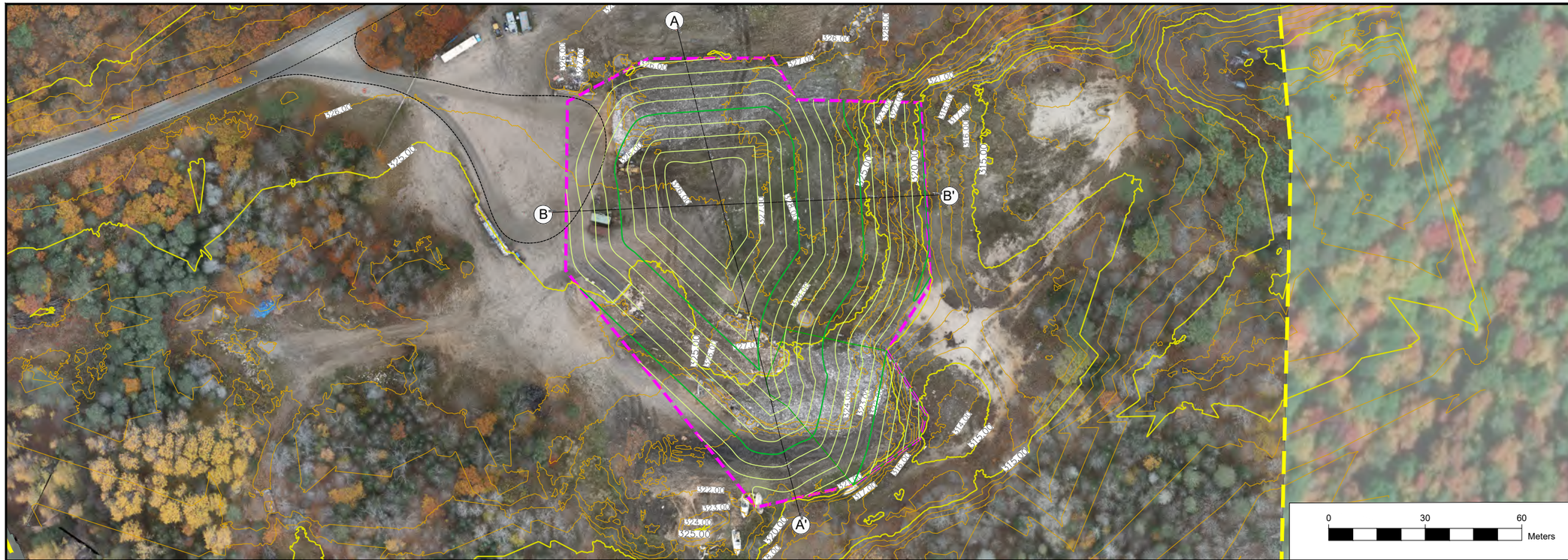
LEGEND

- EXTENT OF SURVEY IMAGE
- EXISTING GROUND MAJOR CONTOUR LINES (5 m)
- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
FIGURE NAME: EXISTING SITE PLAN	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 3



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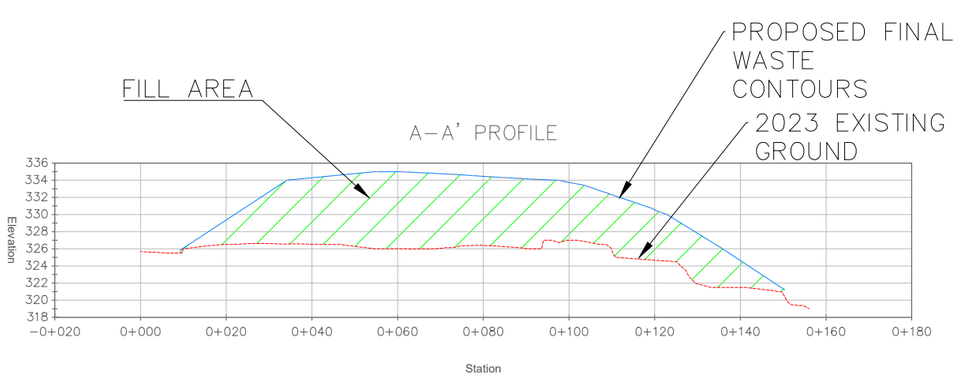
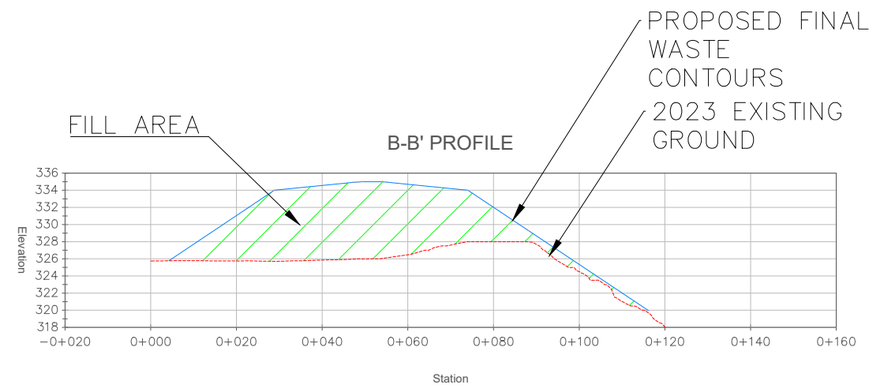
LEGEND

