Amarlinc Earthworks Inc.,

Township of Amaranth

Site Alteration and Fill Management Plan

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Submitted by:

SCS CONSULTING GROUP LTD
30 Centurian Drive, Suite 100
Markham, ON, L3R 8B8
Phone 905 475 1900
Fax 905 475 8335

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1.0 INTRODUCTION

Amarlinc Earthworks Inc. (Amarlinc), the Owner of 513151 2nd Line, has reviewed their plans with the Township of Amaranth to allow approximately 800,000 cubic metres of acceptable fill material to be placed on their property over a duration of three (3) to five (5) years or more based on market availability. Amarlinc has presented to Council on July 11, 2018 and undertaken background studies as reviewed with Township.

The property at 513151 2nd Line, Amaranth, is a 42.5-hectare rectangular shaped parcel of land with approximately 610 metres of frontage onto the east side of 2nd Line, approximately 1200 metre north of Highway 109/Broadway. The property is a gravel pit that has previously been mined for aggregates under the Aggregate Resources Act. Commencement of this fill operation under the Township Site Alteration Permit can begin at permit issuance as the Ministry of Natural Resources and Forestry (MNRF) will be surrendered the property's aggregate extraction license. The Owner will fill the Site under a Site Alteration Permit issued by the Township for the duration of the works, entering into an Agreement to comply with the requirements of the Township's Site Alteration By-law and this Fill Management Plan (FMP). This Fill Management Plan represents the operational manual outlining the requirements for the Owner, Amarlinc Earthworks Inc., to adhere to during the filling program.

The FMP has been prepared in accordance with the requirements of Township of Amaranth Site Alteration By-law #65-2009 including amending By-laws #28-2014 and #44-2017, Ontario Regulation 406/19 On site and excess soil managements well as referencing Ministry of Environment, Conservation and Parks (MECP) Best Management Practices and their draft Excess Soil Management Policy. The Owner and the Township of Amaranth will enter into a legal agreement (the Agreement) which outlines the details of the Site Alteration and includes among other things the content of the FMP.

1.1 DEFINITIONS

For the purposes of this SA&FMR, the following shall have the meanings described below:

"Agreement"	A written agreement that the Owner and any contractor of the Owner must enter into with the Township, as approved by Council, to be engaged in any Site Alteration or Large Site Alteration.
"Fill"	Any type of material deposited or placed on lands and includes soil, topsoil, aggregate material, stone, concrete, peat, sod or turf either singly or in combination. (Amaranth)
"O.Reg. 153/04, as amended"	The Records of Site Condition regulation under Part XV.I of the Environmental Protection Act, and any subsequent amendments.

O.Reg 406/19	O. Reg 406/19, and supporting amendments (the "Regulation") took effect under the province's Environmental Protection Act ("EPA"). The Regulation introduces a new framework for the excavation, removal and transport of "excess soils" between two or more sites.
"Owner"	Includes the registered owner of any property in the Township and any person, firm or corporation which controls any property in the Township. (Amaranth)
Project Leader	In O. Reg. 406/19, the Project Leader means, in respect of a project, the person or persons who are ultimately responsible for making decisions relating to the planning and implementation of the project. The Project Leader is responsible for ensuring that a Project Area Notice is filed if required. They must always complete and sign the required declarations that are a component of the notice being filed and pay Registry fees.
"QP" or "Qualified Person"	A Qualified Person as defined in O. Reg. 153/04 (Environmental Protection Act) as may be amended. For this Site Alteration & Fill Management Plan, the Qualified Person (QP) is to be certified as a QP_{ESA} for review and sign off for Environmental Site Assessments.
"Site Condition Standards"	Insert applicable definition per relevant By-Law.
"Township"	The Corporation of the Township of Amaranth. (Amaranth)

2.0 SITE ALTERATION AND FILL MANAGEMENT PLAN

2.1 PURPOSE OF THE SITE ALTERATION

The Site Alteration application is for the placement of approximately 800,000 m^3 of acceptable fill across the Site to raise the surface grades to closely match the pre-extraction operation grades from 1937. The proposed spot elevations will not be exceeded unless approved by the Township in order to match current surrounding grade. The Site is proposed to be filled in layers continuously until final grades are achieved. The proposed grading at the Site perimeter will match the existing grades at the adjacent property boundaries with the fill capped with a minimum of 0.3m of native material. It is estimated that the fill operation will have duration of three (3) to five (5) years or more based on market availability. The filling operation will be conducted by the Owner.

2.2 TIMING

Provide the timing of the Site Alteration activities such that no activities occur, as a minimum:

i. Between the hours of 7:00 p.m. and 7:00 a.m. Monday to Saturday;
ii. Anytime on a Sunday or Statutory Holiday;
iii. During any period in which a wind warning has been issued by Environment Canada;
iv. During any weather conditions where the ability to mitigate site alteration activity impacts is severely compromised (i.e., heavy rain, etc.); and
v. During any situation where site alteration activities can unduly impact adjacent landowners (i.e., brush fires, floods, unsuitable road conditions, etc.).

2.3 DRAWINGS AND CROSS SECTIONS

Prepared drawings include:

- Historic topographic drawing (1937) portraying pre-extraction conditions sourced from the Ontario Council of University Libraries' Historical Map Digitization Project, 2014;
- Proposed Grading Plan prepared by SCS Consulting Group; and
- Erosion and Sediment Plan prepared by SCS Consulting Group.

2.4 SURFACE WATER FLOW AND IMPACT

Given that the Site is generally lower in elevation than the perimeter topography following aggregate extraction and restoration, as required by the MNRF, at the commencement of the site alteration under the Township permit there will not be on-Site surface waters that will flow external to the Site.

During filling, drainage controls will be put into place to ensure on-Site surface water does not flow externally and negatively affect neighbouring properties. The requirements for the drainage controls are outlined in the Erosion and Sediment Control Plan, and Grading Plan.

Approaching filling completion, the Site topography will be shaped into that of its conditions prior to aggregate extraction. As the filling progresses to a point where the internal elevations are equal in elevation to the perimeter or boundary grading, sediment control fencing will be required to ensure any sediment contained in drainage flowing as per the approved plan is contained within the Site. As per the Erosion and Sediment Control Plan, the sediment fence required will be installed, maintained and remain in place until the finished elevations have been achieved, topsoil placed, and seed germinated.

2.5 GROUNDWATER

In support of the proposed permitted works, the Owner has retained a hydrogeological consultant to prepare a Groundwater Monitoring Program (GMP). Briefly, the GMP includes the development of baseline on-Site groundwater quality data, together with the routine GMP which includes regular sampling on on-Site groundwater utilizing and established monitoring well network to document and significant changes in groundwater quality.

