



REQUEST FOR PROPOSAL ("RFP") NO. PS09032

MACHINE BASED GLOBAL POSITIONING SYSTEM

Proposals will be received in the City of Vancouver's ("City's") Purchasing Services Office, 3rd Floor, Suite #320, East Tower, 555 West 12th Avenue, Vancouver, British Columbia, Canada, V5Z 3X7 prior to the Closing Time: 3:00:00 P.M. Vancouver Time (as defined in Note 2 below), on Tuesday, June 2, 2009 and registered at 11:00 A.M on Wednesday, June 3, 2009.

NOTES:

1. Proposals are to be in sealed envelopes or packages marked with the Proponent's Name, the RFP Title and Number.
2. Closing Time and Vancouver Time will be conclusively deemed to be the time shown on the clock used by the City's Purchasing Services Office for this purpose.
3. The City's Purchasing Services Office is open on Business Days 8:30 A.M. to 4:30 P.M. Vancouver Time and closed Saturdays, Sundays, and holidays.
4. DO NOT SUBMIT BY FAX.

All queries related to this RFP shall be submitted
in writing to the attention of:

Eamonn Savage
Contracting Specialist

FAX: 604.873-7057 E-MAIL: purchasing@vancouver.ca

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
TABLE OF CONTENTS**

PART A - INTRODUCTION

Pages 4 - 11

- 1.0 Introduction
- 2.0 General Scope of the Contract
- 3.0 Key Dates
- 4.0 Background and Purpose
- 5.0 Objective
- 6.0 Insurance
- 7.0 Requirements

PART B - INSTRUCTIONS TO PROPONENTS

Pages 12 - 18

- 1.0 Administrative Requirements
- 2.0 Conduct of RFP - Inquiries and Clarifications
- 3.0 Contract Requirements
- 4.0 Pricing
- 5.0 Consortium Proposals
- 6.0 Submission of Proposal
- 7.0 Format of Proposal
- 8.0 Bid and Performance Security
- 9.0 Conflict of Interest/Solicitation
- 10.0 Opening of Proposals
- 11.0 Evaluation of Proposals
- 12.0 Deviation from Requirements or Conditions
- 13.0 Proposal Approval
- 14.0 Quantities and Estimates of Requirements
- 15.0 Brand Names - Intentionally Omitted
- 16.0 Alternates and/or Variations to Specifications
- 17.0 Environmental Responsibility
- 18.0 Freedom of Information and Protection of Privacy Act
- 19.0 Confidentiality
- 20.0 Advertising
- 21.0 Special Conditions
- 22.0 Non-Resident Withholding Tax
- 23.0 Legal Terms and Conditions

PART C - SPECIAL CONDITIONS

Pages 19 - 27

- 1.0 Additional Evaluation Criteria
- 2.0 Pricing
- 3.0 Insurance Requirements
- 4.0 Health and Safety

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
TABLE OF CONTENTS**

PART D - PROPOSAL FORM

Pages PF1 - PF11

- 1.0 Required Documents
- 2.0 Compliance
- 3.0 Required Proposal Documents
- 4.0 Proponent's Declaration and Acknowledgment

Proposal Form - Attachment A - Legal Terms and Conditions

SCHEDULES

Pages 1 - 49

- Schedule A - Requirements
- Schedule B - Pricing
- Schedule C - Site Tests and Other Tests
- Schedule D - Training
- Schedule E - Sub Contractors
- Schedule F - City Contributions
- Schedule G - Support Services and Service Levels
- Schedule H - Key Personnel
- Schedule I - Work Plan Time Estimates
- Schedule J - Documentation
- Schedule K - Deviations and Variations
- Schedule L - Deliverables
- Schedule M - Preliminary Site Specific Safety and Health Plan

APPENDIX 1 - FORM OF AGREEMENT (45)

APPENDIX 2 - CERTIFICATE OF EXISTING INSURANCE (1)

APPENDIX 3 - INFORMATION MEETING ATTENDANCE FORM (1)

APPENDIX 4 - VANCOUVER LANDFILL SITE SAFETY ORIENTATION (9)

APPENDIX 5 - VANCOUVER LANDFILL HAZARD IDENTIFICATION LIST (2)

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART A - INTRODUCTION**

1.0 Introduction

- 1.1 This Request for Proposal (“RFP”) identifies a business opportunity for the successful proponent(s) (“Proponent(s)”) to supply and install a Global Positioning System (“GPS”) customized for use on and with City vehicles (the “Machine Based Global Positioning System”, “MBGPS” or “System”) at the City’s landfill located at 5400 72nd Street, Delta, British Columbia (the “Landfill”), as set out in Schedule A Requirements.
- 1.2 Over the past two years, GPS technology has improved operations at the Landfill. However, due to limitations of the current hand-held GPS unit, full scale GPS implementation on machines (vehicles) is deemed to be the necessary next step.

2.0 General Scope of the Contract

- 2.1 The City is requesting proposals for a “turn-key” MBGPS solution for which the successful Proponent will be responsible for the provision of all hardware, software and applications, system design, implementation, installation, training and maintenance.
- 2.2 A Proponent who chooses to respond to the City’s requirements will be required to demonstrate how integration and/or interface of systems will be accomplished. The Proponent’s response should clearly outline roles and responsibilities for integration and/or interface of systems into a complete solution, the methodology that will be employed, the nature of the integration and/or interface and technical requirements in order to achieve it.
- 2.3 Proponents are to respond to all mandatory requirements, must demonstrate how they can meet all requirements contained in the RFP, and may submit complete proposals solely or in a consortium. Those Proponents submitting consortium proposals must clearly identify and indicate the roles and responsibilities of each of the consortium members and must clearly identify which member(s) will be the “Contractor” under the contract (the “Contract”) anticipated to be signed in substantially the form attached as **Form of Agreement [Appendix 1]**, and therefore act as the entity that will assume as “Prime Contractor” the full legal liability to the City under the Contract for the performance of all consortium members’ obligations. As with Proponents who submit proposals individually, each member of a consortium will need to provide individual responses with respect to **Schedule H [Key Personnel]**.

3.0 Key Dates

- 3.1 A Proponents’ Information Meeting will be held as follows:

Date: May 14th, 2009
Time: 9:30am
Location: Delta Town & Country Inn
6005 Highway 17 (at Highway 99)
Delta, BC V4K 5B8

- 3.2 The Proponents’ Information Meeting will include an overview of the RFP Requirements, the documentation and process, and will also enable Proponents to present questions and possibly receive a response in a communal forum. **Please advise us by returning the Information Meeting Attendance Form [Appendix 3] via**

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART A - INTRODUCTION**

facsimile or e-mail as to whether or not you will be attending the Information Meeting.

- 3.3 The City may attempt to give verbal responses to questions during the Information Meeting but Proponents are advised that they may rely only on the formal written response/summary to be issued by the City following the Information Meeting.
- 3.4 Proponents are encouraged to read this document, and submit any questions pertaining to this RFP in advance of the Proponents' Information Meeting by e-mail, quoting RFP #PS09032" in the subject line, to: purchasing@vancouver.ca.
- 3.5 Key dates to be noted are:

Event	Date
Deadline for submission of the Information Meeting Response Form [Appendix 3]:	May 8, 2009
Proponents' Information Meeting	May 14, 2009
Deadline for inquiries and clarifications	May 26, 2009
RFP Closing	Tuesday June 2, 2009

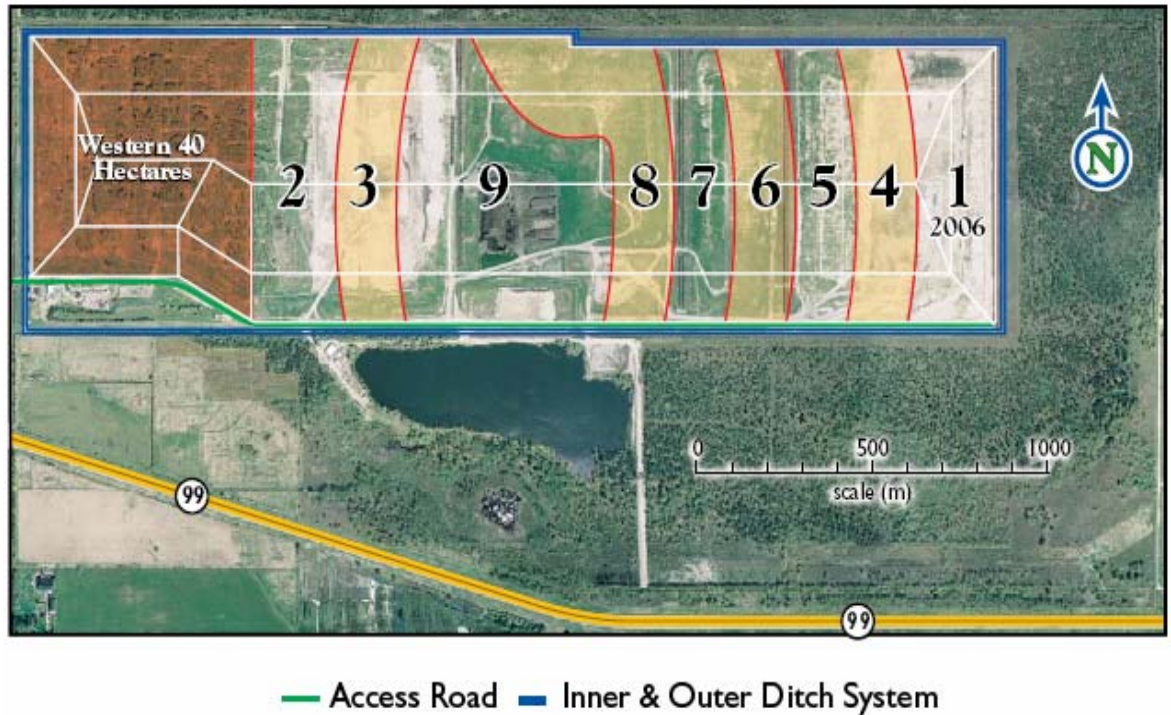
4.0 Background and Purpose

4.1 Background

- (a) The Landfill is owned and operated by the City. The Landfill serves almost 1,000,000 residents of Vancouver, Delta, Richmond, White Rock, University Endowment Lands and parts of Surrey.
- (b) The Landfill is authorized to receive 750,000 tonnes of municipal solid waste annually. Most of the waste disposed of at the Landfill is first delivered to either the Vancouver South Transfer Station (the "VSTS") or one of the transfer stations located in the regional district of "Metro Vancouver", formerly known as Greater Vancouver Regional District. The total site area of the Landfill is 635 hectares. The area where the MBGPS solution will be implemented will include the Landfill footprint (the area filled with garbage) and the surrounding area, which will not exceed 450 hectares (the "Site"). The footprint will be filled with garbage to a maximum height of 39 metres over the next approximately 40 years.
- (c) In January 2000, the City's "Design & Operations Plan" was completed which outlines the day-to-day operations at the Landfill needed to achieve the final elevation of 39 meters above sea level. The Plan details final design contours which are divided into nine distinct phases as illustrated in Figure 1.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART A - INTRODUCTION

Figure 1. Vancouver Landfill Phase Locations



- (d) Refuse has been accepted at the Vancouver Landfill since 1966. Disposal has proceeded from west to east since 1966, with refuse cells typically 300 meters by 800 meters in area. Currently, Phase 1 is undergoing final closure and Phase 2 is being filled. Refuse is placed in lifts up to approximately 5 meters high. Intermediate cover is placed on top of each lift to act as a fire blanket. Roads are built as needed to provide access for vehicles. Landfill gas horizontal wells and associated gas collection works are installed within each Phase during filling.

4.2 GPS Use at the Vancouver Landfill

- (a) In March 2005, a consultant was retained to assist with the implementation of the City's "GPS Mapping Program". The goals of this GPS Mapping Program were to utilize GPS technology to achieve design grades on Phase 1 and to test the viability of a machine-mounted GPS system at the Landfill. One (1) Trimble 5800 GPS receiver was purchased to conduct the trial. The Metro Vancouver RTK network has been used with the Trimble 5800 since the GPS Mapping Program inception and is described in detail in the next section.
- (b) The first portion of the GPS Mapping Program involved steepening the final slopes in Phase 1 (the first completed phase of the Landfill) to maximize airspace. New fill plans were developed by a consultant and a GPS unit was mounted on a bulldozer designated to spread cover material to achieve final grades. Mounting the GPS unit on this machine allowed for real time corrections to slopes as work progressed to avoid regrading afterward. However, this GPS unit was not designed to be used as a mounted system. Several problems were encountered including poor screen visibility, short

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART A - INTRODUCTION**

battery life, electrical and network connection difficulties and mounting brackets shearing off due to the rugged environment. As a result, the GPS unit was mainly used on the ground to collect field survey data to check filling against design.

- (c) The second portion of the GPS Mapping Program utilized the GPS unit to correct overfilling in and around currently active areas. Overfilled areas were identified by having a consultant collect survey data, compare with final fill plans and make adjustments for field implementation. However, these corrections were expensive and reactive in nature. In addition, once the final height is achieved, fill plans can no longer be adjusted due to legal restrictions on the Landfill's final height. Corrections are expensive and time-consuming, potentially involving excavation, hauling and replacement of overfilled material.
- (d) Landfill staff continue to use the Trimble 5800 with the Metro Vancouver RTK network (see below) on a daily basis, to ensure adherence to design fill plans; create digital records of new infrastructure including gas collection works, and track potentially harmful materials.

4.3 Metro Vancouver Real Time GPS Service

(a) Overview

The Government of British Columbia, in cooperation with federal and municipal agencies, and industry, has created the British Columbia Active Control System - (the "BCACS^m"). The BCACS^m is a network comprised of permanent, continuously operating GPS base stations which are linked via computer and telecommunication networks. These base stations provide a real time GPS service by supplying data which allow users to correct the coordinates obtained with their single GPS receivers to achieve accurate local positions, in real-time kinematic ("RTK") mode.

The BCACS^m has been implemented in several areas throughout the Province including the Capital Regional District as well as locally in the regional district of Metro Vancouver.

(b) Service Details - Metro Vancouver

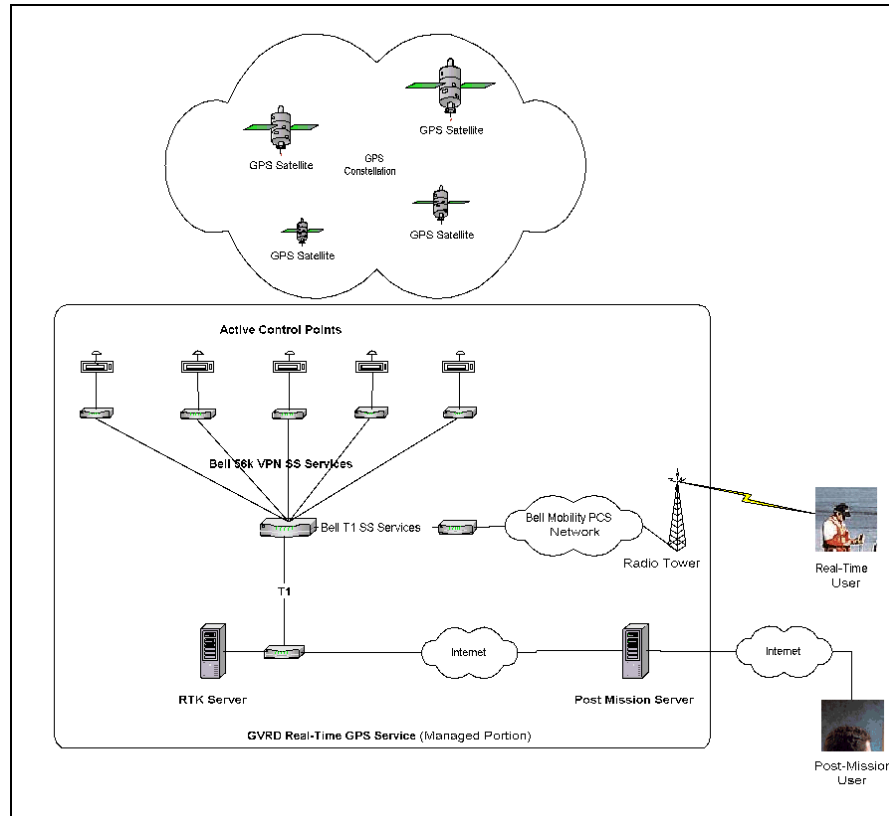
The real-time GPS service for Metro Vancouver ("MV Real Time GPS Service") was developed as a partnership between the Crown Registry and Geographic Base, Metro Vancouver, and the member municipalities comprising Metro Vancouver. The MV Real-Time GPS Service enables suitably equipped field operators to determine instantaneous centimetres-level positions using survey grade dual frequency GPS receivers by means of correction messages coming from a RTK server computer.

To establish the MV Real Time GPS Service, Metro Vancouver installed a network of five permanent GPS reference stations - or Active Control Points ("ACP") - and has continuously tracked data since the fall of 2002.