- EXTENT OF SURVEY IMAGE
- EXISTING GROUND MAJOR CONTOUR LINES (5 m)
- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY
- FINAL WASTE MAJOR CONTOUR LINES (5 m)
- FINAL WASTE MINOR CONTOUR LINES (1 m)



VERTICAL EXAGERRATION 2



VERTICAL EXAGERRATION 2

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PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
FIGURE NAME: CROSS-SECTION AND PROPOSED FINAL WASTE CONTOURS	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 4

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LEGEND

- EXTENT OF SURVEY IMAGE
- EXISTING GROUND MAJOR CONTOUR LINES (5 m)
- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY
- SEQUENCE MAJOR CONTOUR LINES (5 m)
- SEQUENCE GROUND MINOR CONTOUR LINES (1 m)

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PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
FIGURE NAME: FILL SEQUENCE 1	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 5

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LEGEND

- EXTENT OF SURVEY IMAGE
- EXISTING GROUND MAJOR CONTOUR LINES (5 m)
- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY
- SEQUENCE MAJOR CONTOUR LINES (5 m)
- SEQUENCE GROUND MINOR CONTOUR LINES (1 m)

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PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
FIGURE NAME: FILL SEQUENCE 2	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 6

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LEGEND

- EXTENT OF SURVEY IMAGE
- EXISTING GROUND MAJOR CONTOUR LINES (5 m)
- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY
- SEQUENCE MAJOR CONTOUR LINES (5 m)
- SEQUENCE GROUND MINOR CONTOUR LINES (1 m)

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PINCHIN

PROJECT NAME:
WASTE FILL PLAN

CLIENT NAME:
MUNICIPALITY OF MAGNETAWAN

PROJECT LOCATION:
CHAPMAN WASTE DEPOSIT SITE
MAGNETAWAN, ONTARIO

FIGURE NAME:
FILL SEQUENCE 3

PROJECT NUMBER:	SCALE:
225335.007	AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 7

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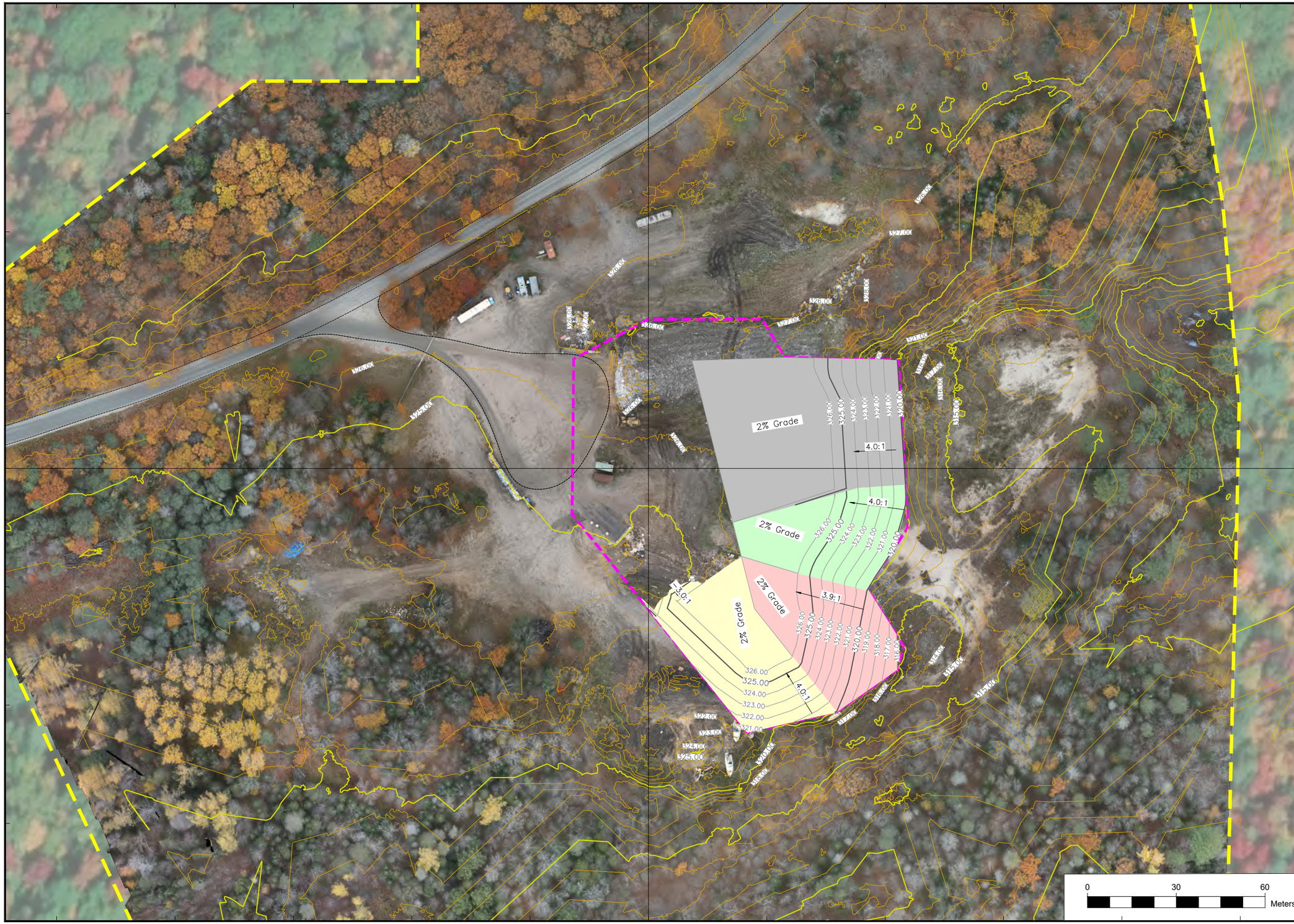

