



January 27, 2021  
Our File: 420112

City of Guelph  
Development Planning  
1 Carden Street  
Guelph, ON N1H 3A1

Attention: Mr. Peter Rider

Re: 33-37 Arkell Road and 1408 Gordon Street  
City of Guelph  
Salt Management Plan

Dear Mr. Rider,

The following Salt Management Plan has been prepared for the proposed development at 515 Hanlon Creek Boulevard, in the City of Guelph.

### **1.0 Introduction & Objectives**

GM BluePlan Engineering Limited was retained by the Owner to prepare a Salt Management Plan as a part of a Zoning By-law Amendment Application submission for the building and associated parking development to be constructed at 33-37 Arkell Road and 1408 Gordon Street in the City of Guelph.

This Salt Management Plan will present an overview of the salt management practices to be implemented on site. The best management practices for salt management will include the consideration of alternative products, use of controlled application rates, recommended operations, and proper supervision. Implementation and monitoring of the Salt Management Plan is the responsibility of the Owner.

### **2.0 Identification of Traffic Areas and Sensitive Features**

Special precautions will be taken to protect any areas which will see vehicular or pedestrian traffic. Areas that will see high vehicular traffic include the driveway entrances off of Arkell Road and Gordon Street, the garage entrance at the southeast portion of the site and the loading docks near the Arkell Road entrance. Sidewalks around the primary and southerly entrances to the building are anticipated to experience high pedestrian and employee use.

There are no sensitive features identified within the Site area.

### **3.0 Identification of Snow-Storage/Disposal Areas**

There is one (1) snow storage area located at the southeast side of the site as indicated on the Salt Management Plan Figure (prepared by GM BluePlan Engineering Limited). It is anticipated that this area will provide sufficient space for the predicted snow volumes. Runoff from the snow storage area will be directed to the on-site storm sewers, ultimately discharging to the existing storm sewer along Gordon Street.

Salt will not be stored on-site, as winter maintenance will be provided by a third-party maintenance contractor.

#### 4.0 Use of Alternative Products

The proposed use of alternative winter de-icing agents is limited to the use of sand, salt, and de-icer, to minimize the potential concentrations of sodium and chloride in meltwater. In order to employ the most effective method in salt reduction, it is recommended to utilize a variety of products consisting of sand, sand/salt mixture, and environmentally friendly de-icer (i.e. no salt) depending on site location, and site fractures (i.e. sidewalks). The monitoring of product application and effectiveness is subject to authorization by the Owner.

#### 5.0 Engineered Measures

Runoff generated from the salt-treated impervious surfaces will be directed to the on-site storm, prior to discharge from the site. Roof water will discharge to the on-site infiltration gallery.

#### 6.0 Operational Measures

The following operational measures are recommended to minimize the use and application of road salt:

- Plowing of snow as required on driveways, parking areas, sidewalks and internal roads following snowfall events or as required to ensure safe passage for motorists and pedestrians.
- Application of a ratio of sand/salt mixture immediately following plowing, if required. The application of a sand/salt mixture is not mandatory after each snow clearing operation.
- A sand/salt mixture will not be applied unless ice conditions develop.
- Monitoring and documenting the application of a sand/salt mixture (i.e. frequency, concentration, etc.).
- Storage of all plowed snow is to be in an area appropriately designed for snow storage to minimize the impact of salt on environmental features, to a height which will not block the view of motorists and pedestrians and will not impede surface drainage.
- Snow will be removed typically with mechanical methods only by a Contractor. A winter maintenance Contractor shall be retained for this work.
- Equipment for snow removal will be stored off site and only brought to site during a snow event.
- No liquid materials are to be stored on site.
- No snow removal equipment washing is to occur on site.
- Site inspections by the winter maintenance Contractor shall be conducted regularly.
- Excess snow shall be hauled to a properly designed offsite snow disposal facility/site.
- Snowdrifts shall be controlled by frequent plowing as needed.
- The winter maintenance Contractor shall be required to monitor local weather forecasts and be prepared before an event occurs.
- The winter maintenance Contractor shall be trained in winter maintenance practices.
- The winter maintenance Contractor shall be trained to handle a salt spill.
- Both the site and the winter maintenance Contractor shall be '*Smart about Salt*' certified.

The monitoring of product application and effectiveness is subject to review by the Owner.

#### 7.0 Adaptive Monitoring/Management

An annual review of the Salt Management Plan for 33-37 Arkell Road and 1408 Gordon Street is recommended to be completed by the Owner and/or Contractor on an annual basis to identify the effectiveness of the Salt Management Plan and mitigate/adjust any components of the Plan (i.e. a change in application area).