The objective of the GMP is to monitor the quality of groundwater migrating off-Site, and to assess the impact (if any) of the proposed works on the quality of groundwater flowing off-Site from the fill area.

Golder Associates Ltd. has prepared a Hydrogeological Assessment, Baseline Groundwater Monitoring Event, and Water Balance Assessment to identify the status of the groundwater at the site and report on starting point data to support the GMP. As noted within the Assessment, baseline information has been collected on-site by way of four (4) groundwater monitoring wells that were installed around the perimeter of the Site, and surveyed to establish top-of-pipe elevations. Two additional monitoring wells will be installed within the overburden to capture potential variations in flow direction. Initial baseline groundwater monitoring was conducted in October 2019, which included the measurement of groundwater depth within each monitoring well. To establish baseline conditions, quarterly (seasonal) water levels will be collected prior to filling. Based on the existing calculated groundwater elevation at each monitoring well location, local groundwater flow across the Site was generally inferred to be in a south-easterly direction. This will be confirmed through additional monitoring.

Going forward, the water levels in all available monitoring wells on-Site will be monitored on a semi-annual basis to assess the groundwater flow direction across the Site. In addition, a data logger is proposed at one of the on-Site well locations to continually monitor fluctuations in the local water table. This work, as noted in the Groundwater Monitoring Program, will be

coordinated in conjunction with the works noted above, to be undertaken as soon as the Township Agreement is in place to accommodate this proposed scheduling.

The inferred groundwater flow direction will be used in determining which downgradient monitoring wells will be regularly sampled and analyzed in order to monitor the quality of groundwater. Should the results of the monitoring program suggest that the prevailing direction of groundwater flow across the Site is variable and/or experiences a significant change, the groundwater sampling program will be modified as needed to ensure that well locations downgradient of the filling area are being sampled. Additional details are provided in the GMP.

It is noted that groundwater flow in the area is generally determined by a regional hydraulic gradient and operation of the Orangeville municipal wells, and the restoration of the Site to grade locally is not expected to affect this regional hydraulic gradient. Hence, although the prevailing groundwater flow direction is not expected to be affected by the implementation of the Site Alteration & Fill Management Plan, assessment and tracking of this will be confirmed by the semi-annual groundwater monitoring program.

As filling progresses, the wells will be extended with additional lengths of nominal 50 mm diameter PVC riser piping so that the top of each well pipe remains above the base of the excavation. Licensed well technicians (as defined in Ontario Regulation 903), will be employed to complete this work. Top of pipe elevation data for the affected wells will be re-established accordingly as needed.

As previously discussed, four groundwater monitoring wells have previously been installed around the perimeter of the Site, two additional groundwater monitoring wells will be installed prior to construction, and baseline water quality data have been collected, with additional seasonal testing to be completed.

To provide a record of groundwater quality during the filling operations and monitor for the potential introduction of contaminants to groundwater, it is proposed that six (6) monitoring wells will be sampled on a semi-annual basis. Sampling will be undertaken to determine flow direction, presence of combustible gases, and water quality. Monitoring equipment will be installed in one (1) on-Site well to continually measure the water table. The Groundwater Monitoring Program will commence once the Fill Permit is issued and will conclude two (2) years following completion of on-Site fill operations and after receiving a letter of acknowledgement from the MECP on the filling of the Record of Site Condition. Any amendment to the monitoring program will be determined by the findings of the monitoring program.

In the event that groundwater samples exhibit results are not within the tolerances as reflected within the GMP, an action plan will be implemented in response. More specific details regarding triggers and action items are provided in the GMP.

2.5.1 Quality Assurance and Quality Control

A report providing a summary of the groundwater monitoring program will be prepared by the hydrogeological consultant and provided to the Township semi-annually. The annual report will include an assessment of the groundwater monitoring results, impact forecasts and trends

as currently outlined in the GMP, including inferences and recommendations. As required, the noted recommendations will be incorporated into a revision of the GMP and Site Alteration & Fill Management Plan.

2.6 WATER BALANCE

An existing and proposed conditions Water Balance Assessment has been completed by Golder (September 2021) to demonstrate comparison between the estimated pre development and post development water budget.

Under existing conditions (pre-pit scenario), the subject site infiltrates an estimated 123,000 m^3/year through the pervious surfaces, with a run off of 19,000 m^3/year.

In the proposed condition, additional fine sand loam cover is proposed over the development, which ultimately increases the infiltration and decreases the runoff over the proposed development. Under the proposed conditions with no mitigation measures, the proposed development infiltrates an estimated 83,200 m^3/year, which results in a runoff of 57,800 m^3/year.

Mitigation measures proposed within the subject site include a 3,300 m^2 infiltration gallery, located on the east side of the subject site. The infiltration gallery has been sized to provide 660 m^3 of infiltration volume. With the implementation of the proposed mitigation measure, the annual infiltration volume is estimated to be 142,900 m^3/year which results in a runoff of 6,700 m^3/year

In conclusion, with the addition of the native material such as fine sand loam and the infiltration gallery, there is not a negative impact to the groundwater recharge or infiltration rates on site. An analysis of fill material will be carried out for each load to ensure the characteristics of the fill will not reduce existing infiltration rates. The calculations prepared by Golder included importation of a wide variety of sands, silts, and clays to complete the water balance calculations.

2.7 WELLS

Per the Hydrogeological Assessment the site is located within the Orangeville-Amaranth wellhead protection area with the northern portion located within the 2-year time of travel area for three municipal wells while the southern portion is located within the 10-year time of travel area for one municipal well.

2.8 SEPTIC SYSTEMS

There are no current or proposed septic systems for this site.

2.9 BUILDINGS AND STRUCTURES

There are no current or proposed buildings for this site.

2.10 ARCHAEOLOGY

The Stage 1 Archaeological Assessment was conducted in 2019. The assessment was then reviewed and subsequent findings recognized by the Ministry of Culture, Tourism, and Sport (MTCS). As the proposed fill works are confined to the disturbed areas as identified in the assessment, no further assessments are required. If at any point archaeological resources are identified, works resulting in ground disturbance will be immediately suspended and the MTCS will be notified.

2.11 ADJACENT PROPERTIES

As per the Site Alteration & Fill Management Plan proposed works, site alterations will not occur within 5 metres of a neighbouring property. For adjacent property protection, the Erosion and Sediment Control Plan outlines sediment fencing to be constructed along the Site perimeter for dust control maintenance. In support of site closure, surface restoration including placement of topsoil and seed will occur up to the property limits to complete the restoration requirements as per this Site Alteration & Fill Management Plan.