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PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
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PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 8

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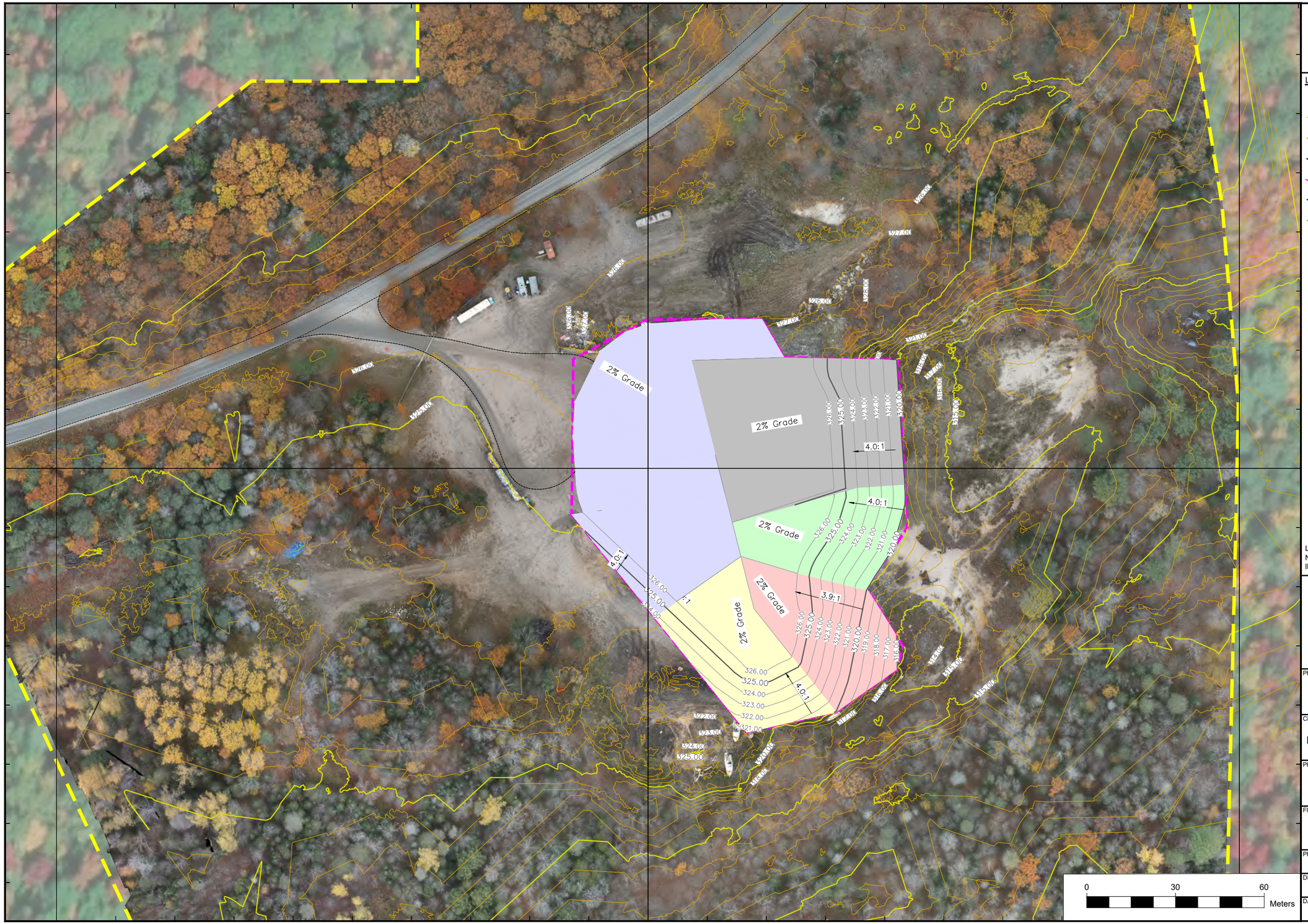

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- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY
- SEQUENCE MAJOR CONTOUR LINES (5 m)
- SEQUENCE GROUND MINOR CONTOUR LINES (1 m)

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
FIGURE NAME: FILL SEQUENCE 5	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 9