The ACP network continuously tracks GPS satellite signals. The ACP stations send signals via dedicated data lines to a central network server, which

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART A - INTRODUCTION**

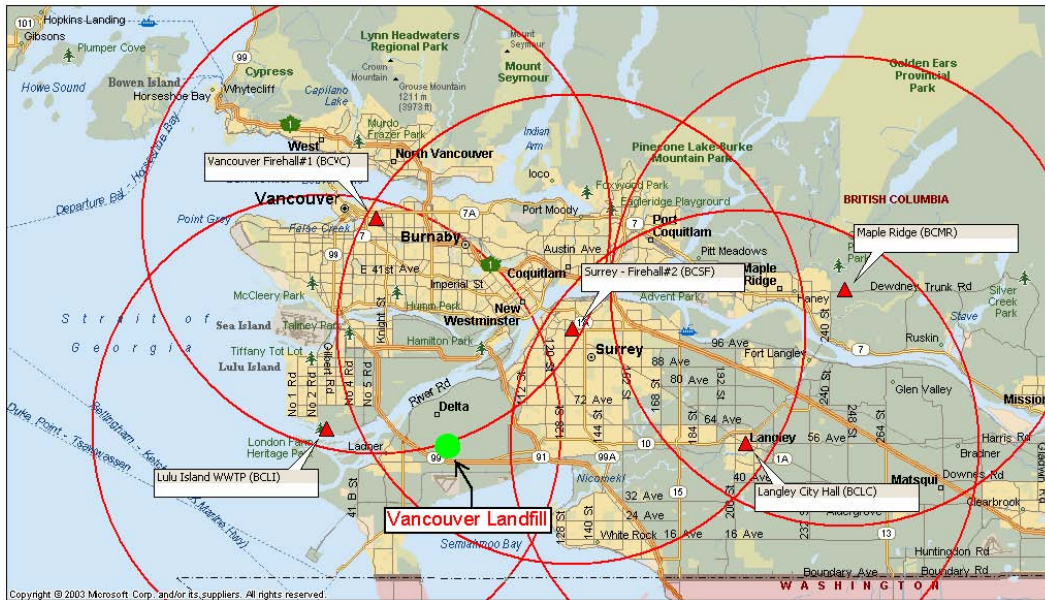
manages and distributes the GPS correction data to subscribers in real time. Subscribers receive data on their own personal communication system devices via third-generation (3G) wireless technology using private or open Internet based infrastructure.



The MV Real Time GPS Services are limited to a range of 20km from an ACP site. The Vancouver Landfill falls within the 20km range of three ACP locations, namely:

- i) Vancouver Firehall #1 (19.0 km)
- ii) Lulu Island WWTP (9.5 km)
- iii) Surrey Firehall #2 (15.5 km)

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART A - INTRODUCTION**



The wireless technology used for data transmission is a key component of the MV Real-Time GPS Service. Recently the MV Real-Time GPS Service has been made accessible over the Internet which allows users to choose their own wireless network providers according to their coverage.

Links

- http://ilmbwww.gov.bc.ca/bmgs/products/geospatial/bcacsm_gvrd.htm
- http://ilmbwww.gov.bc.ca/bmgs/gsr/gsr_faqs.htm

(c) Site Infrastructure

Currently, the Landfill employs approximately forty (40) staff. On a daily basis, approximately 15-20 staff are directly involved with filling operations. At the Site there are seven (7) machines comprised of two (2) compactors and five (5) bulldozers as follows:

Machine	Status	Make	Use
D2490 D8T Bulldozer	New (2008)	Caterpillar	Pushing demolition at W40
C2402 D8T Bulldozer	New (2008)	Caterpillar	MSW pushing at the active face
D2451 D8T Bulldozer	To be replaced (mid 2009)	Caterpillar	MSW pushing at the active face
A2489 190 hp (D6) Bulldozer	To be replaced (mid 2009)	Komatsu	Dirt cover at the active face
C2452 190 hp (D6) Bulldozer	To be replaced (mid 2009)	Komatsu	Road building & Special Projects
C2454 826 Compactor	To be replaced (mid 2009) with 836	Caterpillar	MSW compaction at the active face
A5474 836 Compactor	To be replaced (mid 2009)	Caterpillar	MSW compaction at the active face

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART A - INTRODUCTION**

The intent of this RFP is to outfit all the above listed machines or their replacements with machine-based GPS units.

4.4 Purpose

- (a) Over the past two (2) years, GPS technology has improved operations at the Landfill. However, due to limitations of the current hand-held GPS unit, full scale implementation of a GPS system on machines is deemed to be the necessary next step. It is the goal of the City to acquire a machine-based GPS system to allow Landfill staff to:
- i) ensure maximum airspace utilization;
 - ii) achieve desired grade/slope;
 - iii) conserve cover soil;
 - iv) minimize use of road building materials;
 - v) maximize compaction of refuse while improving machine efficiency;
 - vi) measure settlement more accurately for use in landfill life projections;
 - vii) track potentially harmful waste burials;
 - viii) create digital records of new and old infrastructure;
 - ix) eliminate the need for constant use of survey stakes and crews;

5.0 Objective

- 5.1 The purpose of this RFP is to select a Proponent(s) with the capability and experience to efficiently and cost-effectively supply the RFP Requirements as set out in Schedule A - Requirements. The Requirements stated in this RFP are as envisioned by the City at the time of writing, but may change or be refined in the course of the evaluation and award process.

6.0 Insurance

- 6.1 Proponents are requested to review and ensure that they fully understand and have the ability to meet the City's insurance requirements as outlined in Part C [Special Conditions].

7.0 Requirements

- 7.1 In support of the RFP objectives outlined in this Part A Section 5.0 [Objective], the City has identified specific requirements (the "Requirements") within Schedule A Requirements and Appendix 1 [Form of Agreement] to which the Proponent should offer its solution(s) in the manner and format described in Part B [Instructions to Proponents] by utilizing Proposal Form [Part D] and the various Schedules included within this RFP (collectively a "Proposal"). The City reserves the right to consider any of the components as optional.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART A - INTRODUCTION

- 7.2 Proponents bidding jointly with others or proposing more than one (1) solution should include additional details on how the solutions and Proponents are integrated, and such Proponents should note that the City requires a prime contractor to be responsible for the overall performance of the Requirements and to be responsible for all content and stated claims of functionality, performance, deliverables and services of all named parties in the Proposal.
- 7.3 It is not the intent of these requirements to arbitrarily eliminate any Proponents. However, the City will evaluate the Proposals for what it considers to be the best overall value for its investment.
- 7.4 The specifications set out in the Schedules to **Proposal Form [Part D]** (along with the Proponent's response to same) will be expressly incorporated into and attached to the Contract to be signed by the successful Proponent

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART B - INSTRUCTIONS TO PROPONENTS**

NOTE: The definitions set out in **Section 1 [Interpretation] of Appendix 1 [Form of Agreement]** of the RFP apply throughout this RFP, including this Part of this RFP, except (a) for **Attachment A [Legal Terms and Conditions] to Proposal Form [Part D]** and (b) where otherwise expressly stipulated or the context otherwise requires.

1.0 Administrative Requirements

- 1.1 It is the sole responsibility of the Proponent to check the City's website at <http://www.vancouver.ca/bid/bidopp/openbid.htm> regularly for amendments, addenda, and questions and answers related to this RFP.
- 1.2 The Proponent is to submit its Proposal in accordance with instructions identified on the cover page and as provided within this **Part B**.

2.0 Conduct of RFP - Inquiries and Clarifications

- 2.1 The City's Manager - Supply Management will have conduct of this RFP, and all communications are to be directed only to the contact person named on the cover page.
- 2.2 It is the responsibility of the Proponent to thoroughly examine these documents and satisfy itself as to the full requirements of this RFP. Inquiries are to be in written form only, faxed to 604-873-7057 or e-mailed to purchasing@vancouver.ca to the attention of the contact person shown on the cover page before the deadline date. If required, an addendum will be posted on the City's website and as noted in **Part B, Section 1.1** above it is the sole responsibility of the Proponent to check the City's website regularly for amendments, addenda, and questions and answers related to this RFP.

3.0 Contract Requirements

- 3.1 The successful Proponent will be required to enter into a Contract substantially in the form set out in **Appendix 1 [Form of Agreement]**, which may be modified to incorporate the particular hardware descriptions and software licenses, modules, services, pricing and functionality/operating metrics of the successful Proponent's proposal. Proponents are to carefully review the Form of Agreement and ensure that they can comply with all of its terms therein, in particular, but not limited to, matters with respect to insurance, indemnity, source code and security requirements.
- 3.2 Where the head office of the successful Proponent(s) is located within the City of Vancouver and/or where the successful Proponent(s) is required to perform any Work at a site located within the City of Vancouver, the successful Proponent(s) is required to have a valid City of Vancouver business license prior to Contract execution.
- 3.3 If any of the terms set out in the RFP (including the Form of Agreement) are unacceptable to the Proponent, the Proponent should identify such terms and provide suggested alternatives in **Schedule K [Deviations and Variations]**. While the City is not obligated to accept any alternative, all suggested alternatives will be considered during the evaluation process, but may or may not be acceptable to the City.

4.0 Pricing

- 4.1 Prices quoted are to be exclusive of GST and PST.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART B - INSTRUCTIONS TO PROPONENTS**

- 4.2 Prices are to be quoted F.O.B. destination with all freight, unloading at destination, import duties, brokerage, royalties, handling, overhead, profit and all other costs included.
- 4.3 Prices are to be quoted in Canadian currency.

5.0 Consortium Proposals

- 5.1 The City will consider a proposal from two (2) or more persons or companies having no formal corporate links who wish to form a joint venture or consortium solely for the purpose of submitting a proposal in response to this RFP, provided that:
 - (a) they disclose the names of all members of the joint venture or consortium; and
 - (b) all members sign the Proposal Form and submit all information expressly required of them.
- 5.2 One (1) person or company is to be identified as the Prime Contractor and “Key Contact Person” on the **Proposal Form [Part D]**, and be prepared to represent the consortium to the City. The Key Contact Person will serve as the primary contact and take overall responsibility for all communications with the City during the Proposal submission, evaluation, and any negotiation process. Each member of a consortium will need to provide individual responses with respect to **Schedule H [Key Personnel]**.
- 5.3 Consortium Proposals should include proposed contract language describing each consortium member’s roles and responsibilities and the proposed legal contract structure, including, as described in **Part B, [Section 5.2]** above, a clear identification of which entity will be named in the Form of Agreement as the “Contractor” (that is, the “Prime Contractor” and “Key Contact Person”) and, therefore, act as the entity which will assume the full legal liability to the City under the Contract for the performance of all consortium members’ obligations.
- 5.4 The City reserves the right to accept the consortium as proposed or choose to contract with individual consortium members separately. Each component of the consortium proposal should be priced out individually.

6.0 Submission of Proposal

- 6.1 Proponents are to submit four (4) copies of their Proposal, prior to the Closing Time and to the location shown on the cover page of this RFP. Proposals are to be in a sealed envelope or package marked with the Proponent’s name and the RFP title and number. All copies of Proposals are to be in three ring binders with each section tabbed and including all accompanying schedules, appendices or addenda. In addition, Proponents can also submit a CD-ROM copy of their proposal; however this is not a requirement of submission.
- 6.2 Only the English language may be used in responding to this RFP.
- 6.3 Proposals received after the Closing Time or in locations other than the address indicated, may or may not be accepted, and may or may not be returned. The City may or may not elect to extend the Closing Time.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART B - INSTRUCTIONS TO PROPONENTS**

- 6.4 Amendments to a Proposal are to be submitted in writing in a sealed envelope or package, marked with the Proponent's name and the RFP title and number.
- 6.5 Proposals may be withdrawn at any time before or after the Closing Time and are to be withdrawn by written notice delivered to the office of the Purchasing Department, at the location shown on the cover page of this RFP, and signed by the authorized signatory for the Proponent.
- 6.6 All costs associated with the preparation and submission of its Proposal, including any costs incurred by the Proponent after the Closing Time, will be borne solely by the Proponent.

7.0 Format of Proposal

- 7.1 Unnecessarily elaborate Proposals, beyond that sufficient to present a complete and effective response, are not required and unless specifically requested, the inclusion of corporate brochures and narratives are discouraged.
- 7.2 Proponents are to complete all forms included in this RFP attaching any additional appendices that may be required. Proposals are to be arranged as follows:

Title Page: The title page will show the RFP title and number, Closing Time and Date, Proponent name, address, telephone number and the name and title of the contact person.

Table of Contents: Page numbers are to be indicated.

Executive Summary: A short summary of the key features of the Proposal demonstrating the Proponent's understanding of the scope of the Requirements.

Proposal Form: The Proponent is to complete **Proposal Form [Part D]** and **Attachment A [Legal Terms and Conditions]** included in this RFP in accordance with the instructions of this **Part B**.

Schedules: The Proponent is to complete and provide the information within the respective Schedules included in this RFP. If additional space is required to respond to the requirements as outlined, then additional pages can be attached.

8.0 Bid and Performance Security

- 8.1 No Bid Security is required, since no irrevocable legally binding offer is required in this RFP.
- 8.2 The performance security required will consist of insurance, payment by milestones and a holdback, and acceptance testing procedures, as further detailed in the **Form of Agreement [Appendix 1]** and the Schedules.

9.0 Conflict of Interest/Solicitation

- 9.1 Proponents are to ensure that any and all conflicts or potential conflicts and any and all collusion, or appearance of collusion is fully and properly disclosed in **Section 8.0 [Declaration—No Conflict of Interest / No Collusion]** of **Attachment A [Legal Terms**

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART B - INSTRUCTIONS TO PROPONENTS**

and Conditions] to Proposal Form [Part D]. Other solicitation and conflict of interest provisions apply; see Section 9.0 [Other Conflict of Interest/Solicitation Terms] and Section 10.0 [No Promotion] of Attachment A [Legal Terms and Conditions] to Proposal Form [Part D].

10.0 Opening of Proposals

10.1 The City reserves the right to open all Proposals in a manner and at the time and place determined by the City. Dissemination of Proposal information will be as follows:

- (a) upon opening of the Proposals, the names of each Proponent will be publicly announced, and
- (b) upon completion of Proposal evaluation, the salient features of each Proposal and the recommended Proposal will be summarized and publicly reported on to the City's Council.

11.0 Evaluation of Proposals

11.1 Proposals will be evaluated on the basis of the overall best value to the City based on quality, service, price and any other relevant RFP criteria including, but not limited to:

- (a) the Proponent's ability to meet the Requirements;
- (b) the Proponent's ability to deliver the Requirements when and where required;
- (c) the financial offer including but not limited to prices, operating and maintenance costs, support, warranty, and any life cycle considerations;
- (d) the Proponent's business and technical reputation and capabilities; experience and where applicable, the experience of its personnel; financial stability; track record; and references of current and former customers;
- (e) the solution's quality, configuration, age and condition;
- (f) environmental responsibility demonstrated by the Proponent;
- (g) quality of submission; and
- (h) any other criteria set out in the RFP or otherwise reasonably considered relevant.

11.2 Proponents may be asked to provide additional information or details for clarification, which may include the Proponent, and any or all sub-contractors of the Proponent ("Sub-Contractors"), attending interviews, making a presentation, supplying samples, performing demonstrations, and/or furnishing additional technical data.

11.3 Samples of items, when required, should be submitted within the time specified and must be supplied at no expense to the City. If not destroyed in testing, they will be returned at the Proponent's request and expense.

11.4 Prior to approval of a Proposal, the City must be satisfied as to the Proponent's financial stability. The Proponent(s) may be asked to provide annual audited financial

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART B - INSTRUCTIONS TO PROPONENTS**

reports or a set of audited financial statements prepared by an accountant in accordance with generally accepted accounting principles and covering the Proponent's last two (2) fiscal years.

- 11.5 Preference may be given to Proposals offering environmentally beneficial products or services, to the extent reasonably applicable.
- 11.6 The City may elect to short list Proponents in stages as deemed necessary. In addition to the evaluation described above, one or more of the short-listed Proponents may be requested as part of a further evaluation to provide, at no charge or fee:
- (a) an on-site live demonstration of the short-listed Proponent's Machine Based Global Positioning Systems which are installed at the Proponent's customers' sites, with preference being given for sites located in British Columbia, Alberta or the Yukon; and/or
 - (b) a demonstration of the functionality and/or performance of the Proponent's Machine Based Global Positioning System at the City Site, using a minimum configuration of (i) GPS units installed on at least one bulldozer and on at least one compactor at the Site, and (ii) base station equipment at the Site sufficient to demonstrate terrain specifications configuration functionality and communication capabilities with the GPS units installed on the two vehicles.

12.0 Deviation From Requirements or Conditions

- 12.1 Any deviation from the Requirements or the conditions specified in this RFP should be clearly stated in the Proponent's Proposal within **Schedule K [Deviations and Variations]**. The City will be the sole judge as to what constitutes an acceptable deviation. If no deviations are indicated in the Proponent's Proposal, the City will assume that the Proponent is proposing full compliance with the Requirements and conditions of this RFP.