2.12 FILL QUALITY CRITERIA

Understanding that placement of soils and the quality of soils imported can have an adverse effect on the existing conditions of the receiving site, the Owner and the Reviewing Qualified Person are to be aware of the parameters of the source material characterization and take this into consideration when reviewing material for potential import.

The source site and source soils must be assessed in accordance to Ontario Regulation 153/04, as amended under Part XV.1 of the Environmental Protection Act. All materials must comply with Table 2: Full Depth Generic Site Condition Standards, Agricultural, in a Potable Ground Water Condition, as contained within the Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act dated April 15, 2011. The Soil Standards for Agricultural from Table 2 will be the applicable criteria.

The most applicable soil quality comparative criteria for use during site alterations and filling are the Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, MECP, April 15, 2011. These are the Standards referenced in O. Reg. 153/04, as amended.

Although not specifically designed for use as imported fill soil assessment criteria for filling, they are the best source of soil quality criteria for use by a QP to evaluate a specific site alteration situation. The Standards were created to be conservative and to be generic for a variety of environmental conditions (i.e., potable or non-potable ground water), and Property Uses (Agricultural, Residential, Industrial, etc.). The Standards were developed based on using a risk-based approach as outlined in the MECP document Rationale for the Development of Soil and Ground Water Standards for use at Contaminated Sites in Ontario, dated April 15, 2011. In addition to the Generic Standards, site-specific standards can be derived through the Tier 2 and Tier 3 Risk Assessment approaches.

When conducting environmental site assessments in accordance with O. Reg. 153/04, as amended, the Generic Standards in Tables 2 through 9 contained within the Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, MECP, April, 15 2011 can be used based on Property Use and site-specific conditions to evaluate the environmental condition of a property. The QP can select the appropriate table of Standards based on such things as Property Use, potable or non-potable ground water, and proximity to a water body. The Generic Standards include both Full Depth and Stratified Standards. The Stratified Standards provide values for surface soil and sub-surface soil below 1.5m of final grade.

For any site alteration the post alteration environmental condition of the property when evaluated in accordance with O. Reg. 153/04 as part of an environmental site assessment (ESA) must meet the applicable Generic Standards or Site-Specific Standards developed from a risk assessment.

To ensure that the applicable standards can be achieved after a site alteration, the quality of imported fill must, as a minimum, meet the applicable Standards for the Site. For this site the Table 2 Standards for Agricultural has been selected.

The use of Generic Site Condition Standards, for Potable Ground Water Condition for Agricultural as the comparative criteria for imported fill soil is to be supported by the following rationale based on the concepts outlined in O. Reg. 153/04, and site-specific studies.

Although the Owner has not yet secured source sites, as this coordination is based on scheduling availability and is market-driven, specific source sites will be arranged closer to the timing of the Site Alteration Permit issuance.

A review of the site-specific conditions of the 513151 2nd Line property indicates the primary sensitive receptor for environmental impacts from soil would be groundwater as the site has few plants, animals, residents or surface water receptors. It is recognized that in the future these may be a factor.

A review of the drivers for the Table 2 parameters for below 1.5 m of surface indicates the majority of the sensitive receptors driving the criteria are not applicable to filling this gravel pit at depths below 1.5 m.

A review of the Table 1 and Table 2 criteria applicable to this site indicates no appreciable difference in the level of environmental protection and the long-term plan is to obtain a Record of Site Conditions for Agricultural.

The use of Table 2 Standards will not significantly change the proposed source sites or the materials expected to be imported.

It will offer some additional flexibility with regard to the natural variations in soil chemistry, the vaguery of the sampling method and the typical analytical reporting tolerances.

The use of Table 2 will not result in a significant change in the overall soil chemistry imported as there would be no change in the planned source sites.

These criteria will be reviewed annually with the results of the site monitoring to confirm the acceptability of the selected Table 2 standards and monitoring methodology.

2.13 FILL QUALITY EVALUATION AND ASSESSMENT

2.13.1 Overview of Strategy

This Site Alteration & Fill Management Plan (SA&FMP) includes tactics for environmental protection based on seven major components as shown on Figure 1, titled Fill Quality Control, Environmental Protection, Monitoring and Oversight. This document base prepared by the Township reflects multiple layers of control and protective works throughout the filling program. These layers are levels of oversight involved to ensure the Township, public and environment are protected throughout the proposed site alteration activities.
The process also includes compliance with the requirements of MECP, the primary regulatory authority with jurisdiction over the assessment and movement of fill materials. The process includes the following components:

a) The Owner as the overall operator of the Site;
b) Assessment of the Source Site(s) and signed reports by the professional firm working on behalf of the Source Site Owner;
c) Third Party Qualified Person (QP_{ESA}) review of Source Site documentation by a professional consulting firm retained by the Owner, who must approve the Source Site and dictate the quantity approved and any conditions;
d) The Owner staff inspection and sampling at the gate and tipping face as well as en route monitoring;
e) Third party professional firm retained by the Owner to conduct groundwater monitoring and reporting;
f) Financial Assurance posted and available to the Township for any issues of non-compliance or environmental impact;
g) Township and their professional Peer Review Consultant to audit and oversee all aspects of the program; and
h) Agencies with jurisdiction to provide oversight of specific areas of their mandate such as groundwater protection.

2.13.2 Source Site Assessment

All Source Sites will undergo an assessment to ensure only suitable material is approved to be transported to the Site.

This section outlines the review and assessment protocols, Ministry of Environment, Conservation, and Parks criteria, and documentation and reporting requirements for consideration of material to be accepted for filling at the Site. All fill material to be considered for import to the Site at 513151 2nd Line is to adhere to the following requirements:

i. Anyone wishing to ship material to the Site will be provided with a copy of the Source Site Acceptance Protocol.
ii. Anyone seeking to ship material for deposit at the Site must receive written approval from the Owner that the material proposed to be shipped has been accepted in accordance with the Protocol.

iii. Materials shipped must be in accordance with the Protocol and using the Bills of Lading specifically assigned to that source site.