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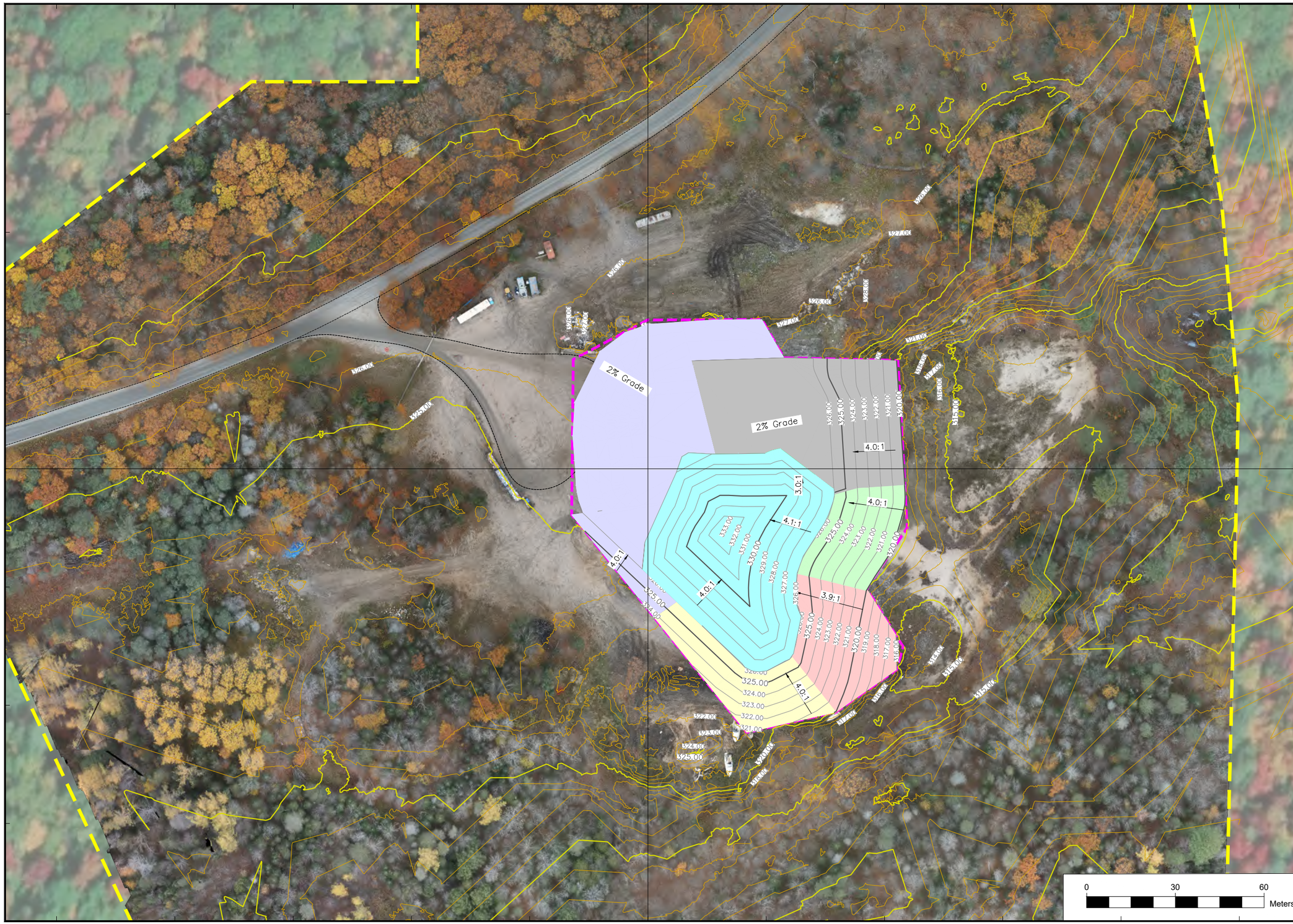

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LEGEND

- EXTENT OF SURVEY IMAGE
- EXISTING GROUND MAJOR CONTOUR LINES (5 m)
- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY
- SEQUENCE MAJOR CONTOUR LINES (5 m)
- SEQUENCE GROUND MINOR CONTOUR LINES (1 m)

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
FIGURE NAME: FILL SEQUENCE 6	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 10