13.0 Proposal Approval

- 13.1 Proposal approval is contingent on completion of the evaluation process set out in **Part B [Section 11]**, funds being approved, and the successful Proponent's submission being approved by City Council. Only then may the successful Proponent(s) and the City proceed to settle, draft and sign the necessary legal agreement.
- 13.2 The City will notify the successful Proponent(s) in writing that its Proposal has been approved in principle and invite the Proponent(s) to proceed to sign the Form of Agreement [Appendix 1].
- 13.3 The City is not under any obligation to approve any Proposal and may elect to terminate this RFP at any time.

14.0 Quantities and Estimates of Requirements

- 14.1 All stated quantities are the City's best estimates of its requirements and should not be relied on. Proponents are to assume that actual quantities may vary by up to 20% of those stated.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART B - INSTRUCTIONS TO PROPONENTS

15.0 Brand Names - Intentionally Omitted

16.0 Alternates or Variations to Specifications

16.1 Proponents are to clearly indicate any variances from the City's Requirements and other specifications, no matter how slight. The attachment of descriptive literature from which variations may be gleaned will not be considered as a sufficient statement of variations.

16.2 If, in addition to proposing goods or services which meet the Requirements, the Proponent wishes to offer an alternative, the alternative solution is to be submitted separately as an appendix within the Proposal.

17.0 Environmental Responsibility

17.1 The City is committed to preserving the environment. Proponents are to provide environmentally sensitive products or services wherever possible. Where there is a requirement that the Contractor supplies materials, and where such materials may cause adverse effects, the Proponent is to indicate the nature of the hazard in its Proposal.

17.2 The Proponent is to advise the City of any known alternatives or substitutes for such materials that would mitigate the effects of any adverse conditions on the environment.

18.0 Freedom of Information and Protection of Privacy Act

18.1 Proponents should note that the City of Vancouver is subject to the *Freedom of Information and Protection of Privacy Act* (British Columbia).

19.0 Confidentiality

19.1 Proponents should note that, upon submitting the **Proposal Form [Part D]**, they will be legally bound to certain confidentiality obligations not to disclose any City information without the City's prior written consent.

19.2 Pursuant to **Section 7.1 of the Proposal Form [Part D] - Attachment A [Legal Terms and Conditions]** this RFP, and upon submission any Proposal, is the property of the City. Except for the purpose of submitting a Proposal, copies of the RFP may not be made or distributed without the prior written approval of the City's Manager, Supply Management. The foregoing does not entitle the City to ownership of any pre-existing intellectual property rights of a Proponent that are embedded in any Proposal.

20.0 Advertising

20.1 Nothing herein, nor the approval of any Proposal or the signing of a Contract, permits a Proponent to advertise its relationship with the City without the City's prior written authorization.

21.0 Special Conditions

21.1 Proponents should note that, if the Special Conditions of this RFP (if any) conflict with **Part A [Introduction]** and/or **Part B [Instructions to Proponents]** of this RFP, **Part C**

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART B - INSTRUCTIONS TO PROPONENTS

[Special Conditions] are intended to, and shall, govern over Parts A [Introduction] and B [Instructions to Proponents].

22.0 Non-Resident Withholding Tax

22.1 Proponents should note that the Income Tax Act (Canada) requires that payments to non-residents for any services performed in Canada are subject to a Non-resident Withholding Tax of a specified percentage (depending on residency of the Contractor). Exemption from this withholding tax is available in some circumstances, but the non-resident must apply directly to the Canada Revenue Agency (CRA) at least 30 days before commencing the service.

23.0 Legal Terms and Conditions

23.1 No part of Part A [Introduction], this Part B [Instructions to Proponents] or Part C [Special Conditions], will be legally binding on the City or on the Proponent. All legally binding terms and conditions contemplated by this RFP are contained solely in the Proposal Form [Part D], including without limitation, Attachment A [Legal Terms and Conditions].

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART C - SPECIAL CONDITIONS

1.0 Additional Evaluation Criteria

1.1 In addition to the evaluation criteria set out in Section 11.0 [Evaluation of Proposals] of Part B [Instructions to Proponents] of this RFP, the following criteria, which are not in any order of importance, will be taken into consideration where applicable during the City's evaluation of the Proposal:

(a) General

- (i) ease of use including availability and quality of graphical user interfaces, menus and shortcut commands and including ease of management, administration and maintenance;
- (ii) system performance and response time;
- (iii) expandability and scalability of the system and the ability of the Proponent to provide personnel and other resources to assist with future expansions;
- (iv) implementation plan and schedule, including the ability to meet project timelines;
- (v) training plan, both initial and ongoing, including training requirements for users, administrators and technicians;
- (vi) skills and experience of the Proponent and the resources assigned to the project, including, but not limited to:
 - (a) proven expertise and experience with the proposed MBGPS solution in projects of similar size and nature to the City of Vancouver,
 - (b) successful installations of the proposed solution, and
 - (c) qualifications;
- (vii) duration of support of previous versions once new versions are released;
- (viii) quality and completeness of documentation (e.g. operation and system manuals, training materials);
- (ix) quality of Proposal including ability to respond in the required format;
- (x) implementers and integrator's familiarity with proposed software and hardware solutions and experience with similar implementation projects;
- (xi) maintenance, service and support factors, including:
 - (a) ongoing maintenance and support services provided,

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART C - SPECIAL CONDITIONS**

- (b) service response times (proposed service levels),
- (c) dedicated company project manager and technical representative,
- (d) manufacturer support of the Contractor and the City, and
- (e) minimal disruption to staff,
- (xii) compliance with all City insurance requirements;
- (b) Technical**
 - (i) integration with existing data devices,
 - (ii) availability of spare capacity,
 - (iii) system availability,
 - (iv) security,
 - (v) redundancy,
 - (vi) networking capabilities,
 - (vii) compliance with industry standards, and
 - (viii) interoperability with standards-based (non-proprietary) products,
- (c) Financial**
 - (i) total cost of ownership,
 - (ii) initial costs (capital investment and operating costs),
 - (iii) reduction in operating costs,
 - (iv) move/add/change costs,
 - (v) warranty coverage,
 - (vi) ongoing maintenance/upgrade/licensing costs, and
 - (vii) the cost to add applications at a later date;
- (d) Value Added Services offered by the Proponent.**

2.0 Pricing

- 2.1 Proponents are advised to refer to **Schedule B [Pricing]** and the pricing provisions of **Appendix 1 [Form of Agreement]** with respect to pricing matters.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART C - SPECIAL CONDITIONS**

- 2.2 Progress payments will be paid based on successful completion of key project deliverables and/or milestones in accordance with the following terms of payment:
- (a) the City will hold back 10% of each payment pending successful delivery and testing of the entire system and the final payment, including the holdback amounts, will be made after all pre-agreed performance measures are met to the satisfaction of the City; or
 - (b) as an alternative to the above, Proponents may propose to post an irrevocable demand letter of credit in form acceptable to the City as security for performance to the satisfaction of the City, in lieu of the 10% holdback amount.

3.0 Insurance Requirements

- 3.1 The Proponent is advised to refer to the **Form of Agreement [Appendix 1]**, for the insurance requirements pertaining to this RFP should the Proponent be selected as the successful Proponent.
- 3.2 Proponents are to submit with their Proposals a Certificate of Existing Insurance in the form set out in the attached **Certificate of Existing Insurance [Appendix 2]** as evidence of their existing insurance coverage. **Appendix 2** may be amended where appropriate to add the types of insurance currently carried by the Proponent which are not explicitly referenced on the Certificate.
- 3.3 The City prefers Proponents who carry, in their ordinary course of their business,
- (a) commercial general liability insurance of five million dollars \$5,000,000.00, and
 - (b) technology professional services errors and omissions coverage of five million dollars \$5,000,000.
- 3.4 The Proponent is to submit with its Proposal a letter from its insurer or insurance broker confirming that they have been advised of the City's insurance requirements under the **Form of Agreement [Appendix 1]** attached to this RFP and that, should the City enter into a Contract with that Proponent, the Proponent would qualify for the type of insurance required by the **Form of Agreement [Appendix 1]**.
- 3.5 A key part of the evaluation of the Proposals will be the adequacy of the **Certificate of Existing Insurance** and the letter(s) submitted pursuant to **Section 3.4** above.

4.0 Health and Safety

- 4.1 The Contractor will be required to comply with the City's Safety and Health Plan while on the Site as set out in **Schedule M [Safety and Health Plan]**.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - PROPOSAL FORM

PART D—PROPOSAL FORM

Proponent's Name: _____
(“Proponent”)

Address: _____

Telephone: _____ Fax: _____

Key Contact Person: _____

E-Mail: _____ Incorporation Date: _____

Attach additional pages immediately behind this page for Sub-Contractors, if applicable.

To the City of Vancouver Supply Management Department,

The Proponent, having carefully examined and read the RFP, now submits the following Proposal:

1.0 Required Documents

In addition to the documents set out in Part D, Section 3.1, Proponents must submit the following documents:

Document	Required	Submitted
Certificate of Existing Insurance [Appendix 2]	Yes	
Letters of Ability to Comply with Form of Agreement Insurance Requirements (see Part C [Special Conditions], Section 3.0)	Yes	
Pictures of (1) GPS repeaters, (2) Bulldozer GPS hardware components, (3) Compactor GPS hardware components, (4) Landfill office GPS communication station hardware components,	Yes	

To be Initialled at Proposal Opening:

Manager, Supply Management or designate

Witness

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - PROPOSAL FORM**

2.0 Compliance

2.1 By initialling each item, the Proponent acknowledges it has read and understands the Requirements, has submitted the required addenda, has identified deviations or alternatives, and has provided an explanation of where it does not comply with the Requirements. If additional space is required, details of deviations and/or suggested alternatives should be listed in Schedule K [Deviations and Variations].

Section Title	Understand, Will Comply	Does Not Comply	Variations, Alternatives or Explanation for Non-Compliance
<u>Part B</u> Instructions to Proponents			
<u>Part C</u> Special Conditions			
<u>Part D</u> Proposal Form			
<u>Part D-Attachment A</u> Legal Terms and Conditions			

3.0 Required Proposal Documents

3.1 By initialling each item, the Proponent confirms it has completed and enclosed the Proposal Form and the required Schedules and any required addenda, and has identified any deviations or items of non-compliance providing an explanation of where it does not comply.

Section Title	Submitted	Variations, Alternatives or Explanation for Non-Compliance
<u>Proposal Form</u> (Part D)		
<u>Part D-Attachment A</u> Legal Terms and Conditions		
<u>Schedule A</u> Requirements		
<u>Schedule B</u> Pricing		
<u>Schedule C</u> Site Tests and Other Tests		

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - PROPOSAL FORM

Section Title	Submitted	Variations, Alternatives or Explanation for Non-Compliance
<u>Schedule D</u> Training		
<u>Schedule E</u> Sub-Contractors		
<u>Schedule F</u> City Contributions		
<u>Schedule G</u> Support Services and Service Levels		
<u>Schedule H</u> Key Personnel		
<u>Schedule I</u> Work Plan Time Estimates		
<u>Schedule J</u> Documentation		
<u>Schedule K</u> Deviations and Variations		
<u>Schedule L</u> Deliverables		
<u>Schedule M</u> Safety and Health Plan		

4.0 Proponent's Declaration and Acknowledgment

4.1 The undersigned Proponent confirms that it has read and agreed to the Legal Terms and Conditions attached as **Attachment A** and agrees to be bound by the same.

IN WITNESS TO THE ABOVE, the Proponent has executed this Proposal Form and submits same with the attached Schedules:

Authorized Signatory for the Proponent Date

Name: _____ (please print)

Title: _____ (please print)

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - ATTACHMENT A - LEGAL TERMS AND CONDITIONS

ATTACHMENT A—LEGAL TERMS AND CONDITIONS

1.0 Application of these Terms and Conditions

1.1 These legal terms and conditions set out the City's and the Proponent's and the Proponent's Sub-Contractors' (if any) legal rights and obligations only with respect to this RFP and Proposal process. In no event will the legal terms and conditions of this Attachment A [Legal Terms and Conditions] to this Proposal Form [Part D] apply to the Contract formed between the City and the successful Proponent.

2.0 Definitions

2.1 The following terms have the following meanings:

- (a) "City" means the City of Vancouver, a municipal corporation continued pursuant to the Vancouver Charter, and includes, but is not limited to, the Vancouver Police Board, the City's Board of Parks and Recreation, the Vancouver Fire and Rescue Service, and the Vancouver Library Board;
- (b) "City's Evaluation Team" means a team of stakeholder representatives who will evaluate Proposals;
- (c) "COC" means the Canadian Olympic Committee;
- (d) "Contract" means the legal agreement anticipated to be formed between the City and the successful Proponent substantially in the form set out in the Form of Agreement, separate from the contract between the Proponent and the City formed by this RFP and this Attachment A [Legal Terms and Conditions] to this Proposal Form [Part D];
- (e) "Form of Agreement" means the form of agreement attached as Appendix 1 [Form of Agreement] to this RFP;
- (f) "IOC" means the International Olympic Committee;
- (g) "Losses" means in respect of any matter
 - (i) all direct, indirect, special, incidental and consequential damages, as well as
 - (ii) all claims, demands, proceedings, losses, liabilities, deficiencies, costs and expenses (including without limitation all legal and other professional fees and disbursements, interest, penalties and amounts paid in settlement whether from a third person or otherwise);
- (h) "Proposal" means the package of documents, consisting of this Proposal Form [Part D] as well as all Schedules and other required documents, once completed and submitted to the City by the Proponent, and "proposal" means any proposal submitted by any other proponent, excluding or including the Proponent, depending on the context;

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - ATTACHMENT A - LEGAL TERMS AND CONDITIONS

- (i) "Proponent" means the legal entity(ies) who has (have) signed and delivered this Proposal Form, and "proponent" means any proponent responding to the Instructions to Proponents, excluding or including the Proponent, depending on the context;
- (j) "RFP" means the documents issued by the City as Request for Proposal No. PS09032, including all addenda;
- (k) "Sub-Contractors" includes any or all third parties listed in Schedule E [Sub-Contractors];
- (l) "VANOC" means the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games;

3.0 No Legal Obligation Assumed by City

- 3.1 Despite any other term of this Proposal Form (except only (where applicable) Section 6.3 [Limitation], Section 6.4 [Dispute Resolution], Section 7.2 [Proponent's Submission Confidential], and Section 7.5 [Declaration of Confidentiality]), the City assumes no legal duty or obligation in respect of this RFP or this Proposal process unless and until the City enters into a Contract.
- 3.2 This RFP and Proposal process is at all times contingent on funds being approved by the Vancouver City Council and a Contract being signed by the City and the successful Proponent.

4.0 Legal Rights and Obligations Suspended

- 4.1 Despite any other term of this Proposal Form (except only (where applicable) Section 7.2 [Proponent's Submission Confidential] and Section 7.5 [Declaration of Confidentiality]), all of the respective rights and obligations of the City and Proponent, at law and in equity, in contract and in tort, and in all matters relating to the RFP and this Proposal process will be absolutely and unconditionally subject to Section 6.0 [Protection of City Against Lawsuits], and the following:
 - (a) No Duty. The City has no legally enforceable duty or obligation to the Proponent unless and until the City signs a Contract;
 - (b) Proponent's Risk. The Proponent acknowledges that the City is a public body required by law to act in the public interest. Accordingly, in no event does the City owe to the Proponent (as opposed to the public):
 - (i) a contract or tort law duty of care, fairness, impartiality or procedural fairness in the RFP or Proposal process; or
 - (ii) any contract or tort law duty to preserve the integrity of the RFP or Proposal process;

and the Proponent now waives and releases the City from all such duties and expressly assumes the risk of all Losses arising from participating in the RFP and Proposal process on this basis; and

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - ATTACHMENT A - LEGAL TERMS AND CONDITIONS

- (c) **Proponent's Cost**. The Proponent now assumes and will bear all costs and expenses incurred by the Proponent in preparing its Proposal and participating in the RFP and Proposal process.