## 8.0 Summary

GM BluePlan Engineering Limited has prepared this Salt Management Report in support of the Zoning By-law Amendment Application for 33-37 Arkell Road and 1408 Gordon Street in the City of Guelph. This Salt Management Plan has identified high traffic areas and has developed a number of precautions including snow-storage/disposal, alternative products, engineered measures, and operational measures in order to mitigate the negative effects associated with winter salt application. No significant sensitive features have been identified. The recommendations of this Plan shall be the responsibility of the Owner and/or winter maintenance Contractor.

## 9.0 Site Plan Drawing

Details of the Salt Management Plan are shown on the Salt Management Plan Figure (GM BluePlan Engineering Limited, FIG-4) which illustrates the following:

- North arrow and scale
- Buildings including entrances
- Paved areas including parking and connecting roads
- Sidewalks and any wheelchair access areas
- Significant vegetation and grassed areas
- Site entrances and exits and surrounding streets
- Snow storage areas

This plan includes our best estimate of the necessary salt management practices for this site. This salt management plan is to be used as a guide by the winter maintenance Contractor for the winter operation of this facility.

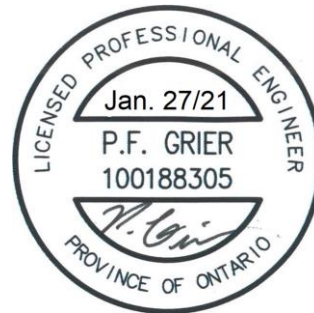
Yours truly,

**GM BLUEPLAN ENGINEERING LIMITED**

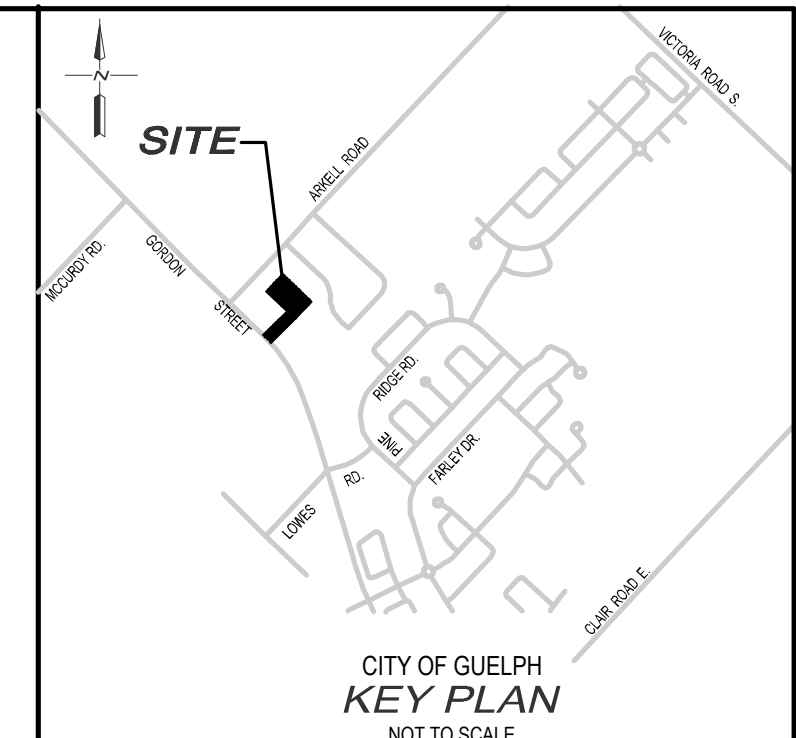
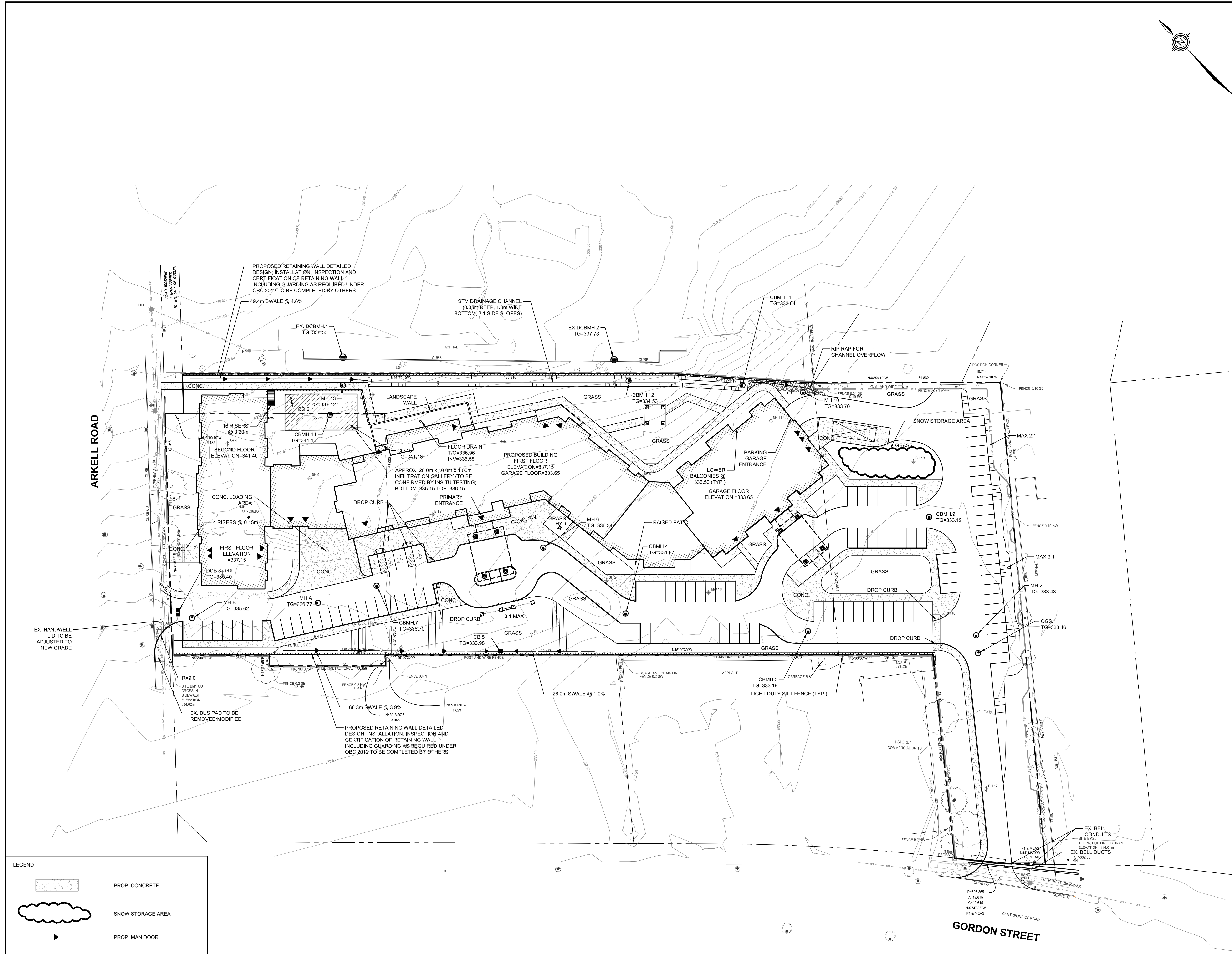
Per:

A handwritten signature in black ink, appearing to read 'P. Grier'.

Patrick Grier, P.Eng.  
PG/



Encl.



- NOTES :
- LEGAL AND TOPOGRAPHIC INFORMATION BY VAN HARTEN SURVEYING INC DATED AUGUST 30, 2012. SUPPLEMENTAL SURVEY PROVIDED BY VAN HARTEN SURVEYING INC. DATED JUNE 17, 2020
  - SITE PLAN PREPARED BY IBI GROUP DATED DECEMBER 8, 2020
  - BOREHOLE AND GEOTECHNICAL FROM CVD REPORT DATED JANUARY 05, 2021

BENCH MARKS :

THE POSITION OF POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED.

BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO THEM.

NO.	DATE	REVISION DESCRIPTION	CHKD
2.	01/27/2021	ISSUED TO CLIENT FOR ZONE CHANGE	G.E.A.
1.	01/08/2021	ISSUED TO CLIENT FOR REVIEW	G.E.A.

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33-41 ARKELL ROAD & 1408 GORDON STREET  
ASC (GUELPH) FACILITY LIMITED PARTNERSHIP  
CITY OF GUELPH

SALT MANAGEMENT PLAN

DRAWN BY: D.J.I.	APPROVED BY: S.J.P.	PROJECT NO. : 420112	DRAWING NO. : FIG-4
DESIGNED BY: P.F.G.	DATE: NOVEMBER 2020	SCALE: 1:500	

LEGEND

- PROP. CONCRETE
- SNOW STORAGE AREA
- PROP. MAN DOOR