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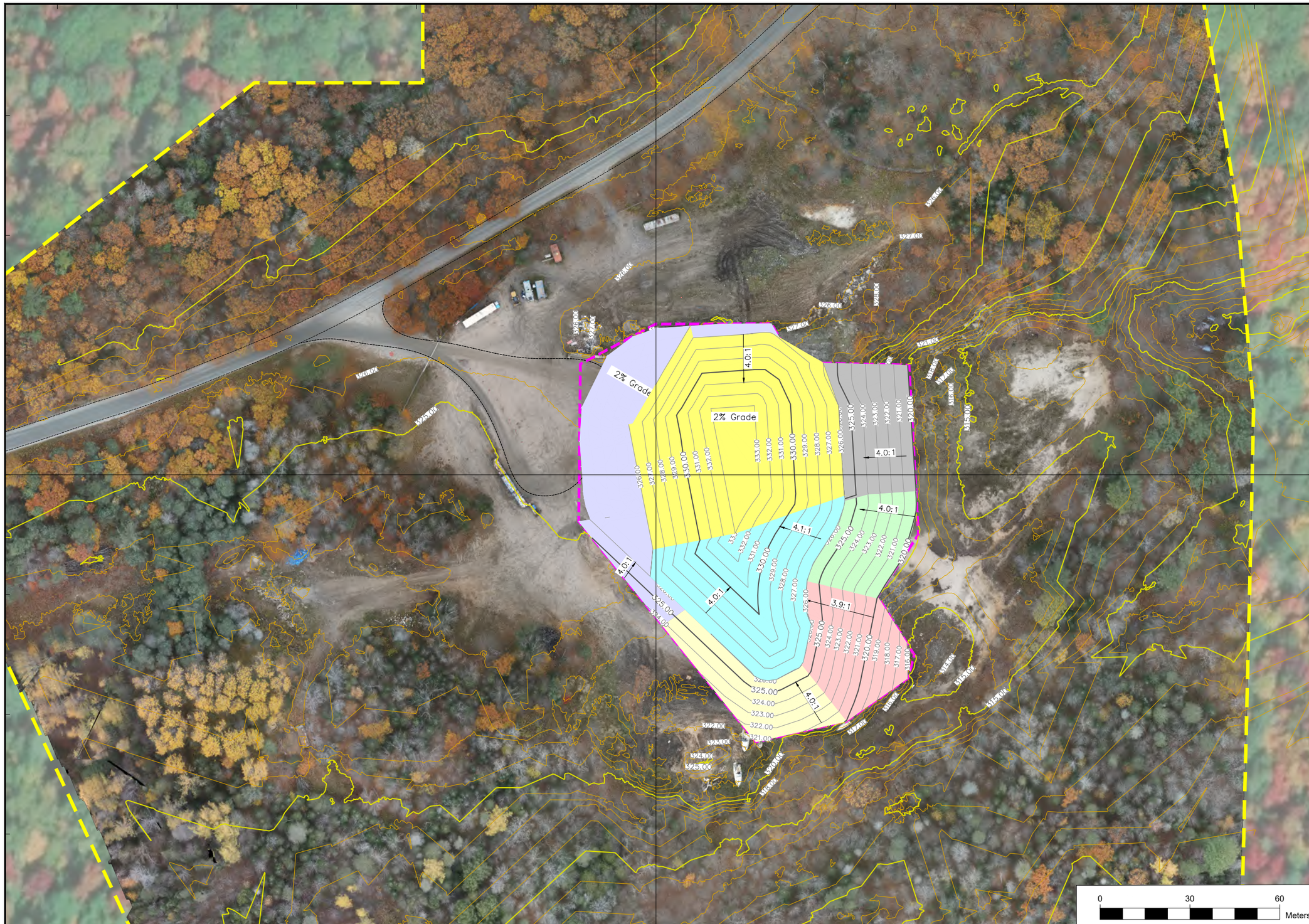

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LEGEND

- EXTENT OF SURVEY IMAGE
- EXISTING GROUND MAJOR CONTOUR LINES (5 m)
- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY
- SEQUENCE MAJOR CONTOUR LINES (5 m)
- SEQUENCE GROUND MINOR CONTOUR LINES (1 m)

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
FIGURE NAME: FILL SEQUENCE 7	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 11

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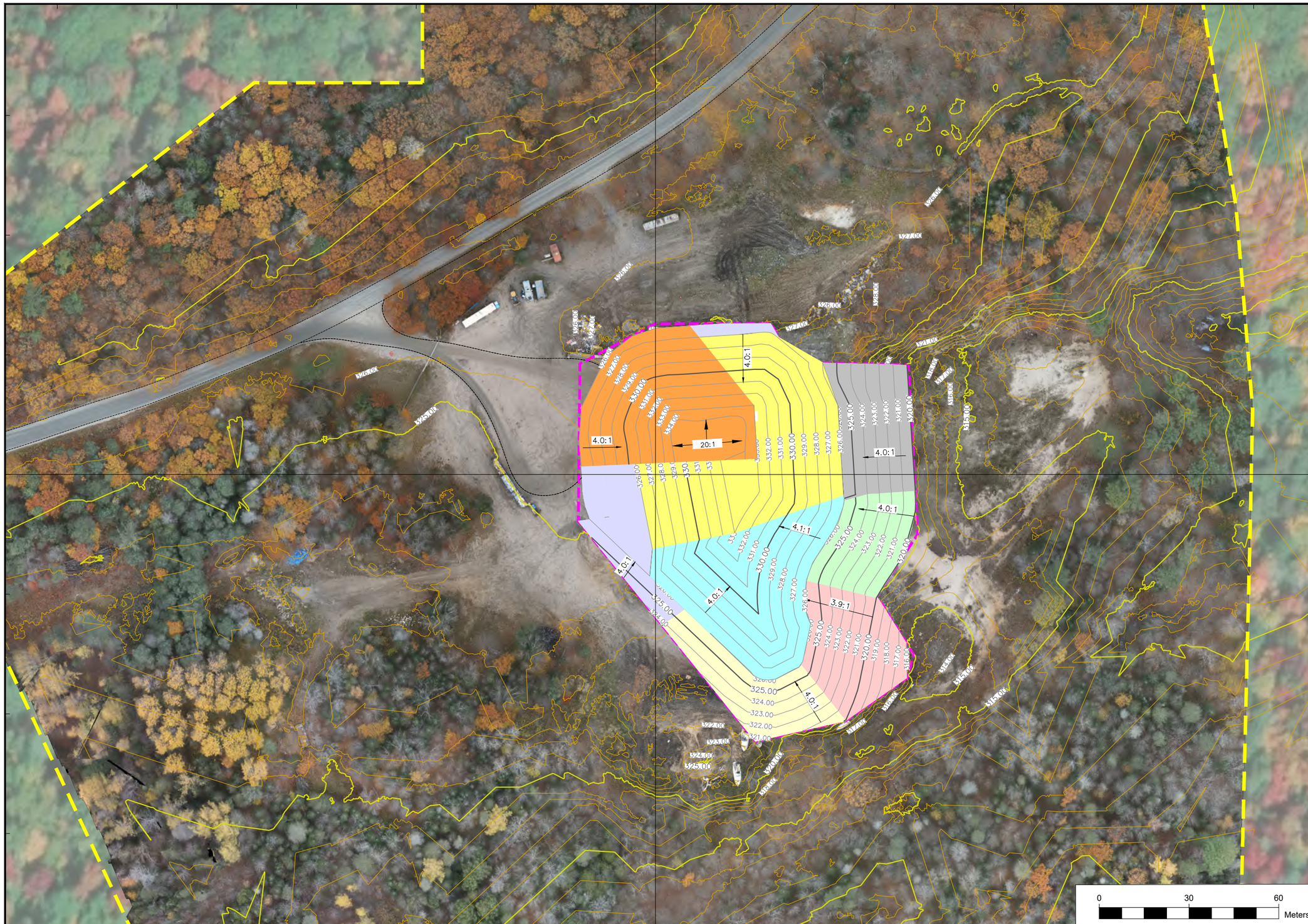