5.0 Evaluation of Proposals

- 5.1 **Compliance/Non-Compliance**. Any Proposal which contains an error, omission or misstatement, which contains qualifying conditions, which does not fully address all of the requirements or expectations of the RFP or, which otherwise fails to conform to the RFP may or may not be rejected by the City at the City's sole discretion.
- 5.2 **Reservation of Complete Control Over Process**. The City reserves the right to retain complete control over the RFP and Proposal process at all times except only as otherwise expressly stipulated in any Contract. Accordingly, the City is not legally obligated to review, consider or evaluate the Proposals and need not necessarily review, consider or evaluate the Proposals in accordance with the procedures set out in this RFP and the City reserves the right to continue, interrupt, cease or modify its review, evaluation and negotiation process on any or all Proposals at any time without further explanation or notification to any of the Proponents subject only to the express legal terms and conditions which bind the City, which terms and conditions are expressly limited to those set out in Section 6.3 [Limitation], Section 6.4 [Dispute Resolution], Section 7.2 [Proponent's Submission Confidential], and Section 7.5 [Declaration of Confidentiality].
- 5.3 **Discussions/Negotiations**. The City may, at any time prior to or after signing a Contract, discuss or negotiate changes to the scope of the RFP, or any of the terms or conditions of the RFP with any one or more of the proponents without having any duty or obligation to advise the other proponents or to allow any proponent to vary its Proposal as a result of discussions or negotiations with other proponents or changes to the RFP, and, without limiting the general scope of Section 6.0 [Protection of City Against Lawsuits], and by way of example only, the City will have no liability to any proponent as a result of such discussions, negotiations or changes.

6.0 Protection of the City against Lawsuits

- 6.1 **Release**. Except only and to the extent that the City is in breach of Section 7.2 [Proponent's Submission Confidential] or Section 7.5 [Declaration of Confidentiality], the Proponent now releases the City from all liability for any Losses in respect of:
- (a) any alleged (or judicially imposed) breach by the City of the RFP (it being acknowledged and agreed that to the best of the parties' knowledge, the City has no obligation or duty under the RFP or Proposal process which it could breach (other than wholly unanticipated obligations or duties merely alleged or actually imposed judicially));
 - (b) any unintentional tort of the City occurring in the course of conducting this RFP and Proposal process;
 - (c) the Proponent preparing and submitting its Proposal;
 - (d) the City accepting or rejecting its Proposal or any other submission;

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - ATTACHMENT A - LEGAL TERMS AND CONDITIONS

- (e) the manner in which the City:
 - (i) reviews, considers, evaluates or negotiates any Proposal,
 - (ii) deals with or fails to deal with any Proposal or Proposals, or
 - (iii) decides to enter into a Contract or not enter into any Contract;
 - (f) the Proponent(s), if any, with whom the City enters a Contract.
- 6.2 **Indemnity.** Except only and solely to the extent that the City breaches **Section 7.2 [Proponent's Submission Confidential]** or **Section 7.5 [Declaration of Confidentiality]**, the Proponent now indemnifies and will protect and save the City harmless from and against all Losses, in respect of any claim or threatened claim by the Proponent or any of its Sub-Contractors or agents alleging or pleading
- (a) any alleged (or judicially imposed) breach by the City or its officials or employees of the RFP (it being agreed that, to the best of the parties' knowledge, the City has no obligation or duty under the RFP or Proposal process which it could breach, other than wholly unanticipated obligations or duties merely alleged or actually imposed judicially),
 - (b) any unintentional tort of the City or its officials or employees occurring in the course of conducting this RFP or Proposal process, or
 - (c) liability on any other basis related to this RFP or the Proposal process.
- 6.3 **Limitation.** In the event that, with respect to anything relating to this RFP or Proposal process (except only and solely to the extent that the City breaches **Section 6.3 [Limitation]**, **Section 6.4 [Dispute Resolution]**, **Section 7.2 [Proponent's Submission Confidential]** or **Section 7.5 [Declaration of Confidentiality]**), the City or its officials, officers, agents or employees are found to have breached any duty or obligation of any kind to the Proponent or its Sub-Contractors or agents whether at law or in equity or in contract or in tort, or are found liable to the Proponent or its Sub-Contractors or agents on any basis or legal principle of any kind, the City's liability is limited to a maximum of \$100, despite any other term or agreement to the contrary.
- 6.4 **Dispute Resolution.** Any dispute relating in any manner to this RFP or the Proposal process (except only and solely to the extent that the City breaches **Section 6.3 [Limitation]**, **Section 6.4 [Dispute Resolution]**, **Section 7.2 [Proponent's Submission Confidential]**, or **Section 7.5 [Declaration of Confidentiality]**), will be resolved by arbitration before a single arbitrator in accordance with the *Commercial Arbitration Act* (British Columbia) amended as follows:
- (a) the arbitrator will be selected by the City's Manager - Supply Management.
 - (b) Section 6.0 [Protection of City Against Lawsuits] will:
 - (i) bind the City, Proponent and the arbitrator; and
 - (ii) survive any and all awards made by the arbitrator.
 - (c) the Proponent will bear all costs of the arbitration.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - ATTACHMENT A - LEGAL TERMS AND CONDITIONS

- (d) the arbitration will take place in Vancouver, British Columbia.

7.0 Access/Ownership of Proposal Information

7.1 Proposal Documents Remain/Proposal Becomes City's Property.

- (a) All RFP packages and addenda provided to the Proponent by the City remain the property of the City and must be returned to the City upon request.
- (b) The documentation containing the Proposal, once submitted to the City, becomes the property of the City, and the City is under no obligation to return the Proposal, provided, however, that the foregoing does not entitle the City to ownership of pre-existing intellectual property rights of a Proponent that are embedded in any Proposal.

7.2 Proponent's Submission Confidential.

- (a) Subject to the applicable provisions of the Freedom of Information and Protection of Privacy Act (British Columbia) and the City's full right to publicly disclose any and all aspects of the Proposal in the course of publicly reporting to the Vancouver City Council on the Proposal results or announcing the results of the Proposals to the Proponent, the City will treat all material and information expressly submitted by the Proponent (and the City's evaluation of it) in confidence in substantially the same manner as it treats its own confidential material and information.
- (b) The Proponent now irrevocably waives all rights it may have by statute, at law or in equity, to obtain any records produced or kept by the City in evaluating its Proposal (and any other submissions) and now agrees that under no circumstances will it make any application to the City for disclosure of any records pertaining to the receipt, evaluation or selection of its Proposal (or any other submissions) including, without limitation, records relating only to the Proponent.

7.3 All City Data/Information is Confidential.

- (a) The Proponent will not divulge or disclose to any third parties any information concerning the affairs of the City which may be communicated to the Proponent at any time (whether before or after the closing date and time of this RFP process). Recognizing the need for confidentiality of the City's data, files and other confidential information, the Proponent will not use, exploit or divulge or disclose to third parties any confidential or proprietary information of the City of which the Proponent may gain knowledge in connection with or in the course of discussions or negotiations with the City.
- (b) All material and information that has or will come into the Proponent's possession or knowledge in connection with this Proposal process is confidential and may not be disclosed or utilized in any way except in accordance with Part B [Instructions to Proponents] and this Part D [Proposal Form].

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - ATTACHMENT A - LEGAL TERMS AND CONDITIONS

7.4 Disclosure Requires Prior Consent.

- (a) The Proponent may not divulge any information respecting the Proposal process to any third party without the prior written consent of the City, which consent may be arbitrarily withheld unless it is information which the City has already made public or has been required to disclose pursuant to the Freedom of Information and Protection of Privacy Act (British Columbia).

7.5 Declaration of Confidentiality.

- (a) The Proponent now declares and agrees that, except for the information disclosed by the City in the course of publicly reporting to the Vancouver City Council or any public proposal opening:
 - (i) the information supplied by the Proponent in response to the RFP is expressly provided in strict confidence,
 - (ii) any records made of the evaluation of this Proposal and all other submissions will be the property of, and private to, the City and will not be disclosed to the Proponent nor anyone else,
 - (iii) the disclosure of the information described in Section 7.5(a) and Section 7.5(b) above to anyone outside of the City's staff would reveal the Proponent's trade secrets or proprietary commercial information concerning its private business affairs, and
 - (iv) the disclosure of the information described in Section 7.5(a) and Section 7.5(b) above could reasonably be expected to harm the Proponent's competitive position, harm the City's ability to engage in competitive procurement of goods and services, and result in undue financial loss to the Proponent and/or the City.

8.0 Declaration—No Conflict of Interest / No Collusion

8.1 Declaration as to Conflict of Interest. The Proponent now confirms and warrants that there is no officer, director, shareholder, partner or employee or other person related to the Proponent's or Sub-Contractor's organizations (a "person having an interest") or any spouse, business associate, friend or relative of a person having an interest who is:

- (a) an elected official, consultant or employee of the City; or
- (b) related to or has any business or family relationship with any elected official, consultant or employee of the City, such that there would be any conflict of interest or any appearance of conflict of interest in the evaluation or consideration of this Proposal by the City, except as set out below:

[The Proponent is conclusively deemed to have declared "none" unless the Proponent deletes this note and describes any or all relationships which might give rise to a conflict of interest or an appearance of a conflict of interest.]

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - ATTACHMENT A - LEGAL TERMS AND CONDITIONS

8.2 **Declaration as to Collusion**. The Proponent now confirms and warrants that

- (a) the Proponent has no affiliation, whether legal or financial, with any other entity which is in the business of providing the same type of goods or services which are the subject of this RFP; and
- (b) the Proponent is not competing within this RFP process with any entity which it is legally or financially associated or affiliated, except as set out below:

[The Proponent is conclusively deemed to have declared "none" unless the Proponent deletes this note and describes any and all affiliations or relationships which might give rise to collusion or an appearance of collusion.]

9.0 **Other Conflict of Interest/Solicitation Terms**

9.1 **Acknowledgement**. The Proponent acknowledges and agrees that a failure to disclose any information requested in **Section 8.0 [Declaration—No Conflict of Interest / No Collusion]** above may constitute a criminal breach of trust subjecting the directors and officers of such Proponent to prosecution under the *Criminal Code of Canada*.

9.2 **No Unauthorized Communication**. Between the date on which this RFP is issued until the signing of a Contract or cancellation of this RFP process, Proponents, including their Sub-Contractors, consultants and other agents, must not communicate either directly or indirectly in any manner whatsoever with respect to this RFP with any employee, official or agent of the City including, without limitation and by way of example only, any member of City Council or the City's Evaluation Team except:

- (a) only in writing and only as set out in Section 2.0 [Conduct of RFP—Inquiries and Clarifications] of Part B [Instructions to Proponents], or
- (b) to make submissions (with Council's consent) prior to Council's consideration of any Report to Council recommending one of the short-listed proponents.

The City may treat a contravention of this **Section 9.2 [No Unauthorized Communication]** as a contravention of **Section 8.0 [Declaration—No Conflict of Interest / No Collusion]** above and such a contravention may therefore result in automatic disqualification from the RFP process and/or cancellation of any resulting Contract.

10.0 **No Promotion**

10.1 The Proponent will not disclose or promote its relationship with the City, including by means of any verbal declarations or announcements and by means of any sales, marketing or other literature, letters, client lists, press releases, brochures or other written materials without the express prior written consent of the City (except as may be necessary for the Proponent to perform the Proponent's obligations under this **Attachment A**). The Proponent undertakes not to use "City of Vancouver", "VPD", "Vancouver Police Department", "VF&RS", "Vancouver Fire and Rescue Service", "VPB", "Park Board", "VPL", "Vancouver Public Library", "VANOC", "IOC", "COC", "Vancouver 2010", "2010 Games", "2010 Winter Olympics", or any official emblem, logo or mascot of any of the above or any reference or means of promotion or publicity, without the express prior written consent of the City. Furthermore, the Proponent undertakes not to disclose or promote its relationship with the City, VANOC,

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
PART D - ATTACHMENT A - LEGAL TERMS AND CONDITIONS**

COC or IOC, in any communication or matter whatsoever as a basis to create an association, express or implied, between the Proponent and the City, COC, VANOC, IOC, the Olympics or the Olympic Movement.

11.0 Security Checks - Intentionally Omitted

12.0 Survival/Legal Effect of Proposal Contract

12.1 All of the terms of this Attachment A to this Proposal Form which, by their nature, require performance or fulfilment following the conclusion of the Proposal process will survive such process and will remain legally enforceable by and against the Proponent and the City.

13.0 Most Favoured Customer

13.1 The Proponent confirms and warrants that the provisions in its Proposal treat the City as a most favoured customer with respect to the price, payment, warranty, and support services, and represents that the price, payment, warranty, and support services provisions of its Proposal are equivalent to or better than those in effect with, or offered to, any other of its current or potential customers for the same deliverables, products and services, and that such most favoured customer status will be maintained for the City during the warranty period.

As evidence of the Proponent's intent to be legally bound by this **Attachment A**, the Proponent has executed and delivered this **Attachment A** as an integral part of this **Proposal Form [Part D]** in the manner and space set out above.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A - REQUIREMENTS

SCHEDULE A—REQUIREMENTS

This Schedule identifies the Requirements to which the City is seeking a solution or a response. Proponents are to address, but are not limited in their response to, the respective issue(s). Background information and general instructions need not be included in the response, however all requests for information, questions, specific requirements, tables, etc. should be included and the same numbering sequence used.

1.0 REQUIREMENTS

The required Machine Based Global Positioning System should integrate with existing City and Metro Vancouver regional infrastructure (BCACS^m and network infrastructure), and where integration is not immediately possible, identify the necessary infrastructure and technology required to ensure such System integration.

Within this Section, the minimum user technical, business, and corporate experience requirements have been identified for response to this RFP.

The MBGPS must provide, but not be limited to the following:

1.1 User Requirements

- a) System will differentiate accessibility of data and system functionality based on user type. For example, the specification of various user groups:
 - i) System administrator;
 - ii) Administrative user;
 - iii) Reporting user;
 - iv) Bulldozer user;
 - v) Compactor user; and
 - vi) Other _____.

Please detail how the System will differentiate user access to data and functionality.

- b) System will ensure that all data storage and access conforms to City security standards as listed within the City standards section of this document.

Please detail the security elements of the proposed System.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS

1.2 Technical Requirements

Vehicle Interface

- a) System will provide to the vehicle operator a simplified graphical representation of local reference infrastructure (gas lines, gas wells, constructed roads, fence lines), current active Landfill face, the difference between the current active Landfill face and the design specifications, areas of vehicle and/or operator avoidance, burial locations, and any other information to be displayed to the vehicle operators:

Please detail, by providing relevant imagery (screen captures, photographs, and written explanations), how information is to be displayed to the user from the vehicle display; for example:

- i) Local reference infrastructure;
 - ii) Current active Landfill face;
 - iii) Difference between active Landfill face and design specifications;
 - iv) Grade and slope details;
 - v) Areas of vehicle/and or operator avoidance (security areas & proximity alert notification areas);
 - vi) Burial locations; and
 - vii) Other information relayed to the operator by the System.
- b) System will have a vehicle colour display for the operator:

Please detail the specifications of the vehicle display:

- i) how point, line and area features are displayed;
 - ii) how color is specified for features and status definitions;
 - iii) the tolerance between status definitions;
 - iv) how the System differentiates between vehicle use types (bulldozer vs. compactor); and
 - v) how different material types are shown (i.e. dirt, garbage, asbestos, etc).
- c) System will provide near real time updates (within 2 seconds) of design changes from administrators to vehicle operators, in the form of graphical representation.

Please specify how administrative updates will be integrated in the vehicle system.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

- d) System will allow for a customized display of information for bulldozer operators.
- Please detail bulldozer specific system details - graphical representation, tools, and functions for bulldozer operations.
- e) System will allow for a customized display of information for compactor operators.
- Please detail compactor specific System details - graphical representation, tools, and functions for compactor operations.
- f) System will have a vehicle user interface for the operator to indicate point locations of interest (for example, hazardous waste burials, issue locations).
- Please detail how user point locations of interest user input will be entered, validated, stored and published to other vehicles within the System.
- g) System will allow vehicle operators to update administrative fill plan information, with near real time point and/or area burial location updates:
- Location of burials
- i) Unique ID (to be automatically input);
 - ii) X/Y/Z coordinates of the burial extents (to be automatically input);
 - iii) Depth (to be automatically input);
 - iv) Burial type (to be input from the user from a list of selection options);
 - v) Burial date (to be automatically input); and
 - vi) Vehicle ID (to be automatically input).
- h) System will illustrate user defined point entries on vehicle display, as well as update administrative system - using near-real time secure data updates.
- i) For compactor vehicles: System will provide a visual representation of the current compaction level and number of compaction passes to the vehicle operator.
- Please detail how compaction information is relayed to the operator.
- j) System will notify vehicle operator when design grade, slope, and/or compaction density has been achieved.
- Please specify how vehicle operators will be notified when the designed grade, slope and/or compaction density has been achieved.
- k) System will allow administrative users the ability to create, edit and delete security area avoidance, and specifications of proximity alert notifications for specific vehicles and/or operators.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

Please specify how security areas and proximity notifications for areas will be handled within the system.

- l) System will notify vehicle operators and administrative user when entering a security area and when entering a proximity alert notification area.

Please specify how the System will react if a security area boundary and/or a proximity alert notification is / are entered by a specific vehicle (both within the onboard vehicle system as well as within the administrative system).

- m) System will have the ability to report near real time (within two (2) seconds) vehicle productivity and volume calculations to vehicle operators. This functionality must be configurable to either allow or disallow display of the details to the vehicle operator.

Please specify how productivity and volume details will be calculated.

Please specify how productivity and volume details will be reported to vehicle operators.