2.13.3 Source Site Acceptance Protocol

An application to ship material for deposit at the Site shall include the following:

a) Name of the Owner and/or any site representative for the potential Source Site authorized to sign on behalf of the Owner any bill of lading and other documentation relating to shipments of Acceptable Fill from the Source Site to the Site (herein after referred to as the applicant).
b) One or more reports, prepared by a Qualified Person from the Source Site to include the following information:
   i. A description of the Source Site and its history, including the location, past and present uses of the land, and current activities. This should be in the form of a Phase One ESA in general compliance with O.Reg. 153/04 as amended and the minimum analytical parameters required in O. Reg. 406/19. The Phase One ESA must provide sufficient information for the Reviewing Qualified Person to evaluate the Source Site and determine, its suitability, and if a Phase Two ESA is required.
   ii. A description of the material to be shipped to the Site, including the processes involved in its generation. This includes details on where the material was received and why it is excess (i.e., is the soil from a basement excavation of nature, surface grading or a stockpile from previous site activities). The description should indicate general soil type (sand, silt, clay, rock etc.) and any inclusions of non-natural inert materials (concrete, clay pipe, brick etc.).
   iii. A record of the results of a comprehensive soil testing program for the Source Site, including a description of the sampling locations, sample collection procedures, and parameters analyzed. The rationale for the selection of the sampling locations and the parameters for testing must be included, based on the methodology outlined for a Phase Two ESA (O.Reg 153/04, as amended) and in accordance with the MOE Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario, December, 1996.
   iv. Soil must meet the requirements of Table 2: Full Depth Generic Site Condition Standards in a Potable Groundwater Condition, Agricultural or Other Property Use with the exception of EC and SAR.
      a. For soils with elevated levels of EC and SAR, which are above the Table 2 site condition, the sampling and analysis program will include leachate sampling.
   v. A statement from a Qualified Person that in his/her opinion the material satisfies the requirements of the Protocol and is suitable for placement at the Site.
   vi. The anticipated volume of material to be shipped.
   vii. An estimate of the period of time over which the material will be shipped.
   viii. Copies of the application, together with the related report of reports will be forwarded to the Owner and the Reviewing Qualified Person.

All reports and documents provided for review must be able to be relied upon by the Owner. If reference is made within the reports or documents specifying limitations that do not allow reliance by the Owner on the content, the applicable report of document must be accompanied by a Letter of Reliance. The Letter of Reliance must specify that the Owner may rely on the

content of the report to the same degree as the original client for when the report was prepared. Reports that cannot be relied on may be of limited value. The Reviewing Qualified Person will take such things into consideration under reviewing the suitability of the Source Site.

All reports and documents must not be dated older than six months. Documents older than six months must be accompanied by a Letter of Reliance indicating the content remains valid with no material change to the report content and limitations.

The application will be reviewed by the Reviewing Qualified Person to determine whether the material proposed for shipment is suitable for acceptance. The Reviewing Qualified Person will consider the results of the documentation including the sampling program, including but not limited to, whether the sampling locations and number of samples are representative of the material proposed to be shipped, whether the test results include the full range of parameters of potential concern relating to the Source Site and whether a suitable Quality Assurance/Quality Control (QA/QC) program was implemented.

The Reviewing Qualified Person will advise the Owner in writing whether or not the material proposed to be shipped is suitable for acceptance and provide any terms or conditions of acceptance. The Owner or the Reviewing Qualified Person, if so authorized by the Owner, will communicate the approval in writing, together with any terms or conditions of approval to the Applicant.

Once written approval has been provided by the Reviewing Qualified Person, The Owner will proceed to issue Bills of Lading to the Applicant. The Bills of Lading will allow tracking of volumes and identify potential issues such as use of the Bills of Lading beyond the expected time period.

Copies of all reports, documents and communications related to the assessment and approval of all Source Sites will be retained for the period of the Agreement. The documentation will be made available to the Township for review at any time.

2.13.4 Audit of Source Materials

Prior to import of materials, the Reviewing Qualified Person will have provided approval on specific materials to be imported to the Site. In addition, the Township and/or its qualified person consultant is eligible to visit the Site and/or request any documentation for review to ensure compliance.

2.13.5 Audit of Materials Placed on Site

For the purpose of a quality control audit, samples of materials received at the Site will be collected by or on behalf of the Owner under the supervision of the Reviewing Qualified Person. Soil materials are to be sampled at a rate of not less than every 10,000 cubic metres of imported fill, a record will be maintained of the sampling procedure and the rational connected herewith:

> Samples collected for audit purposes will be submitted to an accredited laboratory for analysis and will be analyzed for inorganic parameters together with any other parameters that are deemed necessary by the Reviewing Qualified Person, given the

information contained in the reports for the Source Site location relating to the materials being shipped to the Site. Materials are to be collected for sampling on every receiving day that exceeds 2,000 cubic metres per day to a total of not less than four (4) samples per week where the weekly total exceeds 10,000 m^3 Where the weekly total is less than 10,000 m^3 one sample shall be collected, samples should be collected in a manner so the collections are spaced apart in time and by number of loads delivered to be representative of the material imported.

2.13.6 Source Site Sampling Frequency

Although each site alteration may have different source sites and operational controls, the requirements for sampling the imported soil will follow the current requirements and protocols established by the MECP and in particular O.Reg. 153/04, as amended.

The document "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario", MECP December 1996, is the technical guidance document to be used for assessment and sampling protocols. Sampling frequency for imported material will be in accordance with the approach with the Guidance document and O.Reg. 153/04, as amended which also references this document.

The actual numbers of samples and the parameters analyzed have been developed in accordance with the MOE Guidance document and regulations as a minimum, as well as good engineering and scientific practices. The selection of the number of samples begins after review of the source site Phase I ESA by the QP_{ESA} as outlined on Figure 1.

In some cases, the Phase I ESA of the Source Site may conclude the potential source site does not require a Phase II ESA and could also conclude that a Record of Site Condition (RSC) could be filed based on the Phase I ESA alone. In this case there is no necessity for source site sampling however, the QP_{ESA} would elect to conduct some sampling to determine the natural soil chemistry and characteristics prior to confirming the appropriateness of the source site soil chemistry in comparison to the Table 2 soil criteria for the Site.

In other cases, the Phase I ESA of the Source Site would recommend a Phase II ESA following the completion of the Phase II ESA some remedial action could be required to meet the property use standards for the source site. The QP_{ESA} would responsible for reviewing the Phase I ESA, Phase II ESA and other documents related to the source site. Based on the report review the QP_{ESA} would approve or reject the source site. The QP_{ESA} could also require an additional sampling program at the completion of the potential source site assessment. The QP_{ESA} would determine the volume of soil that is approved for shipment from the source site to the Site and any conditions or restrictions that may be necessary to ensure that only the approved material is shipped. This could include inspection of the source site by the QP_{ESA} during shipment or other control measures as outlined in other sections of this Plan and shown on Figure 1.

The required source site sampling frequency will be based on the requirements of O.Reg. 153/04, as amended and the MECP Guidance document, as well as any additional due diligence sampling as determined by the QP_{ESA}.

2.13.7 In Transit Sampling

Random sampling of material leaving the source site and in transit to the receiving site will be determined by the QP_{ESA} and the Owner's auditing procedures. Transit monitoring will focus on truck traffic control, manifests and random inspections with actual load sampling conducted should there be a concern identified from the general auditing. The protocol will be to reject any load of suspicious origin or without appropriate documentation.