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LEGEND

- EXTENT OF SURVEY IMAGE
- EXISTING GROUND MAJOR CONTOUR LINES (5 m)
- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY
- SEQUENCE MAJOR CONTOUR LINES (5 m)
- SEQUENCE GROUND MINOR CONTOUR LINES (1 m)

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
FIGURE NAME: FILL SEQUENCE 8	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 12

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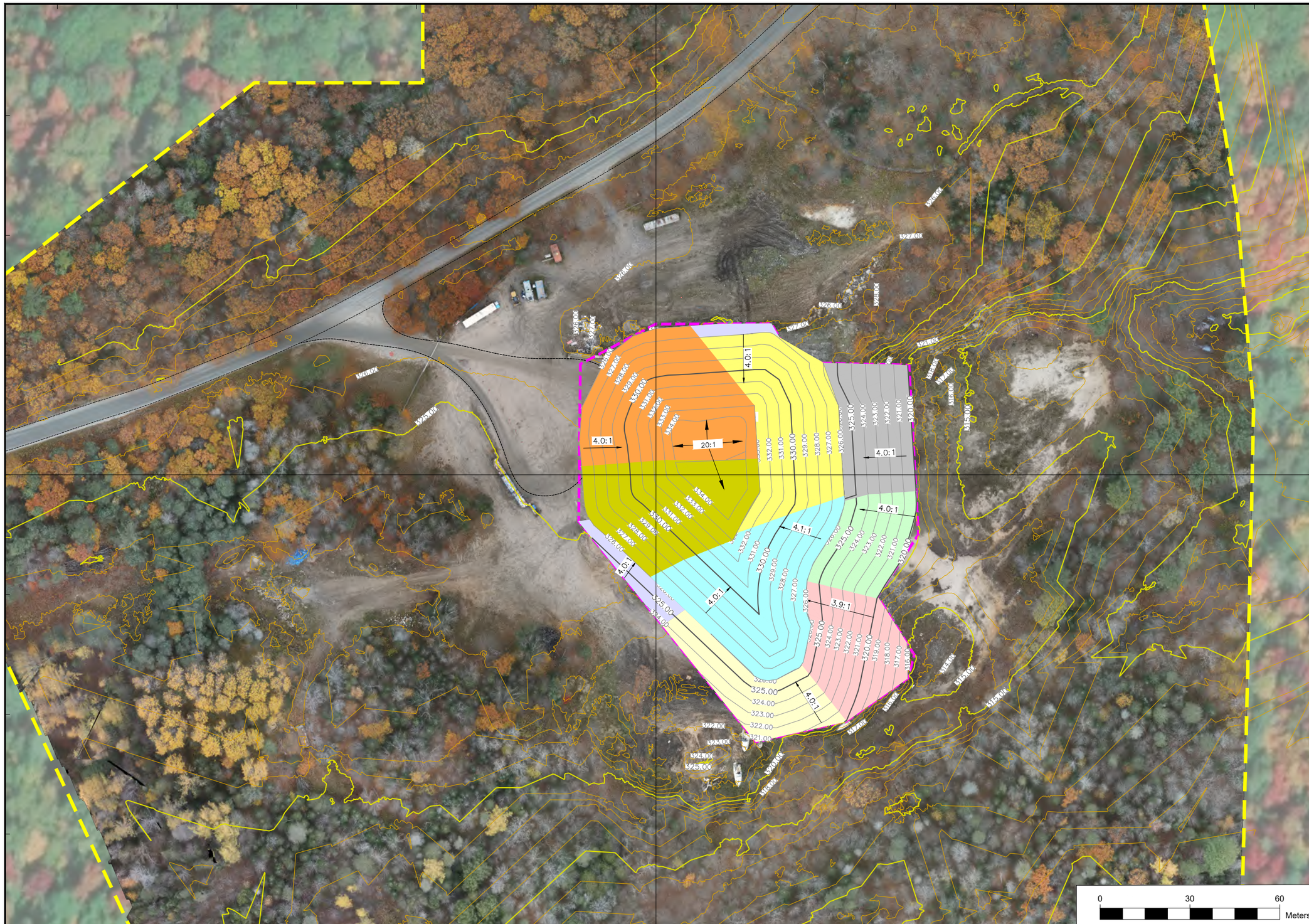

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LEGEND

- EXTENT OF SURVEY IMAGE
- EXISTING GROUND MAJOR CONTOUR LINES (5 m)
- EXISTING GROUND MINOR CONTOUR LINES (1 m)
- ACCESS ROAD
- PROPOSED WASTE BOUNDARY
- SEQUENCE MAJOR CONTOUR LINES (5 m)
- SEQUENCE GROUND MINOR CONTOUR LINES (1 m)