- n) System will have a proven ability to function in an operating temperature between -10°C and +35 °C [between 14 and 95 Fahrenheit].

- o) Vehicle components (vehicle display & input system, GPS antenna, and wireless network communications) will be securely mounted to the vehicle.

Please describe how the vehicle components (user display & input system, GPS antenna, and wireless network communications) will be mounted for bulldozer and compactor.

Please provide documentation regarding any customizations in terms of vehicle mounting that may be necessary.

- p) Vehicle components must contain features built into the System to guard against shock and environmental variables (moisture & dust) specific to the Landfill environment.

Please specify what system features guard against the environmental variables seen within a landfill environment.

- q) Vehicle components (vehicle display & input system, GPS antenna, and wireless network communications) will derive system power directly from the vehicle (bulldozer/compactor) while ensuring vehicle performance is not affected.

Please describe how the vehicle components (user display & input system, GPS antenna, and wireless network communications) will derive power from the vehicle.

Please detail what components are required for the system to be wired directly to the vehicle.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

Please provide documentation regarding any customizations in terms of vehicle wiring that may be necessary. Documentation requirements are contained in Schedule J.

Administrative Interface

- a) System will provide to the administrative user of the administrative component of the System, a means by which graphical representation of Landfill features will be created, edited, and maintained by the administrator. Examples of landfill features include, but are not limited to the following:
- i) local reference infrastructure (gas lines, gas wells, constructed roads, fence lines);
 - ii) current active Landfill face;
 - iii) the difference between the current active Landfill face and the design specification;
 - iv) the design specifications;
 - v) areas of vehicle and/or operator avoidance;
 - vi) burial locations; and
 - vii) any other information to be displayed to the vehicle operators.

Please detail, by providing relevant imagery (screen captures, photographs, and written explanations), how information is to be displayed, created, edited and how the System will maintain Landfill features within the administrative interface.

- b) System will limit functionality and data access to administrative components based on username/user profile specification.

Please describe how administrative system functionality and data access is limited based on username/user profile specification.

- c) System will allow administrators the ability to specify vehicle productivity and volume specification display to vehicle operators.
- d) System will store data in a secure central location.

Please detail how data is stored and accessed within the System.

Please provide high-level network diagram for the proposed System. Documentation requirements are defined in Schedule J.

- e) System will allow the administrative user the ability to create, edit, and delete the following - using industry standard design based tools (AutoCAD - Civil 3D):

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

- i) Local reference infrastructure (gas lines, constructed roads, fence lines, ditching, lighting management)
- ii) Landfill design models
- iii) Simple planar or sloped field designs independent of landfill design models

Please detail the general workflow for inputting, editing and deleting elements within the landfill design model.

- f) System will allow administrative users to incorporate external data into the landfill design model, in the form of:

AutoCAD Drawing Exchange Format (*.DXF) and/or

- i) AutoCAD Design File (*.DGN) and/or
- ii) AutoCAD Point File (*.pnt) and/or
- iii) Digital Terrain Models (*.dtm) and/or
- iv) Excel comma separated value file (*.csv) and/or
- v) Formatted Text File (ASCII, *.txt) and/or
- vi) Other file format.

Please detail how external data sources can be incorporated into the current landfill design model.

- g) System will allow administrative users to specify the following:

- i) Landfill compaction
 - a) Minimum: Number of passes specification;
 - b) Desirable: Specification of a refuse density value (tonnes/m³).
- ii) Grade/Slope specification
 - a) Minimum: Specification of desired slope (for example: 3H:1V or 33%).
- iii) Lift height details
 - a) Desirable: Specification of desired elevation as Z coordinate value from geodetic projection base (for example: 17.5m).

- h) System will store original, current, and landfill design topological data;
- i) System will store original, historic, and current vehicle location and topological data, which is accessible through the administrative system.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

Please detail how original, historic and current vehicle location and topological data is stored, accessed and displayed within the System.

- j) System will allow administrative users the ability to search and display Landfill details based on specific date, date range and/or location;

Please specify how administrative queries will be handled within the System.

- k) System will store local reference data and active landfill face data in a non-proprietary format, allowing other applications access/export of the data, for example

- i) AutoCAD Drawing Exchange Format (*.DXF) and/or
- ii) AutoCAD Design File (*.DGN) and/or
- iii) AutoCAD Point File (*.pnt) and/or
- iv) Digital Terrain Models (*.dtm) and/or
- v) Excel comma separated value file (*.csv) and/or
- vi) Formatted Text File (ASCII, *.txt) and/or
- vii) Other file format

If the System requires data to be stored in a proprietary format, please describe how the data from this System can be integrated into other enterprise applications such as:

- i) AutoCAD Civil 3D
- ii) SQL Reporting Services

- l) System will transmit new design information from administrative interface to vehicle interface in near real time, and retrieve data information from vehicle system into the administrative interface and storage system.

Please detail how updates will be processed within the System.

- m) System will provide administrative users the ability to verify and review any changes made to landfill design models, landfill infrastructure, and avoidance zones or landfill data before transmitting the design information from the administrative interface to the vehicle interface.

Please detail how data verification and reviews will be conducted.

- n) System will provide administrative users the ability to verify and review any changes or data input created from the vehicle interface, before incorporating the data into the master design details.

Please detail how updates into the master design details will be processed.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

- o) System will display the following vehicle information (historic as well as current values) on the administrative interface:
 - i) Vehicle productivity (compaction and slope details);
 - ii) Vehicle locations (X, Y, Z point values);
 - iii) Vehicle movement within the landfill (movement of vehicles during a particular time period);
 - iv) GPS signal information; and
 - v) Security Area breaches and Proximity Alert notifications.

Please describe the administrative system display functionality.

- p) System will allow administrators the ability to remotely connect to administrative interface - remote connections must conform to the City's IT Standards and Protocols.
- q) System will allow administrators to perform basic troubleshooting and diagnostic routines of the following:
 - i) Administration - vehicle data transfer;
 - ii) Administration input, edit and update of datasets;
 - iii) Administration review of vehicle based data;
 - iv) Vehicle GPS data collection; and
 - v) Vehicle display troubleshooting (remotely connecting to the vehicle display to troubleshoot display issues from the administration office)

Please outline all troubleshooting and diagnostic routines of the System.

GPS Details

- a) System will utilize survey grade dual frequency GPS receivers capable of obtaining the minimum specified accuracy.
- b) System will be capable of, or upgradeable to, receiving and processing the GPS L2C and L5 signals as well as "GLONASS" and "GALILEO" signals when required.

Please outline any hardware and software requirements needed to utilize these additional signals and the specific costs associated with each.
- c) System will achieve the following minimum design accuracy specifications:
 - i) Horizontal Accuracy: 4cm @ 20km; and
 - ii) Vertical Accuracy: 6 cm @ 20km.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

- d) System will be capable of generating Universal Transverse Mercator (UTM) (Zone 10 - North) coordinates (Northing/Easting) referenced to NAD83(CSRs). The system will be capable of generating orthometric elevations through the use of a regional "Geoid model".
- e) System will obtain centimetre level GPS positions (X,Y,Z coordinates) in Real-Time Kinematic ("RTK") mode utilizing GPS correction messages transmitted from the MV Real Time GPS Service.
- f) System will utilize one of the following RTK - GPS correction data formats:
 - i) RTCM v3.0; or
 - ii) CMR+.
- g) System will receive GPS correction messages from the MV Real-Time GPS Service through one of the following methods:

- i) A direct link to the open Internet through the secure City network infrastructure, from which the streaming GPS correction messages would then be broadcast to the GPS receivers. The link to the machine based GPS receivers would be via a radio communication system capable of reliable broadcast to the entire Landfill site.

Please describe, in detail, the configuration and all hardware and software necessary for the operation of this RTK "correction message distribution system". Discuss any Site specific conditions that may warrant the use of additional hardware to ensure the reliability and accuracy of the System (i.e. radio repeaters).

- ii) A mobile data device (wireless handset) link via the open Internet or the Bell Mobility CDMA 1X Wireless Network (Bell's private internet network - VPN service) at each individual GPS receiver. The mobile data device must be validated and approved for use with the MV Real Time GPS Service. This operation of the wireless devices must be seamless and transparent to the users.

Please describe, in detail, the System configuration and all hardware, software and other equipment necessary for its operation. Discuss any Site specific conditions that may warrant the use of additional hardware to ensure the reliability and accuracy of the System.

- iii) Any other System that is capable of secure, accurate, reliable and user-friendly delivery of GPS correction messages to the GPS receivers.

Please describe, in detail, the System configuration and all hardware, software and other equipment necessary for its operation. Discuss any Site specific conditions that may warrant the use of additional hardware to ensure the reliability and accuracy of the System (i.e. radio repeaters).

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

- h) Once in place, the GPS component will require a validation procedure to verify that the resulting coordinate (X,Y,Z) values obtained from each GPS receiver fall within the specified minimum accuracy.

Please describe this process.

- i) It is expected that the proposed Machine Based Global Positioning System will operate within the identified input from the Metro Vancouver RTK Service; however, please identify and detail any deviations from the MV Real Time GPS Service which may be required for the proposed System.

City of Vancouver Standards

City standards which must be adhered to include the following:

- a) Server OS: Windows Server 2003/2008;
- b) Windows Active Directory Integration for permissions management;
- c) Wireless Network Security: Minimum WPA2 Encryption;
- d) Wireless Network Transaction Speed: Minimum 10mb/second;
- e) Client OS: Windows XP (SP 2);
- f) Database: either Oracle 10g or SQL Server 2005;
- g) Reporting: SQL Server Reporting Services 2005 (preferred);
- h) Central Backup System: Tivoli Storage Management System;
- i) Design Based Tools: AutoCAD Civil 3D (2008)

NOTE: The City is committed to ensuring the security of data within its network, and there is a high expectation of data security measures and best practices for any wireless network functionality.

It is expected that the proposed Machine Based Global Positioning System will operate within the identified standards. However, please identify any deviations as required.

1.3 Business Requirements

The Machine Based Global Positioning System must provide, and is not limited to the following:

- a) Incorporation of historic datasets, please describe the implementation plan with regards to historical data (AutoCAD, Trimble 5800 GPS points & Oracle based datasets);
- b) Expandability to incorporate changes within the Site, and potentially include other vehicles within the Landfill;

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

Please specify the process involved in the following:

- i) outfitting a new bulldozer into the proposed System;
 - a) GPS ready vehicles; and
 - b) Non-GPS ready vehicles.
- ii) outfitting a new compactor into the proposed system;
 - a) GPS ready vehicles; and
 - b) Non-GPS ready vehicles.
- iii) incorporating a new vehicle type into the System (for example, a Grader).
- iv) transferring the vehicle system from an existing machine to a temporary or replacement machine.

NOTE: Expected costs associated with these processes should be outlined in Schedule B.

- c) Ability to provide local support for installation and post sale support;

Please identify the nearest support office to the Landfill, and outline your ability to provide post sale support. "Support Services" and "Service Level Agreement" specifications are contained in Schedule G; and costs associated with Support Services and Service Level Agreements are contained in Schedule B.

- d) A detailed installation plan for Landfill vehicles including estimated installation period per vehicle, location of installation, and post installation monitoring.

Please outline an installation plan and any necessary requirements to meet this plan and list major project component variations to the sample work plan estimates contained within Schedule L.

- e) A detailed local training plan for landfill vehicle operations staff, Landfill management, and support personnel;

Please detail a potential training plan for Landfill vehicle operations staff, Landfill management and support personnel - keeping in mind that the Landfill will remain in full operation during training in use of and configuration of the System. Training requirements are contained in Schedule D.

- f) Provision of at least 2 sets of detailed training manuals (administrative level) and at least 8 sets of basic training manuals (vehicle operator level);
- g) Data in Canadian references (measurement units, date, location);
- h) System will display data in standard local projections.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

City projection parameters:

i) Universal Transverse Mercator (UTM) Zone 10 - North

a) Easting/Northing (m).

ii) North American Datum 1983 (NAD-83 - GRID)

i) Machine Based Global Positioning System performance seventeen (17) hours per day seven (7) days per week with a 0% data loss. A typical business day runs from 5:00 AM to 10:00 PM. However there are occasions when the Landfill will be in operation for twenty four (24) + hours;

Please detail the System characteristics and auditing functionality which will ensure a superior level of performance of the System during the Landfill's operational hours.

j) The Proponent shall be responsible for detailing the flow of transactional processes within the System, outlining the procedures to ensure data integrity and business continuity within the System and the timely transaction of landfill design models

k) System will contain reporting functionality (System reports/ad hoc reporting) to access both current and historic datasets;

Please detail System reports contained within the System, and the functionality of ad-hoc reporting.

l) A description of Machine Based Global Positioning System documentation (administrative user & vehicle operator user), including the functionality of components and presentation and usability; as identified in Schedule J.

m) Detailed Support Services and Service Level Agreements;

Please outline support and service level agreement exceptions to the Support and Service Level Agreement specifications as outlined in Schedule G.

n) Based on past project experience and installations, please provide information with supporting statistics and benchmarks, on transaction processing performance - user response time and transaction processing capacity - that could be expected from the proposed System.

o) Describe how the proposed system would be implemented in a multi-phased approach.

Within Schedule I - Work Plan Time Estimates, the expected System implementation will be conducted in two phases:

Phase 1

i) Full System administrative component installation and configuration;

ii) GPS data configuration;

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

- iii) Full System vehicle components installation and configuration for the following:
 - a) one (1) bulldozer vehicle; and
 - b) one (1) compactor vehicle.

Phase 2

- i) System administrative components edits and configuration to incorporate new vehicles;
- ii) GPS data configuration (if required); and
- iii) Full System vehicle components installation and configuration for the following (i.e. seven (7) machines altogether):
 - a) four (4) bulldozer vehicles; and
 - b) one (1) compactor vehicle.

Please outline work plan estimate exceptions to the specifications as outlined in Schedule I.

- p) Specify whether the proposed System is a commercial off the shelf (“COTS”) application, or is comprised of custom software.
- q) Specify how much, if any, customisation to current functionality could be expected in order to comply with the requirements as listed in Schedule A.
- r) Specify system constraints and limits with respect to transaction volume, database size, number of concurrent users, etc.
- s) Full System warranty.

Please outline the System warranty, as identified in Schedule J.

1.4 Proponent’s Company Information Requirements

Please provide details on the following:

- a) Company Experience
 - i) Describe type of company or companies involved and association e.g. consortium, joint venture;
 - ii) Describe company/entity size, depth, and annual sales volume (in dollars);
 - iii) Provide client references, where possible;
 - iv) Provide background of proposed key personnel

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE A—REQUIREMENTS**

- v) Provide details on involvement of proposed key personnel
 - vi) Provide a history of litigation or claims made against the Proponent during the three years immediately prior to the Closing Time;
 - vii) If not a Canadian business, indicate nature and extent of current operations in Canada or strategy for conducting business and operations in Canada.
- b) **Completed and Current Major Projects**
- i) Provide a project list, with a detailed description of three (3) relevant, completed machine based global positioning system projects of similar size and scope, including the following:
 - a) name of customer,
 - b) description and value of the program,
 - c) total number of project hours from project initiation to production,
 - d) amount of customization from baseline application required to address requirements,
 - e) system installation date,
 - f) level of support in hours per month from post-commissioning to present,
 - g) company personnel involved,
 - h) client/owner references with contact names and telephone numbers.

NOTE: Any projects that are currently underway should not be included in the three on the project list, but can be described as above;

- ii) Describe capacity to undertake the City's project;
- iii) The Applicant is expected to demonstrate to the City its ability and or commitment to supply the proposed Machine Based Global Positioning System;

1.5 Value Added Services

Describe any additional services or benefits offered as part of the Applicant's methodology and work program other than those described in Sections 1.1 - 1.4.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE B - PRICING

SCHEDULE B—PRICING

Proponents should include the proposed price for the solution and associated implementation service and support costs based on Schedule A [Requirements].

1.0 Instructions

- 1.1 **Prices.** Prices are to be quoted F.O.B destination (Landfill), including freight, unloading at destination, import duties, brokerage, royalties, handling, overhead, profit and all other costs included.
- 1.2 **Taxes.** Goods and Services Tax and Provincial Sales Taxes are to be excluded.
- 1.3 **Currency.** Prices are to be quoted in Canadian currency.
- 1.4 **Total Cost.** The Proponent having reviewed all terms, conditions and Requirements set out in the RFP and the Schedules thereto, shall provide pricing which projects the total cost of the completed project. Notwithstanding this, the costs shall be broken down to allow for analysis (e.g. hardware, software, customization, installation, testing, training, documentation, project management, etc.). Furthermore, the unit cost and quantity is to be included for each item and presented in a manner in which units can be added or subtracted should the City's final requirements vary. Any additional costs for Requirements specifically marked as "desirable" or "optional" should be provided separately.
- 1.5 **Fixed Price.** The intent of this RFP is to seek "fixed price" proposals from Proponents based on their understanding of the Requirements as at the time of submitting their Proposals.
- 1.6 **Descriptions.** The descriptions in the pricing worksheets should include, as applicable, at minimum the following information: make, model, packages, release and any other information required to make clear exactly what is being proposed. If this is a consortium bid, the Proponent should indicate if a component is being supplied by other than the lead Proponent.
- 1.7 **Terms and Conditions.** Proponents are to carefully review **Appendix 1 [Form of Agreement]** and the payment terms set out therein. As with the rest of such Appendix, it will be assumed that such payment terms are agreed to and built into the pricing set out in this **Schedule B** unless specifically noted otherwise by the Proponent in **Schedule K [Deviations and Variations]**.
- 1.8 **Purchasing.** The City will purchase components on a "when required" basis. The Proponent will supply the latest version or model of the component available at that time. All pricing schemes and discounts must remain constant throughout all phases of the project.