2.13.8 At the Gate Sampling

Sampling at the gate is an additional layer of auditing and due diligence following the source site assessment and transit management protocols. Sampling at the gate is not designed to be the primary soil monitoring mechanism. The evaluation of the soil quality is much more effective in-situ at the source site where the Phase I ESA and other documents can provide a more reliable assessment including source site sampling and evaluation than any detailed sampling program conducted at the gate. The site assessment process to evaluate soil quality is based on the established and MECP regulated process of Phase I ESA, Phase II ESA and remedial action (if necessary) followed by Phase II ESA confirmation program. This is often completed by the filing of a Record of Site Condition (RSC), as required by regulation or by the requirements of other parties (municipalities, banks, etc.). In many cases the filing of RSC is not required however the environmental assessment process leading up to that point is the same.

The QP_{ESA} will evaluate the potential source site soil quality based on this established process with the addition of comparing the findings to the soil quality criteria. The QP_{ESA} will determine if additional source site sampling is required to ensure the source site soil is suitable for the Site. Sampling at the gate is for auditing and due diligence purposes and not designed to be a primary soil screening point. In no situation would soil from an unapproved source site be allowed to access the Site.

The due diligence soil sampling audit at the gate would be designed to collect sufficient samples reflective of an audit. The determination of the number of samples would be based on the number of source sites, number of loads and the identification of any irregularities in the transit protocol.

The audit sampling frequency for properly controlled operation bringing material from appropriately assessed source sites with no significant issues would be once per every receiving day that exceeds 1,200 m^3 conducted together with other inspection and evaluation protocols. The selection of audit sampling parameters would be based on the advice of the QP_{ESA} and include typical contaminant suites such as metals, in organics, petroleum hydrocarbons and VOCs.

2.13.9 In-situ Audit Sampling

Audit sampling will be conducted at a frequency and for parameters selected by the QP_{ESA} of the emplaced fill at the Site to supplement receiving site soil assessment protocols. This will provide another layer at due diligence to the soil assessment protocols. Since the samples are collected in-situ they can be used at a later date to support a Phase II ESA (which would include additional sampling) when conducted as part of the process to confirm site conditions to

support the filing of a Record of Site Condition. In-situ audit sampling will be conducted once per week, sample location(s) recorded, and consist of a surficial inspection of the main filling area to document conditions and the collection of at least one worst case soil sample from beneath the surface (to reduce the potential for the loss of volatiles) for every operational day (i.e., where the site received in excess of 1,200 m^3 of fill). The QP_{ESA} will determine the parameters for analysis based on the source sites and the result of the surficial inspection. Samples will be collected as widely as possible over the area of the filling.

2.13.10 Additional Sampling

Should the QP_{ESA} have any concerns with the fill delivered based on the sampling at the gate, the observations of workers and the fill face or the results of the sampling, then additional sampling will be conducted. The QP_{ESA} will develop a sampling program to target any identified issue with regard to fill quality.

2.13.11 Reviewing Qualified Person Responsibilities

The Owner is required to have a Reviewing Qualified Person oversee the site alteration and to ensure compliance with the Site Alteration & Fill Management Plan, as required under the Agreement between the Owner and Township. The Reviewing Qualified Person is entitled to coordinate site investigations or material testing, at the cost of the Owner, to satisfy them self that factors related to soil review, testing, placement strategies, record keeping and reporting are in conformity with this Site Alteration & Fill Management Plan. The Township can rely on the expertise of the Reviewing Qualified Person and their confirmation that processes and procedures related to Source Site soil acceptance review, placed material sampling and testing and reporting procedures are followed, and/or recommendations for improvements and/or Site Alteration & Fill Management Plan modifications.

The Qualified Person (QP_{ESA} as defined in O.Reg. 153/04 as amended of the Ontario Environmental Protection Act) has the following responsibilities with regards to this Site Alteration & Fill Management Plan:

a) Reviewing documentation from the Source Site to provide preliminary screening of the material to be transported to the receiving Site;
b) Reviewing SA&FMP protocol for the duration of the fill activities and recommending changes, if necessary;
c) The QP_{ESA} or his/her staff will train the Owner staff in the screening protocols and audit the fill Site to ensure that protocols are followed;
d) Will recommend scope of work and/or course of action should materials not meet the required criteria for compliance;
e) Will review documentation provided by the Owner staff on load tracking and screening;
f) Will provide monthly review and comment of the documentation and testing; and
g) Contribute to the semi-annual reporting of fill activities with respect to the environmental quality of fill.

The Township will have full access to records and documents and the Owner will provide these in a timely fashion. the Owner will provide access to the Site for the Township or its peer review consultant for any inspection, sampling and surveying of the Site at any time. For any

site visits, the Township or its peer review consultant will need to abide the health and safety protocols as outlined in Section 4.24.

The Reviewing Qualified Person is to review the logs and reports recorded and collected by the Owner related to the fill import operations and provide monthly comment and recommendations (where applicable) for the Owner to undertake. Although the documentation will initially be prepared monthly by the Owner, in line with the Township reporting frequency, this reporting scheduling will be reviewed annually and the recommendations for any adjustments in the reporting program will be included in the annual report for consideration by the Director. No changes to the minimum reporting frequency will be made without the Approval of the Director that may be implemented may be done so pending approval by the Township.

2.14 FILL TRACKING

The Quality Control, Environmental Protection and Oversight Strategy for the Site is the Reviewing Qualified Person appraising the Source Site documentation in relation to the material quality acceptance parameters, reviewing the specific volume and time period for this source import, and to assess any conditions or restrictions of the source material.

Further Site protection involves a receiving soil assessment involving reviews of the approved Source Site material at the gate, at the fill location, during grading and by the Owner representative. Through any of these procedures, should any Source Site loads be rejected or fail to meet the acceptance criteria outlined, the Owner will return to the first step to review the material and Phase I ESA (or Phase II ESA, if required) for consideration or confirmation of rejection.

2.14.1 Overview

This section outlines the location tracking, protocols for receipt and on-Site review, and documentation of Acceptable Fill. This section also includes procedures and documentation required for unacceptable materials.

The Site Alteration & Fill Management Plan is based on fill being brought to the Site and emplaced. With the exception of materials brought to the Site and subsequently found to be unsuitable due to a failure of the fill assessment and quality control protocol, all materials brought to the Site are to remain. It is not the purpose of the Site Alteration & Fill Management Plan that Site be used as a transfer station or staging area for materials. The only materials that are approved to be brought to the Site are those that are to remain on the Site. Only the volume of topsoil needed for final restorations of the Site can be stockpiled on Site.