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME: WASTE FILL PLAN	
CLIENT NAME: MUNICIPALITY OF MAGNETAWAN	
PROJECT LOCATION: CHAPMAN WASTE DEPOSIT SITE MAGNETAWAN, ONTARIO	
FIGURE NAME: FILL SEQUENCE 9	
PROJECT NUMBER: 225335.007	SCALE: AS SHOWN
DRAWN BY: KL	REVIEWED BY: AV
DATE: JANUARY 2026	FIGURE NUMBER: 13

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APPENDIX II

Environmental Compliance Approval

Ministry of the Environment
Ontario

Provisional Certificate No. A 521202

PROVISIONAL CERTIFICATE OF APPROVAL
WASTE DISPOSAL SITE

Under The Environmental Protection Act, 1971 and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to:

Township of Chapman
Box 70, R.R. # 1
Magnetawan, Ontario
POA 1PO

for the use and operation of a 1.2 hectare dump site

all in accordance with the following plans and specifications:

Located: Lot 108, Concession A
Township of Chapman
District of Parry Sound

which includes the use of the site only for the receiving and disposal of the following categories of waste (NOTE: Use of the site for additional categories of wastes requires a new application and amendments to the Provisional Certificate of Approval) domestic and commercial wastes.

and subject to the following conditions:

1. No operation shall be carried out at the site after sixty days from this condition becoming enforceable unless this Certificate including the reasons for this condition has been registered by the applicant as an instrument in the appropriate Land Registry Office against title to the site and a duplicate registered copy thereof has been returned by the applicant to the Director.

Dated this 20th day of March, 1980.

Director, Section 39,
The Environmental Protection Act, 1971

APPENDIX II

Borehole Logs

Log of Borehole: BH3-II

Project #: 225335.001 **Logged By:** KM

Project: Hydrogeology Assessment

Client: Municipality of Magnetawan

Location: Chapman Waste Disposal Site, Magnetawan, Ontario

Drill Date: September 28, 2018 **Project Manager:** TM

SUBSURFACE PROFILE					SAMPLE	
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Sample #	Recovery (%)
		Ground Surface	0.00			
		Sand Brown sand, some gravel, dry, no PHC odour or staining.	3.05	Riser; Bentonite		
		Sand and Silt Grey sand and silt, damp, no PHC odour or staining.	3.66		SS1	
		Sand and Silt Grey sand and silt, saturated, no PHC odour or staining.	6.10	Screen; Silica Sand	SS2	
		End of Borehole				

Contractor: CCC

Drilling Method: Hollow Auger

Well Casing Size: 5.08 cm

957 Cambrian Heights Drive
Suite 203
Sudbury, ON P3C 5S5

Grade Elevation: NA

Top of Casing Elevation: NA

Sheet: 1 of 1

Log of Borehole: BH4-II

Project #: 225335.001 **Logged By:** KM

Project: Hydrogeology Assessment

Client: Municipality of Magnetawan

Location: Chapman Waste Disposal Site, Magnetawan, Ontario

Drill Date: September 27, 2018 **Project Manager:** TM

SUBSURFACE PROFILE					SAMPLE	
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Sample #	Recovery (%)
		Ground Surface	0.00			
		Sand Coarse brown sand, some gravel, dry, no PHC odour or staining.	3.05	Riser; Bentonite		
		Sand and Gravel Coarse brown sand and gravel, trace cobbles, damp, no PHC odour or staining.	3.96		SS1	
		Bedrock Bedrock. Auger refusal on assumed bedrock. Sand seam at 20'.	8.44	Screen; Silica Sand		
		End of Borehole				

Contractor: CCC

Drilling Method: Hollow Auger

Well Casing Size: 5.08 cm

957 Cambrian Heights Drive
Suite 203
Sudbury, ON P3C 5S5

Grade Elevation: NA

Top of Casing Elevation: NA

Sheet: 1 of 1

Log of Borehole: BH6-III

Project #: 225335.001 **Logged By:** KM

Project: Hydrogeology Assessment

Client: Municipality of Magnetawan

Location: Chapman Waste Disposal Site, Magnetawan, Ontario

Drill Date: September 28, 2018 **Project Manager:** TM

SUBSURFACE PROFILE					SAMPLE	
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Sample #	Recovery (%)
		Ground Surface	0.00			
		Sand and Gravel Coarse sand and gravel, some cobbles, damp, no PHC odour or staining.	3.05	Riser; Bentonite		
		Sand and Gravel Coarse sand and gravel, large cobbles, damp, no PHC odour or staining.	3.96		SS1	
		Bedrock Bedrock. Auger refusal on assumed bedrock.	6.30	Screen; Silica Sand		
		End of Borehole				