2.0 Specific Responses

2.1 Price Discounts

- a) What is the pricing discount breakdown being offered to the City?

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE B - PRICING**

- b) What percentage is being offered by the manufacturer?
- c) What percentage is being offered by the Proponent?
- d) What other special pricing or offers have been included?
- e) Is there a time limit as to when all the components of this project must be purchased to receive this pricing?

2.2 During and Post-Project Pricing

- a) Once the City has given "final acceptance" and the project is complete, will there be any changes to the pricing discount structure offered to the City?
- b) If yes, please describe.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE B - PRICING

Proponents should include pricing here for all components, including licenses and implementation services needed to meet the GPS requirements of the City.

SUMMARY PRICING TABLE

ITEM	DESCRIPTION	TOTAL OPTIONAL	TOTAL COST
1.0	Hardware	\$	\$
2.0	Software	\$	\$
3.0	Customization/System Integration	\$	\$
4.0	Installation	\$	\$
5.0	Training	\$	\$
6.0	Testing	\$	\$
7.0	Documentation	\$	\$
8.0	Maintenance and Service Level Agreements	\$	\$
9.0	Project Management	\$	
10.0	Other <i>(If Necessary)</i>	\$	\$
	PST	\$	\$
	GST	\$	\$
	TOTAL PRICE	\$	\$

PROVISIONAL COSTS

ITEM	DESCRIPTION	TOTAL OPTIONAL	TOTAL COST
11.0	Hardware Transfer	\$	\$
12.0	Software Transfer	\$	\$
13.0	Other <i>(If Necessary)</i>	\$	\$
	PST	\$	\$
	GST	\$	\$
	TOTAL PRICE	\$	\$

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE B - PRICING

1.0 HARDWARE (Vehicle Component, and if necessary GPS Hardware)*

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
1.1				\$	\$
1.2				\$	\$
1.3				\$	\$
1.4				\$	\$
1.5				\$	\$
	TOTAL HARDWARE			\$	\$

* Server and Network hardware will be provided by COV, based on the proponents specifications - as per Schedule A.

2.0 SOFTWARE

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
2.1				\$	\$
2.2				\$	\$
2.3				\$	\$
2.4				\$	\$
2.5				\$	\$
	TOTAL SOFTWARE			\$	\$

3.0 CUSTOMIZATION/SYSTEM INTEGRATION

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
3.1				\$	\$
3.2				\$	\$
3.3				\$	\$
3.4				\$	\$
3.5				\$	\$
	TOTAL CUSTOMIZATION/SYSTEM INTEGRATION			\$	\$

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE B - PRICING

4.0 INSTALLATION

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
4.1				\$	\$
4.2				\$	\$
4.3				\$	\$
4.4				\$	\$
4.5				\$	\$
	TOTAL INSTALLATION			\$	\$

5.0 TRAINING

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
5.1				\$	\$
5.2				\$	\$
5.3				\$	\$
5.4				\$	\$
5.5				\$	\$
	TOTAL TRAINING			\$	\$

6.0 TESTING

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
6.1				\$	\$
6.2				\$	\$
6.3				\$	\$
6.4				\$	\$
6.5				\$	\$
	TOTAL TESTING			\$	\$

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE B - PRICING

7.0 DOCUMENTATION

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
7.1				\$	\$
7.2				\$	\$
7.3				\$	\$
7.4				\$	\$
7.5				\$	\$
	TOTAL DOCUMENTAION			\$	\$

8.0 MAINTENANCE & SERVICE LEVEL AGREEMENTS

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
8.1				\$	\$
8.2				\$	\$
8.3				\$	\$
8.4				\$	\$
8.5				\$	\$
	TOTAL MAINTENANCE & SERVICE LEVEL AGREEMENTS			\$	\$

9.0 PROJECT MANAGEMENT

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
9.1				\$	\$
9.2				\$	\$
9.3				\$	\$
9.4				\$	\$
9.5				\$	\$
	TOTAL PROJECT MANAGEMENT			\$	\$

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE B - PRICING

10.0 OTHER (IF NECESSARY)

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
10.1				\$	\$
10.2				\$	\$
10.3				\$	\$
10.4				\$	\$
10.5				\$	\$
	TOTAL OTHER			\$	\$

11.0 HARDWARE TRANSFER

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
11.1	TRANSFER GPS COMPONENTS ONTO RENTAL EQUIPMENT			\$	\$
11.2	TRANSFER GPS COMPONENTS ONTO NEW EQUIPMENT (GPS READY)			\$	\$
11.3	TRANSFER GPS COMPONENTS ONTO NEW EQUIPMENT (NON-GPS READY)			\$	\$
11.4	OTHER: <DESCRIBE>			\$	\$
	TOTAL HARDWARE TRANSFER			\$	\$

12.0 SOFTWARE TRANSFER

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
12.1	INCORPORATION OF RENTAL EQUIPMENT INTO SYSTEM			\$	\$
12.2	INCORPORATION OF NEW EQUIPMENT INTO SYSTEM			\$	\$
12.3	SOFTWARE SYSTEM UPGRADES			\$	\$
12.4	OTHER: <DESCRIBE>			\$	\$
	TOTAL SOFTWARE TRANSFER			\$	\$

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE B - PRICING

13.0 OTHER (IF NECESSARY)

ITEM	DESCRIPTION	UNIT COST	QUANTITY	OPTIONAL	TOTAL COST
13.1				\$	\$
13.2				\$	\$
13.3				\$	\$
13.4				\$	\$
	TOTAL OTHER			\$	\$

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE C - SITE TESTS AND OTHER TESTS

SCHEDULE C - SITE TESTS AND OTHER TESTS

1.0 General

- 1.1 Note: This draft testing plan has been developed based on the requirements and specifications within the Machine Based Global Positioning System RFP # PS09032. The City reserves the right to amend the testing plan requirements based upon the results of the Request for Proposal process.
- 1.2 Schedule C contains a preliminary high level description of, and guidelines for, the methodologies, specifications and procedures to be used for the shop Tests and the Site Tests of the Customized MBGPS referenced in **Appendix 1 [Form of Agreement]**. The Contractor shall develop a final Test plan containing detailed testing methodologies, specifications and procedures, which after review and approval by the City, shall constitute the Tests to be carried out. Documentation requirements associated with site tests are referenced in Schedule J.

2.0 Off Site Testing

- 2.1 Administration or Admin Center (Landfill Site location where System administration server located)
- a) Accessibility of data and System functionality
- i) Create user groups with varying permissions
- Results:
Number of user groups created: _____
Group/Permissions: _____
- ii) Assign users to various groups
- Results:
Group/User Associations: _____
- iii) Test data access and system functionality based on user & user group assignment
- Results:
- Were users able to access functionality associated with their user group permissions? YES / NO
- Were users unable to access functionality NOT associated with their user group permissions? YES / NO
- Was an error message relayed to the user where they did NOT have sufficient privileges to access the functionality? YES / NO
- Was the error message relayed understandable to the average, non-technical user? YES / NO

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE C - SITE TESTS AND OTHER TESTS**

- b) Upload design information from Administration Center into display installed on Landfill machines or vehicles (also referred to as "Host Vehicles")

Results:

Was design drawing uploaded to the Host Vehicle display? YES / NO

Was an error message relayed to the user? YES / NO

If YES, what was the error associated with the design drawing upload?

If YES, was the error message relayed understandable to the average, non-technical user? YES / NO

2.2 Host Vehicle Interface

- a) Color display in sufficient resolution and of sufficient size of:

i) City design plans

ii) Current location and elevation

iii) Difference between current location/elevation and design plans

iv) Grade/slope details

v) Host Vehicle burial locations

Results:

Is the design drawing identifiable within the display? YES / NO

How was it differentiated from other visual elements within the display?

Is current vehicle location and elevation identifiable within the display? YES / NO

Is the current vehicle location and elevation values displayed to the vehicle operator? YES / NO

How is current vehicle location and elevation differentiated from other visual elements within the display?

Are display elements visible and clearly differentiated when vehicle is in active operation, for a vehicle operator with 20/20 vision? YES / NO

Are display elements visible and clearly differentiated when vehicle is in active operation, for a vehicle operator with 20/40 vision? YES / NO

Are display elements differentiated based on color? YES / NO

If YES, does the system allow for accommodations for vehicle operators based on colour blindness? YES / NO

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE C - SITE TESTS AND OTHER TESTS**

If YES, how does the system accommodate for vehicle operators who suffer from colour blindness? _____

- b) Notification of security area / proximity alert areas to the Host Vehicle operator

Results:

Is the security area boundary clearly identifiable to the vehicle operator within the display, while the vehicle is active within the Landfill? YES / NO

How was it differentiated from other visual elements within the display?

When the vehicle passes into a security area/ proximity alert area - how is this relayed to the vehicle operator?

Is the notification to the vehicle operator - when entering a security area / proximity alert area - sufficient for vehicle operator comprehension?

YES / NO

3.0 Site Tests

3.1 Host Vehicle:

- a) within 300m of the Administration Center
- i) GPS satellite and signal status information
 - ii) Data upload from administration
 - a) New design elements
 - b) Security area / proximity alert notification area updates
 - iii) Data display
 - iv) Data download to administration

Results:

Is the design drawing identifiable within the display? YES / NO

Is the design drawing displayed within the vehicle current? YES / NO

Is current vehicle location and elevation identifiable within the display? YES / NO

Is the current vehicle location and elevation values displayed to the vehicle operator? YES / NO

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE C - SITE TESTS AND OTHER TESTS**

Are GPS satellite and signal status sufficient to allow for constant communication of location points to the vehicle and the vehicle operator? YES / NO

Are display elements (including current location and fill specifications) visible and clearly differentiated when vehicle is in active operation, for a vehicle operator with 20/20 vision? YES / NO

Are display elements (including current location and fill specifications) visible and clearly differentiated when vehicle is in active operation, for a vehicle operator with 20/40 vision? YES / NO

Are vehicle data points uploaded to the administrative system in a timely fashion? YES / NO

- b) Repeat Test at 4 random points within the 300m buffer of the Administration Center

Results:

Were the results of the first Test replicated in the 4 random point Tests, internal to the 300m buffer of the Admin Center? YES / NO

If NO, what were the elements of the test which resulted in a differing result?

- c) Repeat Test at 7 random points external to the 300m buffer of the Admin Center

Results:

Were the results of the first Test replicated in the 7 random point Tests, external to the 300m buffer of the Admin Center? YES / NO

If NO, what were the elements of the Test which resulted in a differing result?

4.0 Sample Testing Specifications

4.1 GPS Sample Testing parameters:

- a) Connection to the network must occur over 3 days (Friday, Monday, Tuesday)
- b) Connection must be continuous for more than 60 minutes duration
- c) Connection must occur at 7:00 A.M. and 3:00 P.M. during each of the Testing dates

Results:

Percent (%) of Noise errors within session: _____

Percent (%) of Bias errors within session: _____

GPS readings of known location points (provide 10 Testing points)

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE C - SITE TESTS AND OTHER TESTS**

4.2 Vehicle/Admin Center Sample Testing parameters:
Downloading information from Admin Center to vehicle

- a) Connection to the Host Vehicle from the Admin Center must occur over 3 days (Friday, Monday, Tuesday)
- b) Connection must download a combination of new design drawings, and design drawing edits
- c) Connection must occur at 8:00 A.M, 12:00P.M., and 2:00 P.M. during each of the Testing dates

Results:

Percent (%) of Download transactions within session: _____

Percent (%) of Download errors within session: _____

Uploading information from Vehicle to Admin Center

- d) Connection to the Admin Center from the Host Vehicle (compactor and bulldozer) from must occur over 3 days (Friday, Monday, Tuesday)
- e) Connection must upload a combination of new landfill face details, and burial notifications

Results:

Percent (%) of uploading transactions within session: _____

Percent (%) of uploading errors within session: _____

5.0 Critical Shortfalls

5.1 **Defined:** If the MBGPS does not meet or comply with any of the following requirements, this shall constitute a material deficiency or failure and be deemed to be a "Critical Shortfall".

5.2 **Test Configuration:** The Contractor shall install the MBGPS on one compactor and one bulldozer, and set up the office computer (City's computer, City IT will assist as necessary) at the City landfill site. The Contractor shall also provide basic training for two operators and one admin person. For the Site tests, the City will use the MBGPS system in practical applications (such as road building, pad building, bank grading, asbestos burial, and garbage compaction on the active phase) to determine if the MBGPS is able to achieve the advertised functionality.

5.3 **Critical Shortfall Site Tests:**

- a) **Establishing design grades** - The measurement should be the difference in volume between the as built and the design (in other words, the sum of fill and cut that is different from the design). The allowable difference should be under 150 cubic meters for a 500 square meter area.
- b) **Establishing maximum compaction** - The measurement to be the difference in elevation between the point at which the MBGPS indicates maximum

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE C - SITE TESTS AND OTHER TESTS**

compaction and an additional pass with the compactor. The allowable average difference should be under 0.2 m.

- c) **Establishing compaction** - The City should have the ability to select the amount of compaction to be administered. The MBGPS should then be able to show when that amount of compaction has been achieved. If the City selects a compaction of under a certain amount per additional pass, then when the compactor makes an additional pass the average difference in elevation should be under that amount.
- d) **Establishing compaction passes** - The City should have the ability to select the number of passes to administer to a dumped load, and the MBGPS should then be able to show when those number of passes have been achieved. The measurement to be the difference between the actual count of real passes that were administered by the operator to a newly dumped load and the number of passes that the MBGPS shows. The difference should be one or less on average.
- e) **Realization of a newly dumped load** - The MBGPS should realize when a newly dumped load appears, because then the elevation increases instead of decreasing. At this point, the MBGPS should update the display information (i.e. start from scratch for compaction measurements). The measurement should be the distance driven before the MBGPS makes the realization. The allowable amount of distance is the length of the machine, or less, on average.
- f) **Marking a burial location** - The measurement to be time. The time to enter a burial location should be under a minute on average. Once the location is entered, the design office and other machines should be updated within an hour, as long as they are operating. The operator should be able to type in "a" for asbestos and "c" for CFIA (Canadian Food Inspection Agency), "m" for mattresses, and other characters for future uses as necessary. It should have the ability to specify the avoidance sphere radius for each burial location.
- g) **Starting up quickly** - The measurement to be time. The start up time should be under three minutes on average. The operator should enter his id upon start up.
- h) **Shutting Down** - The measurement to be time. The finishing up time should be under twenty seconds on average.
- i) **Communicating design changes from the office to the machines** - The measurement to be time. The design changes should be communicated within one hour, as long as the machines are operating.
- j) **Communicating as built data from the machines to the office** - The measurement should be time. The machines should update the office at least once a day.
- k) **Updating Existing Drawings** - The measurement should be the designer's time to update the existing drawings with the as built details. The as built details should include as built surfaces and as built burial locations. The designer should be able to take the existing terrain information drawing (i.e. the as built information before the MBGPS), and update it with the as built MBGPS information within two hours.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE C - SITE TESTS AND OTHER TESTS**

- l) MBGPS continuity** - The MBGPS should have continuity of service over the entire Landfill area, including the easternmost face, the compost area, and any valley anywhere in the Landfill area. If the MBGPS ever loses service, it should automatically reconnect so that the operator does not even notice that it ever lost service. The maximum amount of out of service time in an hour of operation should be under five minutes on average.
- 5.4 Remedies:** The occurrence of a Critical Shortfall during Site Tests shall constitute a material breach of the Contract, and the Contractor shall be required to redesign and/or undertake further customization of the MBGPS, and/or provide replacement components and/or software, to eliminate such deficiencies and failures. Failure to do so successfully will constitute a material breach and the City shall have the right to terminate the Contract and receive a refund of all monies paid to the Contractor.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE D - TRAINING

SCHEDULE D - TRAINING

1.0 General

Note: This draft training plan has been developed based on the requirements and specifications within the Machine Based Global Positioning System RFP # PS09032. The City reserves the right to amend the training plan requirements based upon the results of the Request for Proposal process.

Schedule D contains an outline of the training required for City employees and/or agents by the Contractor in the administration, use, basic troubleshooting and maintenance of the MBGPS, with an appropriate supply of manuals. The Contractor shall develop a final detailed Training plan containing detailed outlines and schedules, and user manuals for training, which after review and approval by the City, shall constitute the Training to be carried out.