Materials not meeting the soil quality criteria for the Site will be rejected. It will be the responsibility of the Source Site for the immediate removal of the offending materials.

2.14.2 Location Tracking

On a daily basis, the Owner will identify a location on the Site where filling activities will occur, as per the Environmental Noise Report Section 6.0 Noise Abatement Measures prepared by Jade Acoustics Inc. The location of loads from each daily source emplaced will be tracked

and recorded on a daily basis within a data base and will be retained for the entire period of the Agreement. Records will be retained and made available to Township on request.

Once the gatekeeper approves the load for acceptance at the Site, he/she will collect and date the Bill of Lading, and direct the driver to a specific dumping location at the Site. The assigned fill location will be noted on the Owner tracking sheet in relation to each Bill of Lading received.

2.14.3 On-Site Fill Acceptance Protocol

A Bill of Lading will be presented before any truck(s) can enter the Site. Each load to the Site will be accompanied by a completed Bill of Lading indicating:

a) Name of the generator (ie. Source Site owner);
b) Generating Location;
c) Name of the hauling company;
d) License plate number and truck identifier (if one exists); and
e) Date and time of the shipment; and
f) Consistency of the Bill of Lading to expected period of Source Site transport.

Each Bill of Lading will be signed by an authorized representative of the Source Site. The gatekeeper will cross-reference the information on the Bill of Lading against the master list which will include truck ticket numbers issued by project.

Untested and/or undocumented loads or loads with no Bill of Lading will not be accepted under any circumstances.

The gatekeeper, who is trained for such purposes, will complete a visual and olfactory inspection of each load prior to permitting access to the Site. Loads containing unacceptable material or exhibiting evidence of possible chemical impact (e.g., unusual odours or staining) will not be permitted access to the Site. Any situation of material being rejected by the gatekeeper from a particular Source Site will give rise to an investigation of the incident. The Township will to be notified through Incident Report issue and follow up actions taken. The report will be retained by the Owner at the Site, or at some other secure place.

2.14.4 Documentation of Accepted Fill

The documentation prepared as noted below will supports the Reviewing Qualified Person having the responsibility to review and comment on the material being accepted at or rejected from the Site. The documentation noted in Section below will support the reviews audit and review process noted in above.

2.14.5 Daily Documentation

A daily summary log will be maintained for loads received at the Site, including rejected loads. The log entry will include:

a) Date;
b) Daily total number of trucks entering the property;
c) Daily total number of trucks accepted;
d) Daily total number of trucks rejected (and reasons for rejection); and

e) For each Generating Location:
   i. Identification number for each Bill of Lading received on that date; and
   ii. Material placement location.

All applications and related reports, Bill of Lading, logs of material accepted at the Site, records of material approved for acceptance at the Site, etc. will be retained by the Owner and will be made available to the Township as requested.

2.14.6 Discovery of Unacceptable Materials

Should any unacceptable materials (i.e. material other than Acceptable Fill) be discovered at the Site (through the audit program or during, or after, dumping of a load), the Owner shall do or cause to be done the following procedure:

a) All unacceptable material will be located by way of the site log and locational tracking grid and recovered and stockpiled for further testing and/or removal from the Site.
b) The QP_{ESA} will review the documentation generated by the Owner and the results of the sampled imported fill on a monthly basis and generate a summary letter. Any adjustments to protocol based on real-time observations of these results will be suggested at that time.
c) If deleterious materials have escaped the initial screening protocol and have been revealed by chemical testing, the QP_{ESA} will provide recommendations on potential course(s) of action to rectify the situation.
d) The material source will be suspended from continuing material import until confirmed that the suspect material has either been rejected or meets the Acceptable Fill criteria.
e) Should fill be accepted, follow up reporting to be provided to the Township with material characterization documentation to support acceptance.
f) A record of the action taken in an Incident Report, per Template 4, together with any applicable documentation (e.g. testing and analysis and/or shipment off-Site) with respect to the unacceptable material will be kept in the site log (at the Site, or at some other secure place).
g) A copy of the documentation shall be provided promptly to the Township through the Incident Report form.

2.14.7 Documentation and Resolution of Rejected Fill

Should the discovery of unacceptable material not meet the Acceptable Fill criteria and be deemed rejected, the Owner shall undertake the following:

a) Conduct perimeter testing vicinity of load to confirm compliance.
b) If the quantity of deleterious or unacceptable materials is minimal it can be hand sorted and disposed of off-Site. If the quantity is excessive, the entire load is to be isolated and removed from Site.
c) The Owner to ensure the rejected material is removed to either its originating site or an approved disposal site. Where the material is exported to an approved disposal site, the Owner is to secure documentation from the receiving site to identify the off-site disposal company and location, and confirmation that the off-site disposal facility has reviewed and accepted the material.

d) A record of the action taken in an Incident Report, per Template 4, together with any applicable documentation (e.g. testing and analysis and/or shipment off-site) with respect to the unacceptable material will be kept in the site log (at the Site, or at some other secure place).
e) A copy of the documentation shall be provided promptly to the Township through the Incident Report form.

2.14.8 Rejected Load Response

Immediately upon the rejection of a load a decision must be made based upon the following:

a) The rejected load is or may be an indication that there is an issue with the material from a particular Source Site. The Source Site will be immediately suspended from shipping to the Site.
   As shown on Figure 1 the suspension of a Source Site requires a complete re-assessment of the Source Site. The Source Site will be immediately informed not to send further trucks and trucks in transit will be turned back.
b) The rejected load is determined not to be indicative of a pervasive issue with the Source Site, but an individual load issue. This could be a result of a loading error at the Source Site, a destination error on the part of the shipper or another cause specific to that particular load such as residential materials (asphalt from a previous load) residing in the truck box. In this case the Source Site is not suspended, but an Incident Report is prepared and action taken to deal with the rejected load and prevent a reoccurrence.

2.15 TRAFFIC TO AND FROM SITE

When importing or exporting fill from the site, provide a transportation plan in accordance with the requirements of the Township and Region to manage the traffic and access to and from the source site and the receiving site.

In order to manage traffic entering and exiting the Site, a traffic study was undertaken and report prepared titled Traffic Operations Assessment by a qualified traffic consultant (BA Consulting Group Ltd.).

2.15.1 Access to the Site and Projected Truck Volume

Access to the Site is proposed to be from 2nd Line via County Road 109. An exemption to the current Township traffic volume restrictions will be required to allow for the recommended 60-120 trucks per operating day. Additionally, an exemption to the current Township half load restriction will be required to allow for full load transit year-round.