Contractor: CCC

Drilling Method: Hollow Auger

Well Casing Size: 5.08 cm

957 Cambrian Heights Drive
Suite 203
Sudbury, ON P3C 5S5

Grade Elevation: NA

Top of Casing Elevation: NA

Sheet: 1 of 1

Log of Borehole: BH8-I

Project #: 225335.001 **Logged By:** KM

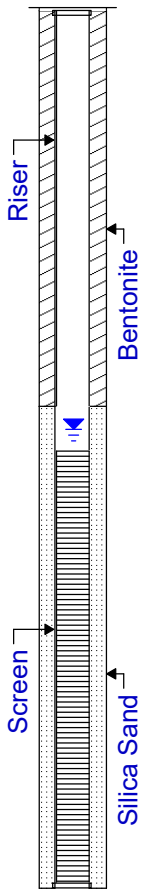
Project: Hydrogeology Assessment

Client: Municipality of Magnetawan

Location: Chapman Waste Disposal Site, Magnetawan, Ontario

Drill Date: September 27, 2018 **Project Manager:** TM

SUBSURFACE PROFILE					SAMPLE	
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Sample #	Recovery (%)
		Ground Surface	0.00			
		Sand Coarse, brown sand with some gravel, no PHC odour or staining.				
					SS1	
			4.27			
		Sand and Gravel Coarse, brown sand and gravel, trace cobbles, no PHC odour or staining.			SS2	
			6.05			
		End of Borehole				



Contractor: CCC

Drilling Method: Hollow Auger

Well Casing Size: 5.08 cm

957 Cambrian Heights Drive
Suite 203
Sudbury, ON P3C 5S5

Grade Elevation: NA

Top of Casing Elevation: NA

Sheet: 1 of 1

Log of Borehole: BH9-I

Project #: 225335.001 **Logged By:** KM

Project: Hydrogeology Assessment

Client: Municipality of Magnetawan

Location: Chapman Waste Disposal Site, Magnetawan, Ontario

Drill Date: September 28, 2018 **Project Manager:** TM

SUBSURFACE PROFILE					SAMPLE	
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Sample #	Recovery (%)
		Ground Surface	0.00			
		Sand Coarse brown sand, damp, no PHC odour or staining.	4.27	Riser; Bentonite		
					SS1	
		Sand and Silt Coarse brown sand and fine brown sand and silt, trace gravel, saturated, no PHC odour or staining.		Screen; Silica Sand	AS1	
		Refusal at 27' on assumed bedrock.	8.23		AS2	
		End of Borehole				

Contractor: CCC

Drilling Method: Hollow Auger

Well Casing Size: 5.08 cm

957 Cambrian Heights Drive
Suite 203
Sudbury, ON P3C 5S5

Grade Elevation: NA

Top of Casing Elevation: NA

Sheet: 1 of 1

Log of Borehole: BH10-I

Project #: 225335.001 **Logged By:** KM

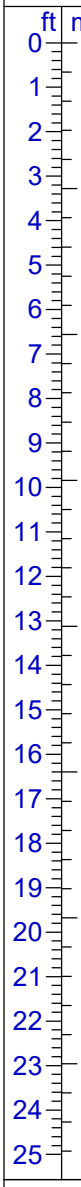
Project: Hydrogeology Assessment

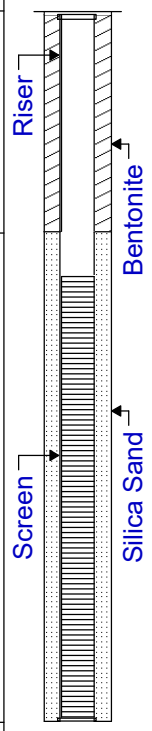
Client: Municipality of Magnetawan

Location: Chapman Waste Disposal Site, Magnetawan, Ontario

Drill Date: September 26, 2018 **Project Manager:** TM

SUBSURFACE PROFILE					SAMPLE	
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Sample #	Recovery (%)
		Ground Surface	0.00			
		Sand Coarse, brown sand, some gravel, trace cobbles, damp, no PHC odour or staining.	1.52	Riser; Bentonite		
		Bedrock Refusal on assumed bedrock.	4.88	Screen; Silica Sand		
		End of Borehole				





Contractor: CCC

Drilling Method: Hollow Auger

Well Casing Size: 5.08 cm

957 Cambrian Heights Drive
Suite 203
Sudbury, ON P3C 5S5

Grade Elevation: NA

Top of Casing Elevation: NA

Sheet: 1 of 1

Log of Borehole: BH11

Project #: 225335 **Logged By:** KM

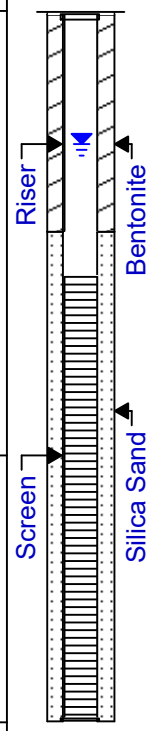
Project: Hydrogeology Assessment

Client: Municipality of Magnetawan

Location: Chapman Waste Disposal Site, Magnetawan, Ontario

Drill Date: September 26, 2018 **Project Manager:** TM

SUBSURFACE PROFILE					SAMPLE	
Depth (ft / m)	Symbol	Description	Measured Depth (m)	Monitoring Well Details	Sample #	Recovery (%)
		Ground Surface	0.00			
		Sand and Silt Brown sand with silt, damp, no PHC odour or staining.			SS1	
			3.05			
		Sand Coarse, brown sand, saturated, no PHC odour or staining.			SS2	
					AS1	
			4.88			
		End of Borehole				



Contractor: CCC

Drilling Method: Hollow Auger

Well Casing Size: 5.08 cm

957 Cambrian Heights Drive
Suite 203
Sudbury, ON P3C 5S5

Grade Elevation: NA

Top of Casing Elevation: NA

Sheet: 1 of 1