Training sessions shall be broken down by user group as outlined below. Documentation requirements are contained in Schedule J.

2.0 Training Sessions

2.1 Host Vehicle Operators:

- a) Number of attendees - fifteen (15).
- b) Duration: one (1) day per session.
- c) Multiple sessions to allow all to be trained;
 - i) Location - Landfill meeting room/Landfill site; and
 - ii) Format:
 - a) Simple instructor led PowerPoint introduction;
 - b) Hands on by instructor led demonstrations & exercises with each attendee.
- d) Assumption:
 - i) Landfill operations will remain at full staffing capacity during training sessions, resulting in multiple sessions;
 - ii) Landfill will attempt to provide one bulldozer and one compactor for training purposes;
 - iii) Landfill will provide classroom setting and landfill site location for training sessions; and
 - iv) Contractor will outline several training options to allow for maximum training benefit with little impact to the landfill.
- e) Documentation:

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE D - TRAINING**

- i) Simple hands on exercises for vehicle training.

2.2 Administrative Users:

- a) Number of attendees - five (5).
- b) Duration: two to three (2-3) days per session.
- c) Single session.
- d) Location - Landfill meeting room/Landfill site.
- e) Format:
 - i) Instructor led information, demonstration, and laboratory sessions focusing on administrative functions; and
 - ii) Hands on laboratory sessions by each attendee followed by site review.
- f) Assumption:
 - i) Contractor will develop training materials that encompass all administrative functions and processes for inputting, updating and maintaining the system; which includes file management, data transfers, reporting.
- g) Documentation:
 - i) Presentation and demonstration of workflows and functionality; and
 - ii) Hands on exercises to provide practical experience with workflows and system functionality.

2.3 Administrators:

- a) Number of attendees - three (3).
- b) Duration: two (2) days per session.
- c) Single session.
- d) Location - Landfill meeting room/Landfill site.
- e) Format:
 - i) Instructor-led information, demonstration, and laboratory sessions focusing on vehicle and administration module troubleshooting and system access; and
 - ii) Hands on laboratory sessions by each attendee followed by site review.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE E - SUB-CONTRACTORS**

SCHEDULE E—SUB-CONTRACTORS

If the products and/or services proposed by the Proponent include the use of subcontractors, they must be identified below and the history and related experience of the organization and its personnel included in the Proposal. The Proponent will assume full responsibility for any services provided by any subcontractor. Sub-contractors must be approved by the City.

The Sub-Contractors shown below are the Sub-Contractors that the Proponent proposes to use to carry out the Requirements. The City expects that the Proponent will engage the listed Sub-Contractors and no others in their stead unless previously authorized in writing by the City.

If no Sub-Contractors will be used, indicate "Not Applicable".

Company Name, Address	Contact Name and Telephone Number	Previous Related Experience and Area of Responsibility for this Project

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE F - CITY CONTRIBUTIONS

SCHEDULE F— CITY CONTRIBUTIONS

1.0 General

Note: The following are the only contributions that the City proposes to provide to assist in the implementation of the Machine Based Global Positioning System (“City Contributions”) and have been developed based on certain assumptions made in the Machine Based Global Positioning System RFP # PS09032. The City reserves the right to amend the City Contributions based upon the results of the Request for Proposal process.

1.1 City Contributions:

The City will provide:

- a) Access to MV Real Time GPS Service - RTK Network (if required).
- b) Access to Host Vehicles (Bulldozers & Compactors) for installation and testing purposes.
- c) Access to Admin Center.
- d) Information regarding:
 - i) Network configuration;
 - ii) Security parameters; and
 - iii) User parameters.
- e) Landfill Site design drawings (as per requirements specifications).
- f) System administration components (as per the Proponent’s specifications).
- g) Administrative Servers (for development/test/production environments).
 - i) Database: and
 - ii) Windows Domain Network.
- h) Administrative console components (desktop, City network communications).

1.2 Contractor Contributions:

The Contractor will provide all other aspects of the MBGPS including but not limited to the following:

- a) Information regarding hardware requirements for the System admin components;
- b) Administration software comprising the System admin components:

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE F - CITY CONTRIBUTIONS

- i) Administration software configuration;
 - ii) Administration software installation; and
 - iii) Administration console testing.
- c) GPS Communications:
- i) Providing all components; and
 - ii) Providing all installation and configuration services.
- d) Wireless network/radio communication:
- i) Providing all components;
 - ii) Providing details to the City in regards to any licensing requirements for communication within the proposed System; and
 - iii) Providing all installation and configuration services.
- e) Software included in the Vehicle Components:
- i) Host Vehicle software configuration;
 - ii) Host Vehicle software installation; and
 - iii) Host Vehicle software testing.
- f) Hardware included in the vehicle components:
- i) Providing all parts including mounting brackets; and
 - ii) Providing all installation and configuration services.
- g) Documentation (further details in regards to documentation to be provided in Schedule J):
- i) Off site testing and configuration;
 - ii) On site testing and configuration;
 - iii) Host Vehicle User Guide; and
 - iv) Administration User Guide.
- h) Training Details:
- i) Host Vehicle Operator training:
 - a) Documentation; and
 - b) Implementation.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE F - CITY CONTRIBUTIONS

- ii) Administrative User training:
 - a) Documentation; and
 - b) Implementation.
- iii) Administrator training:
 - a) Documentation; and
 - b) Implementation.
- i) Project Management:
 - i) Documentation (including but not limited to the following):
 - a) Project Schedule;
 - b) Project Communication Plan; and
 - c) Project Change Management Plan.
 - ii) Project meeting coordination;
 - iii) Project updates; and
 - iv) Project adherence to the deliverables, budget, and schedule.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE G - SUPPORT SERVICES AND SERVICE LEVELS**

SCHEDULE G—SUPPORT SERVICES AND SERVICE LEVELS

Note: The Support Services and Service Levels, as described below, have been developed based on certain assumptions made in the Machine Based Global Positioning System RFP # PS09032. The City reserves the right to amend the Support Services and Service Levels based upon the results of the Request for Proposal process.

1.0 General

- a) The Contractor will provide all-inclusive Support Services that will address scheduled and non scheduled maintenance and service requirements for the MBGPS.
- b) The Support Services will include the supply of all spare parts, materials, components, supplies, tools, and labour as needed for scheduled maintenance of both the System admin components and the vehicle components.
- c) The Contractor will also perform any repairs or service work as needed due to unscheduled breakdowns or malfunctions of the MBGPS as required. The work will include the supply of spare parts, materials, components, supplies, tools, and labour as needed for the unscheduled service work.
- d) All required major and minor repairs and support activities are included in the Support Services for both the System admin components and the vehicle components.
- e) As part of the scheduled and preventative Support Services the Contractor shall provide all new releases of software, firmware and related documentation, both major and minor, that provide new or enhanced features or functionality which will improve the City's MBGPS, including enhancements and upgrades, as are developed and issued by the Contractor for the Standard MBGPS, in a form readily available for installing and implementing in the MBGPS.
- f) As part of the remedial Support Services, the Contractor shall promptly develop, supply, install and implement bug fixes and other error corrections or work-arounds as required to eliminate or address defects in the software and firmware as necessary to allow the City near continuous use of the MBGPS for its normal operational requirements.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE G— SUPPORT SERVICES AND SERVICE LEVELS

2.0 Unscheduled Support Services

- a) The Contractor will respond by phone to the City's unscheduled Support Services requests within two (2) hours of receiving the request.

3.0 Failure Classes and Required Response

- a) Failure of components, errors in software or firmware and all other malfunctions of the MBGPS will be classed based on the severity of their impact on the City's ability to use the MBGPS for its normal operational requirements.
- b) Table 1 describes the failure classes.
- c) Table 1 is intended to describe the Contractor's service response times required in the event of failures, errors or other malfunctions of the MBGPS and to classify the failures as High, Medium, and Low severity.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE G— SUPPORT SERVICES AND SERVICE LEVELS**

Table 1. Unscheduled Failure Classes and Required Response

Failure Class	Severity of Failure	Impact	Response Time	Corrective Plan	Required Outcome
1	High	<p>MBGPS is inoperable or is incapable of one or more of the following issues ("Core Areas"):</p> <ul style="list-style-type: none"> - displaying information to vehicle operators - capturing X/Y/Z coordinates of vehicles - marking burials - notification of security and proximity alerts - incapable of acquiring/storing recent vehicle information (same day) - incapable of updating design plans both at the Host Vehicle or Admin Centre. 	Service person to contact City representatives within 2 hours of request by the City.	Diagnose problem and establish plan to correct failure within 12 hours.	Return to operation within 3 calendar days including weekends. Return to operation may be extended if repair requires a replacement part/software fix with an actual delivery period of less than 24 hours.
2	Medium	<p>MBGPS is capable of operating in all Core Areas but at reduced functionality as well as:</p> <ul style="list-style-type: none"> - incapable of allowing administrative users to query historical information 	Service person to contact City representatives within 2 hours of the City's request	Establish plan to correct failure within 24 hours	Return to normal operation within 5 calendar days including weekends. Return to operation may be extended if repair requires a replacement part/software fix with an actual delivery period of less than 48 hours.
3	Low	MBGPS is capable of normal operation but non-Core Area specific subsystems may be inoperable.	Service person to contact City representatives within 2 hours of the City's request	Establish plan to correct failure within 48 hours	Return to normal operation within 7 calendar days including weekends. Return to operation may be extended if repair requires a replacement part/software fix with an actual delivery period of less than 72 hours.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE G - SUPPORT SERVICES AND SERVICE LEVELS

4.0 Response Times Not Met- Required Actions

4.1 Should the Contractor's service personnel be unable to respond in the time frames indicated in item 1.4 above, Table 2 describes the actions to be taken by the Contractor and the City.

Table 2. Response Times Not Met - Required Actions (all costs for account of Contractor)

Failure Class	Response Time Exceeded	Corrective Plan Time Exceeded	Return to Service Time Exceeded
1, 2	the City will contact service manager to expedite response	the City will request factory service rep to come to site to support problem diagnosis.	The Contractor will pay for the time for a technician to use the Trimble unit and transfer the data to the MBGPS when functional
3	the City will contact field service representative to expedite response	the City will request local representative consult with factory service rep to assist with problem diagnosis.	The Contractor will pay for any costs to the City resulting from non-Core Area systems being down.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE H - KEY PERSONNEL**

SCHEDULE H—KEY PERSONNEL

1.0 Key Personnel

- 1.1 Identify the key personnel to be assigned to this project, setting out their names, responsibilities and relevant experience and training on the proposed solution. Include the names of the projects on which the personnel have been a primary resource.

Name and Location	Title and Responsibilities	Experience and Training

- 1.2 Resumes should be provided in an appendix for all key resources.
- 1.3 The Proponent(s) must ensure that there is continuity of the key personnel over the duration of the project. Any changes must be approved by the City's project manager. Where key personnel are changed, the Proponent(s) will be required to ensure a smooth transition between personnel and cover all transition costs.

2.0 Additional Information

- 2.1 In addition, the Proponent should provide:
- a) its policy relating to ensuring proposed project resources, once assigned and mobilized to the project, are not reassigned to other proponent projects;
 - b) its policy relating to the replacement of resources should that become necessary;
 - c) a description of staffing levels and mix in BC, Canada and USA locations for the Proponent's organization;
 - d) the total staff the company employs; and
 - e) the ratio of customer support staff to installed solutions.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE I - WORK PLAN TIME ESTIMATES**

SCHEDULE I—WORK PLAN TIME ESTIMATES

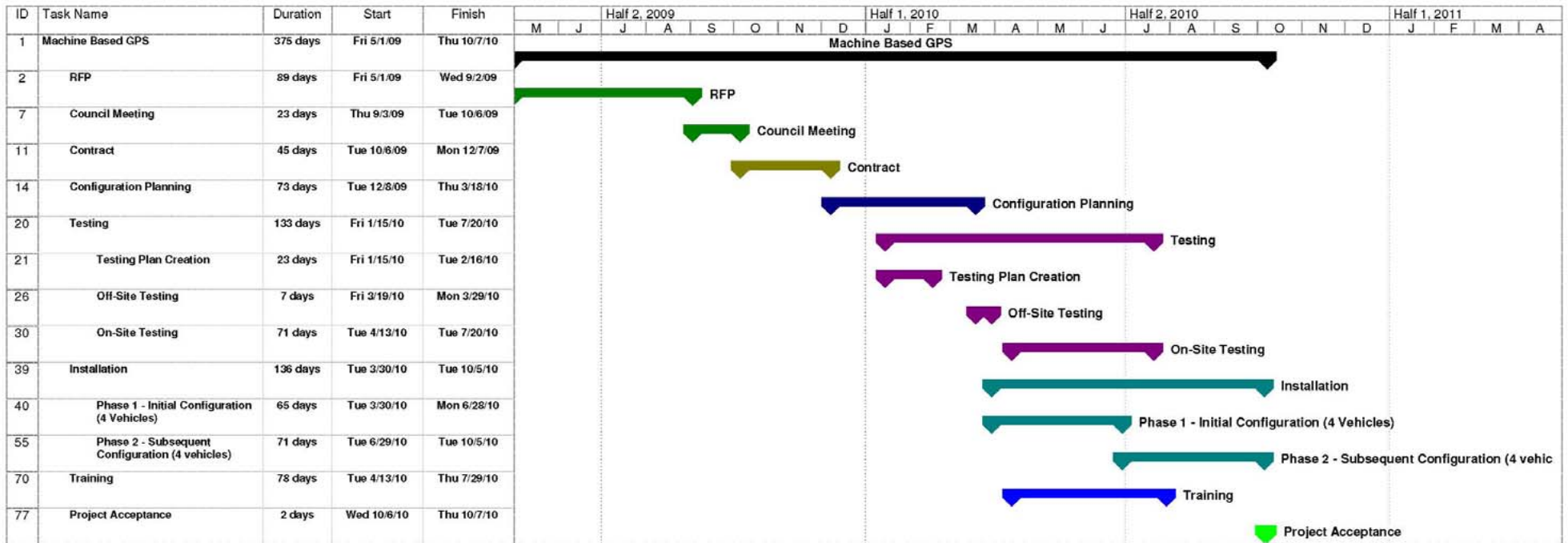
Note: The “Work Plan Time Estimates” have been developed based on certain assumptions made in the Machine Based Global Positioning System RFP # PS09032. The City reserves the right to amend the Support Services and Service Levels based upon the results of the Request for Proposal process.

Using the following table and project schedule as examples, please submit an estimated project schedule based on the requirements and your previous project experience.

Project Phase	Details	Duration	Date	Responsibility	Milestone
Customization	Customization Acceptance			City	Yes
Testing	Testing Plan Acceptance			City	Yes
	Off-Site Testing Acceptance			City	Yes
	Phase 1 -On Site Testing Acceptance			City	Yes
	Phase 2 - On Site Testing Acceptance			City	Yes
Installation	Phase 1 Acceptance			City	Yes
	Phase 2 Acceptance			City	Yes
Training	Training			City	Yes
Project Acceptance	Project Acceptance			City	Yes

Please use a Gantt chart to show the above phases.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE I- WORK PLAN TIME ESTIMATES**



REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE J - DOCUMENTATION

SCHEDULE J—DOCUMENTATION

1.0 GENERAL

- a) This draft outline of the documentation has been developed based on the requirements and specifications within the Machine Based Global Positioning System RFP # PS09032. The City reserves the right to amend the documentation requirements based upon the results of the Request for Proposal process.
- b) Schedule J contains the documentation requirements for the MBGPS, including system administration, user operation and basic troubleshooting and maintenance manuals, training materials, and all other documentation to be provided by the Contractor as deliverables. The Contractor shall develop final documentation containing detailed user manuals, training materials, and other documentation, which after review and approval by the City, shall constitute the Documentation to be prepared.
- c) The documentation requirements should include at a minimum:

Host Vehicle Operators:

- i) Training materials, including copy of PowerPoint introductory presentation, step by step instructions for hands on exercises; and
- ii) User Operation Manual with basic troubleshooting, namely: six (6) Bulldozer GPS user operating manuals; three (3) Compactor GPS user operating manuals; two (2) Bulldozer GPS repair manuals; two (2) Compactor GPS repair manuals; (electronic copies on CDs are acceptable and preferred except in the case of the vehicle user operation manuals because those need to go into the machines).

Administrative Users:

- i) Training materials, with step by step instructions for the demonstration and laboratory sessions focusing on administrative functions; and
- ii) User Operation Manual with basic troubleshooting, namely: one (1) office electrical wiring schematic; one (1) office/design/administrative installation/initial setup manual; one (1) office/design/administrative user operating manual; (electronic copies on CDs are acceptable and preferred).

Administrators:

- i) Training materials, with step by step instructions for the demonstration, and laboratory sessions focusing on vehicle and administration module troubleshooting and system access; and
- ii) User Operation and Maintenance Manual with basic troubleshooting.