2.15.2 Off-Site Signage

Given the anticipated traffic volumes, as required, permanent truck turning signs (per OTM Book 7) will be posted along 2nd Line for northbound and southbound traffic to identify truck traffic entering and exiting the Site. Information signage will be posted at the Site entrance noting the municipal address.

2.16 MITIGATION OF MUD AND DUST ON ROADS

In order to ensure the Site is properly maintained and to minimize disturbance to the public, the following mud tracking and dust control program will be applied. The following controls will be implemented on-Site and reviewed through the Erosion and Sediment Control inspections to ensure they are functioning and effective.

2.16.1 Inspection Protocol, Documentation and Reporting

The referenced on-Site controls will be inspected by the Owner weekly in conjunction with the Dust Control Program. The engineering consultant staff ESC reporting will be circulated to the Township and the Owner noting site conditions and recommendations for application of best management practices to be applied to ensure the Site is maintained. Should there be conditions on-Site causing excessive mud tracking onto 2nd Line, or other significant erosion or sediment concerns identified, truck stoppage may result until these issues are sufficiently addressed.

2.16.2 Sweeper and Flusher Truck

The mud and dust controls related to truck traffic will be maintained with a sweeper/flusher truck dedicated to maintaining the Site and access into the Site. The Owner will review the Site throughout the day and documents the usage of their sweeper/flusher truck to ensure the Site is maintained and works recorded.

2.16.3 Timing for Action, Resolution and Response Protocol

Responses to mud and dust control concerns directly reported and received by the Owner are to be responded to and/or addressed within twenty-four (24) hours. If the Township of Amaranth receives a Complaint or concern through the Township website, or submission of the Township complaint form, the Owner will provide a response to the Municipal office and persons who filed complaint within the twenty-four (24) hour timeframe on the action being taken to resolve the complaint or concern. For any issues confirmed as requiring immediate attention, these will be addressed directly, or in the timeliest manner possible.

2.17 DUST CONTROL

Dust Control is critical to ensure property and the environment are protected and maintained. As noted in the MECP document titled Management of Excess Soil – A Guide for Best Management Practices, implementing erosion and sediment controls at the Site ensures industry best management practices applied to prevent impacts to drainage and sediment discharge to nearby road and water systems, and to ensure materials remain where placed. The following outlines how erosion and sediment will be controlled throughout various stages of the filling operation, including inspection and reporting protocols, timelines for action and resolution of ESC matters.

2.18 RETAINING WALLS

There are no current or proposed buildings for this site.

2.19 SUB-SURFACE DRAINAGE

An infiltration gallery is proposed at the central east limit of the proposed development and will provide infiltration for a catchment area, 39.91 ha. Runoff from the proposed development will enter the infiltration gallery via surface infiltration and a proposed catchbasin located at the central east limit of the proposed development. A 50 m 200 mm diameter PVC header pipe is proposed to be placed within the granular layer of the infiltration gallery to effectively distribute water in order to maximize infiltration. The header pipe runs along the width of the infiltration gallery. Ten 60 m 200 mm diameter PVC perforated distribution pipes extend laterally from the header pipe and span the length of the proposed infiltration gallery. In the event that the infiltration gallery becomes overwhelmed, runoff will continue to conveyed east towards the neighbouring property. The proposed infiltration gallery will provide 660 m^3 of infiltration volume, equating to approximately 10.7 mm of rainfall over the proposed site area. Therefore, the infiltration capacity provided by the proposed infiltration gallery will be sufficient to accommodate drainage from the proposed development and will improve upon the existing infiltration volume without negatively impacting subsurface hydrogeology.

2.20 PROTECTION OF TREES

There are no trees within the proposed project area.

2.21 FINAL SURFACE COVER AND GRADES

Upon approved fill acceptance from the Source Site and subsequent specified quality control checks at the receiving site, the soils fill will then be placed. The program for fill placement incorporates a quality system that allows the fill placement to be tracked, both by source and geographic area within the receiving site.

The placement of fill will generally follow a layered strata approach with the lower elevations of the Site being filled first. Filling of subsequent topographically higher layers will then be completed. The soils filling operation will be influenced by factors such as daily anticipated volumes, market conditions, and weather influences. Surface water and erosional occurrences will also dictate which areas will be filled at any given time.

Once the final grading is confirmed by topographical survey, the fill will be capped with a minimum native material such as fine sand loam for agricultural use. At no time will the amount of fill (including topsoil) exceed the elevations specified to meet the approved final contours.

2.22 PUBLIC AND ADJACENT LAND OWNERS

Through the proposed site alteration works, the following are anticipated to be potential impacts of concern to the public and adjacent land owners: mud tracking, dust, traffic, air quality and noise. These potential impacts and the strategy to prevent and mitigate these are identified within the Mud Tracking and Dust sections, and addressed through supporting documentation such as the Traffic Analysis Report.

Although the public complaint procedures are outlined, the Township and the Owner can also be contacted for general inquires and information on the Site works.

2.23 REPORTING

The Site Alteration & Fill Management Plan requires the Owner to maintain logs and report on the Site's activities. The benefit of the reporting process is that it provides evidence to the Township the details of the on-going operations and enables work to be stopped if there are non-compliance issues. The reporting process follows the Fill Quality Control, Environmental Protection, Monitoring and Oversight program. The permit can be revoked in the case of a major compliance breach. This approach puts the onus on the Owner to maintain compliance with the Site Alteration & Fill Management Plan and provides the Township with options to facilitate compliance.

The reporting requirements may be adjusted over time but initially it is intended that there will be monthly, semi-annual, and annual reporting.

2.23.1 Monthly Reporting

Reviews and reporting of testing results, complaints and other time sensitive issues along with corrective measures will be undertaken not less than monthly. Unless otherwise specified, this frequent reporting will be available to the Township in a summary package issued semi-annually, accompanied by estimated progress of fill imported per the operational period reported.

The monthly reporting will include details such as date, number of trucks per day, hours of operation, placement location(s) identified for each fill source imported, details of any incidents, compliance issues and actions taken, and a summary from the Reviewing Qualified Person on material sampling and analysis of imported materials. These logs will be available to the Township's environmental peer review consultant for examination and to ensure any compliance issues are identified and dealt with immediately. The monthly reporting will be prepared by the Owner and will include any recommendations issued by the Reviewing Qualified Person, consideration and scheduling to address the noted recommendations. Template 1, titled Monthly Report, will be used for this reporting.

2.23.2 Semi-Annual Reporting

The mid-year reporting package will enable the Owner to provide a general update on the operations, include the Monthly Report documentation for the previous semi-annual monitoring period duration, and resolution particulars on any matters that arose during the operational reporting. This work and reporting will be done to demonstrate resolution to any operational issues is resolved on a periodic basis, and to confirm Agreement compliance is maintained.

Semi-annual reporting will be undertaken and provided to the Township to identify an overview of the status of the semi-annual groundwater sampling and monitoring result, and any relevant issues for the Township review and reference. This semi-annual report will reference progress from the previous six (6) months on fill related or operational incidents that arose and actions on ESC reports and any Incident Report forms. Included in this package will be collective groundwater sampling and monitoring results, and summary and recommendations from the Reviewing Qualified Person on all works being reported and consideration and scheduling to address the noted recommendations.

The semi-annual groundwater monitoring will be conducted following the completion of the fill operation until the Record of Site Condition is acknowledged. The Record of Site Condition will be submitted within two (2) years of completing the fill operation.

2.23.3 Annual Reporting

The purpose of the Annual reporting is to provide a general overview of the status of the operation, a collaboration of the operational and semi-annual report detailing, groundwater monitoring results, endorsement and/or recommendations by the Reviewing Qualified Person, surveyed fill import volumes and fee payment details.

The Owner will provide an annual report to the Township to provide a general overview of the status of the operations, a collaboration of the continual and quarterly report detailing, groundwater monitoring results, surveyed fill import volumes and fee payment details, and endorsement and/or recommendations by the Reviewing Qualified Person. The recommendations would include any formal changes to the Site Alteration & Fill Management Plan to address any compliance issues, complaints or other issues identified during the year. A summary of the year's activities including number of truckloads of fill, volume of fill imported, Site area(s) filled, complaints received and corrective actions taken, a summary from the Reviewing Qualified Person on material sampling and analysis of imported materials, traffic and signage review, mud and dust control, erosion and sediment control, environmental monitoring, compliance assessment, and other details are required to be included. The Site Alteration Permit will not be renewed until all items have been addressed and the requirements of the Permit fulfilled.

2.23.4 Submission Timing

The Monthly and Semi-annual reporting will be submitted within forty-five (45) days of the duration period ending. The results of the Annual Report will be briefly reviewed and comments provided for any work that may be required.

Any request to reduce the reporting requirements will be assessed by the Township based on the success of the operation and compliance with the Agreement and Site Alteration & Fill Management Plan.

2.24 SITE CONTROL

For site alterations where there is the potential for illegal dumping and unauthorized access, provide a protocol for site security and access control.

2.24.1 Health, Safety and Security

The Owner as the Site operator is responsible for Site health, safety, and security. The Owner has enacted policies in which describe employee procedures and which visitors to the Site must abide by.

2.24.2 Township Staff Inspections

As a party to the Agreement for the Site Alteration Permit, the Township (or their designated professional acting on behalf of the Township) has the right to visit the Site to conduct sampling, inspection, surveying or any other type of investigative or information gathering activities it chooses to undertake. The Township has the right to undertake these reviews of the Site during operating hours on any receiving day, or as coordinated with the Owner for access on non-receiving days or after hours.

2.24.3 Site Visit Procedures

Prior to the Township and any other visitors entering the Site, the Owner is to be informed of such intention to enter the Site. All visitors planning to enter the Site are expected to identify themselves and inform the Owner's field staff of their desire to access the Site. Township staff or its designate will be afforded the right to visit the Site in accordance with the Owner's health and safety policy and procedures.

All Owner staff and visitors to the Site are to understand and comply with the requirements of the Owner's health and safety policy and procedures. A copy of the most current Owner's health and safety policy and procedures document can be sourced through the Owner.

2.24.4 Accident and Injury Prevention

As per the Owner's health and safety policy and procedures and as per the Occupational Health & Safety Act and Regulations for Construction Projects, all Owner staff and visitors to the Site are to follow the guidelines and requirements set in both of these documents, and apply industry best practices to prevent accidents and injuries.

2.24.5 Accident and Injury Incident Action and Reporting Procedures

Should any incidents of accident or injury occur, the primary concern will involve ensuring any persons or property is secure and protected. The protocols to follow for acting on an accident/injury are to be followed as per the Owner's health and safety policy and procedures and as per the Occupational Health & Safety Act and Regulations for Construction Projects.

2.25 NOISE IMPACTS

As per the Environmental Noise Report, the Site operations-specific noise sources predominantly include tri-axle traffic, tailgate impulses, and dozer operations. In order to mitigate impacts caused by operations-derived noise, it is proposed that tailgate impulses and dump box impulses will be strictly prohibited and filling operations will be conducted in such a way that the western-most boundary will be brought to ultimate grade initially with filling works proceeding to the northeast and completed in the southeast.

As noted in the Environmental Noise Report, to ensure that the noise is kept to a minimum the contractor is to follow the staging identified, one bulldozer is to be operating at the active dump site and twelve trucks (arriving and departing) per hour along the on-site truck route. The fill operation would be completed in a west to east direction such that there is screen provided to the west by the recent fill throughout the course of the operations. Fill to be completed to final design height before filling in an easterly direction. When the number of

trucks arriving exceeds six in any one-hour period the bulldozer operations are to be limited to the south portion of the initial filling area.

Once the west area is filled to ultimate grades, the north area and south area would be filled. When the number of trucks arriving exceeds eight in any one-hour period the bulldozer operations are to be limited to the east portion of the subsequent filling area.

2.26 PUBLIC COMPLAINTS AND INCIDENTS

It is anticipated that the most significant issues to be raised in connection with the proposed filling operations will be in relation to traffic control, the potential dust and mud tracking onto 2nd Line.

As required, the Owner plans to coordinate and attend a Public Information Session to be scheduled at the Township office open to the public, Township Council and other interested parties to have an opportunity to provide feedback on how the proposed rehabilitation filling operations may affect the public. Controls related to mitigating these concerns are identified in the operational procedures under Sections Traffic to and from Site and Proposed Truck Volume and Mitigation of Mud and Dust on Roads. Based on experiences with other fill sites, we anticipate concerns related to Source Site materials testing and monitoring and groundwater monitoring to be of concern. Details pertaining to the diligent review and control of these operations are covered under the section, Groundwater Monitoring Program and Source Site Assessment.

In order to ensure the Township and public concerns are addressed through the duration of the Site Alteration process, any and all formal complaints and incidents will be addressed within 24 hours, or within a timely manner. All formal complaints and resolutions will be included in the monthly and annual reporting.

Respectfully Submitted:

SCS Consulting Group Ltd.

Jennifer Hazelton, C.Tech.
jhazelton@scsconsultinggroup.com

Julia Risi, C.E.T., CAN-CISEC
jlrisi@scsconsultinggroup.com

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