Vehicle Hardware components:

- i) Manufacturer instructions and other information;
- ii) Warranty information;
- iii) Reports regarding any vehicle customizations with regards to component mounting and wiring;

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE J—DOCUMENTATION**

- iv) Two (2) Bulldozer GPS parts manuals; two (2) Compactor GPS parts manuals; two (2) Bulldozer GPS electrical wiring schematic; two (2) Compactor GPS electrical wiring schematic; (electronic copies on CDs are acceptable and preferred); and
- v) One (1) copy of manuals for any hardware that is being supplied that comes with such hardware as part of the standard packaging.

System Administrative components:

- i) Server specifications (minimum & recommended);
- ii) Network specifications (minimum & recommended);
- iii) Database specifications (minimum & recommended);
- iv) Client interface requirements;
- v) High level network diagram of data flow within the system; and
- vi) One (1) copy of manuals for any hardware comprising the System Administrative components that comes with such hardware as part of the standard packaging.

Software components:

- i) Installation and update instructions.

Testing (Offsite & Onsite):

- i) Testing platform specifications;
- ii) Testing specifications; and
- iii) Testing results.

Project Management:

- i) Project Schedule (and updates);
- ii) Project Deliverables and Milestones;
- iii) Project Communication Plan; and
- iv) Project Change Management Plan.

System:

- i) One (1) copy of any manuals that would normally be supplied with such a System, in addition to all those listed above;
- ii) One (1) list of recommended System spare parts for the Landfill's equipment stock room;
- iii) Each documentation component should be provided to the City in digital format to allow the unlimited reproduction of all documentation (except for the vehicle user operation manuals that need to go into the machines, those need

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE J—DOCUMENTATION**

to be hard copies) for City internal use. Documentation should be provided in metric units; and

- iv) PowerPoint Training presentation for Host Vehicle operators shall include but not be limited to the following:
 - a) Overview of system structure and components, maximizing the use of graphics wherever possible;
 - b) Description of system functionality;
 - c) Role of the Host Vehicle operator;
 - d) Simple description of data transfer; and
 - e) Screen shots with labels to identify components.

- v) Training materials shall include but not be limited to the following:
 - a) Table of Contents/Index;
 - b) System schematic identifying system components and data transfer;
 - c) Step by step instructions for demonstrations and hands on exercises;
 - d) Screen shots with labels to identify components;
 - e) Glossary of Terms; and
 - f) One (1) copy of all training presentations and activities/schedules (electronic copies on CDs are acceptable and preferred).

- vi) User Operation and Basic Troubleshooting and Maintenance Manuals Content shall include but not be limited to the following:
 - a) Table of Contents/Index;
 - b) FAQs;
 - c) System schematic identifying system components and data transfer;
 - d) Step by step instructions for administration, use, basic troubleshooting and maintenance;
 - e) Screen shots with labels to identify components;
 - f) Glossary of Terms; and
 - g) Contact information for support.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE K - DEVIATIONS AND VARIATIONS

SCHEDULE K - DEVIATIONS AND VARIATIONS

Further to Section 2.0 [Compliance] of Proposal Form [Part D], Proponents are to use this Schedule to detail any deviations and/or variations from the terms and conditions set out in this RFP and, if applicable, detail proposed amendments. Where the Proponent is proposing the use of contract language/clauses other than set out in the Form of Agreement, such clauses are to be attached to this Schedule K. The City will assume such clauses are in addition to those in the Form of Agreement unless otherwise indicated by the Proponent.

**REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE L - DELIVERABLES**

SCHEDULE L– DELIVERABLES

1.0 GENERAL

- 1.1 This preliminary listing of deliverables has been developed based on the requirements and specifications within the Machine Based Global Positioning System RFP # PS09032. The City reserves the right to amend the deliverables requirements based upon the results of the Request for Proposal process.
- 1.2 Schedule L contains only an estimate of the minimum deliverables which have been identified in Schedule I. The Contractor shall develop final documentation containing detailed deliverables and milestone expectations to be specified in the Project Schedule, which after review and approval by the City, shall constitute the Project Milestones and Deliverables of the project. Any omission or mis-description of a deliverable by the City in this Schedule L shall not eliminate or reduce the obligations of the Proponent to supply a Machine Based Global Positioning System that meets the requirements of the RFP as reflected in the Contract entered into with the City.
- a) Seven (7) GPS units, installed on the City Landfill machines (including all mounting brackets, wiring harnesses, and other necessary components).
 - b) One (1) GPS communication station installed in the City technical trailer offices at the Landfill.
 - c) One (1) City supplied computer set up with the necessary software for System design/administration.
 - d) As many repeaters as are necessary throughout the Landfill in order to make the System functional (with antenna and other necessary peripherals).
 - e) One (1) software installation CD.
 - f) One (1) hardware cable for communicating between the office administration computer and the machine GPS hardware (used to reset, update or troubleshoot the machine GPS software manually in lieu of using wireless communication).
 - g) Documentation as set out in Schedule J.

REQUEST FOR PROPOSAL NO. PS09032
MACHINE BASED GLOBAL POSITIONING SYSTEM
SCHEDULE M - PRELIMINARY SITE SPECIFIC SAFETY AND HEALTH PLAN

SCHEDULE M - PRELIMINARY SITE SPECIFIC SAFETY AND HEALTH PLAN

The following three (3) documents, which have been provided to the Proponent, constitute the Safety and Health Plan at the Landfill. The City reserves the right to amend the Safety and Health Plan as required in its sole discretion.

- a) Site Hazard Identification List
- b) Site Safety Orientation/Agreement
- c) Safety Awareness Sheet/Landfill Gas

MACHINE BASED GLOBAL POSITIONING SYSTEM AGREEMENT

BETWEEN

CITY OF VANCOUVER

AND

____, 2009

MACHINE BASED GLOBAL POSITIONING SYSTEM AGREEMENT

THIS AGREEMENT (the "Agreement") entered into as of the _____ day of _____, 2009 (the "Effective Date")

BETWEEN:

CITY OF VANCOUVER
453 West 12th Avenue
Vancouver, British Columbia
V5Y 1V4

(the "City")

AND:

(the "Contractor")

BACKGROUND:

- A. The City intends to acquire a machine based global positioning system customized for its particular landfill design grade applications (" Customized MBGPS"), to be installed on its bulldozer and compactor machines ("Host Vehicles") and at an administration location ("Admin Center") at its landfill site in Delta, British Columbia ("Landfill Site"), as an integral part of its program to use GPS technology for measuring design grades at the Landfill Site ("GPS Mapping Project").
- B. The Contractor supplies machine based global positioning systems for installation on bulldozer and compactor machines for landfill design grade applications ("Standard MBGPS") and has the capability of modifying and adapting its Standard MBGPS to meet the City's Customized MBGPS requirements.
- C. The City issued a Request for Proposals ("RFP") on _____, 2009 requesting proposals for the supply of a Customized MBGPS, with associated training and maintenance, to be installed at the Landfill Site to interface and function with the existing GPS service provided by Metro Vancouver ("RTK Network").
- D. In response to the RFP, the Contractor submitted a Proposal ("Proposal") to the City dated _____, 2009 to customize its Standard MBGPS and supply the resulting Customized MBGPS to City to meets its Landfill Site requirements.
- E. The City has selected the Contractor to supply, install and maintain the Customized MBGPS at the Admin Center and on the Host Vehicles, for operation with the RTK Network, to achieve its GPS Mapping Project objectives, as described in the RFP, the Proposal and this Agreement.

NOW THEREFORE, in consideration of the mutual covenants and promises made by the parties and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1.0 INTERPRETATION

1.1 In this Agreement the following words and terms, unless the context otherwise requires, have the meanings set out below:

- (a) **"Affiliated Organizations"** means any legal entity or unincorporated association falling within any of the following categories:
 - (i) non-profit corporations or unincorporated associations to whom substantial funding or subsidies are provided by the City,
 - (ii) any affiliate of the City which provides services authorized or required by the *Vancouver Charter* of British Columbia, and
 - (iii) governmental authorities to whom the City is required to provide administrative services as a result of provincial legislation mandating or authorizing the provision of such services.
- (b) **"Admin Center"** means the location at the Landfill Site at which the Admin Components will be installed.
- (c) **"Admin Components"** means the components of the Customized MBGPS providing an administrative interface for controlling and managing the Customized MBGPS, and all other components of the Customized MBGPS which are not Vehicle Components, as described in the MBGPS Requirements and Detailed MBGPS Specifications .
- (d) **"Agreement"** means the agreement between the City and the Contractor regarding the supply and implementation of the Customized MBGPS, as set out in the Contract Documents.
- (e) **"Applicable Laws"** means all statutes, regulations, by-laws, codes, rules, notices, orders, directives, standards and requirements of every competent federal, provincial, regional, municipal and other statutory authority applicable to the Contractor, any sub-contractor and the Work, all as may be in force from time to time;
- (f) **"Business Day"** means a weekday (Monday to Friday) that is not a "holiday" as defined in the *Interpretation Act* of British Columbia.
- (g) **"City"** or **"COV"** means the City of Vancouver, a municipal corporation continued pursuant to the *Vancouver Charter*, and having an office at 453 West 12th Avenue, Vancouver, British Columbia, Canada, V5Y 1V4.
- (h) **"City Contributions"** means the only equipment, resources, services and information that the City is obligated to provide or make available to assist the Contractor in delivering, installing, testing and integrating the Customized MBGPS with the RTK Network, as listed in Schedule F.
- (i) **"City's Project Manager"** means one or more of the City's employees, or delegates, who are authorized by the City in writing to deal with the Contractor on behalf of the City in connection with the Work undertaken by the Contractor, or to make decisions in connection with this Agreement, as initially designated pursuant to Section 25.1.

- (j) **"Confidential Information"** has the meaning set out in Section 31.3.
- (k) **"Contract Documents"** means all documents setting out the Agreement, including all Sections herein, all attached Schedules, all documents referenced and incorporated therein, and any amendments or addenda agreed to in writing by the parties.
- (l) **"Contract Price"** means the sum of all the fees and charges payable by the City to the Contractor for the Customized MBGPS and the rest of the Work, as set out in Schedule K, excluding fees and charges for Support Services.
- (m) **"Contractor"** means _____, incorporated pursuant to _____, and having an office at _____.
- (n) **"Contractor Intellectual Property"** means the proprietary know-how, methodologies, technology, documentation, and any other information or data, developed or owned by, or licensed to, the Contractor prior to undertaking the Work under this Agreement, and all corrections, improvements and enhancements thereto, but excluding those developed specifically for the City as a Deliverable under this Agreement.
- (o) **"Contractor Intellectual Property Rights"** means the Intellectual Property Rights of the Contractor in the Contractor Intellectual Property.
- (p) **"Contractor's Project Manager"** means the Contractor's employee who is authorized by the Contractor in writing to deal with the City on behalf of the Contractor in connection with the Work undertaken by the Contractor, or to make decisions in connection with this Agreement, as initially designated in pursuant to Section 25.2.
- (q) **"Critical Shortfalls"** means material deficiencies in or failures of the Customized MBGPS, as set out in Schedule C, which require the Contractor to redesign and/or undertake further Customization of the Customized MBGPS and/or provide replacement components and/or software to eliminate such deficiencies and failures.
- (r) **"Customization"** means all the Work required to be undertaken by the Contractor to modify and adapt its Standard MBGPS to produce the Customized MBGPS, including the Work necessary;
- (i) to properly install the Vehicle Components on the Host Vehicles, and;
- (ii) to successfully integrate the Customized MBGPS with the RTK Network.
- (s) **"Customized MBGPS"** means a Standard MBGPS which has undergone Customization resulting in the development of a machine based global positioning system meeting the MBGPS Requirements and the Detailed MBGPS Specifications, which is suitable for use by the City in its GPS Mapping Project at the Landfill Site.
- (t) **"Cut-Over"** means the City's commencement of use of the Customized MBGPS with the RTK Network for its normal operational purposes at the Landfill Site, after successful completion of the Site Tests.

- (u) **“Default Security”** means the bonds, letters of credit or other form of security provided by Contractor to the City as security for the Contractor’s due performance of the Work, as required by Section 26, in form and substance as set out in Schedule H.
- (v) **“Deliverables”** means the Vehicle Components, Admin Components, Documentation, and all other components, spares, ancillary equipment, resources and information required by or for the Customized MBGPS, to be delivered to the City by the Contractor, as further described in the MBGPS Requirements and Detailed MBGPS Specifications.
- (w) **“Detailed MBGPS Specifications”** means the detailed functional, operating and other specifications and designs for the Customized MBGPS, based on the MBGPS Requirements, which are to be developed by the Contractor and approved by the City in accordance with this Agreement.
- (x) **“Documentation”** means the documentation for the Customized MBGPS, including system administration, user operation and basic troubleshooting and maintenance manuals, Training materials, and all other documentation to be provided by the Contractor as Deliverables, which are listed in Schedule J.
- (y) **“Effective Date”** means the date on which this Agreement becomes effective as first set out above.
- (z) **“GPS Mapping Project”** means the City’s program to use GPS technology for achieving design grades at the Landfill Site in conjunction with the RTK Network.
- (aa) **“GST”** means the goods and services tax administered under the *Excise Tax Act (Canada)* and any successor tax or levy therefore in force from time-to-time.
- (bb) **“Host Vehicles”** means seven bulldozer or compactor machines at the Landfill Site as listed in the MBGPS Requirements, on which the Vehicle Components will be installed as part of the Customized MBGPS.
- (cc) **“Intellectual Property Rights”** means any and all worldwide proprietary rights under copyright law, patent law, industrial design law, and trade secret law, that provide rights in ideas, concepts, inventions, works, know-how or any other information, or the expression or use thereof, and including all past, present, and future causes of action and claims relating to any of the foregoing, and including the right to file applications for registration of or for obtaining any of the foregoing anywhere in the world.
- (dd) **“Landfill Site”** means the site of the landfill, located at 5400 72nd Street, Delta, British Columbia, operated by the City on behalf of itself and various other municipalities as a site for receiving municipal solid waste, at which the GPS Mapping Project is implemented and where the Customized MBGPS will be installed.
- (ee) **“MBGPS Requirements”** means the functional, operating and other requirements for the Customized MBGPS as set out at a high level in the Request for Proposal in Schedule A, as may be mutually amended by the parties in writing.
- (ff) **“Metro Vancouver”** means the Greater Vancouver Regional District, comprised

of 22 member municipalities to which it provides certain common services.

- (gg) **“Project Team Members”** means the key Contractor personnel that have been designated to carry out the Work.
- (hh) **“Proposal”** means the proposal submitted by the Contractor in response to the RFP on the ____ day of _____, 2009 to supply the Customized MBGPS to the City, attached as Schedule B.
- (ii) **“PST”** means British Columbia provincial sales tax administered under the *Social Service Tax Act* and any successor tax or levy therefore in force from time-to-time.
- (jj) **“Request for Proposals”** or **“RFP”** means the request for proposals issued by the City on the ____ day of _____, 2009 for the supply, customization, installation, training, maintenance and support of a Customized MBGPS at the Landfill Site as part of the City’s GPS Mapping Project, and attached as Schedule A.
- (kk) **“RTK Network”** means the network of five active control point GPS base stations supplying a real time kinematic positioning service providing GPS location information, established in partnership by Metro Vancouver and the Government of British Columbia Crown Registry and Geographic Base Branch
- (ll) **“Services”** means all of the services that the Contractor is to provide as part of the Work, including Customization, Training, Tests and Support Services.
- (mm) **“Site Tests”** means the on-site tests of the Customized MBGPS to be carried out at the Landfill Site by the Contractor, as described in Schedule C.
- (nn) **“Standard MBGPS”** means a machine based global positioning system for installation on bulldozer and compactor machines for landfill design grade applications normally supplied by Contractor, as described in the Proposal.
- (oo) **“Support Services”** means the preventative and remedial maintenance and support of the Customized MBGPS provided by the Contractor commencing at the end of the Warranty Period, and described in Schedule G;
- (pp) **“Tests”** means all tests of the Customized MBGPS to be carried out by the Contractor, including the shop tests and Site Tests, as described or referenced in Schedule C.
- (qq) **“Training”** means the instruction and training of City employees and/or agents by the Contractor in the administration, use, basic troubleshooting and maintenance of the Customized MBGPS, with an appropriate supply of manuals, as described in Schedule D.
- (rr) **“Vehicle Components”** means the components of the Customized MBGPS to be installed on the Host Vehicles, as described in the MBGPS Requirements and Detailed MBGPS Specifications.
- (ss) **“Warranty”** means the Contractor’s warranties for the Customized MBGPS as described in Section 13.
- (tt) **“Warranty Period”** means the period during which the Warranty is applicable,

as specified in Section 13.

- (uu) “Work” means all the Services and Deliverables to be provided by the Contractor to the City in connection with the supply of the Customized MBGPS.
- (vv) “Work Schedule” means the schedule of dates and times for the Work to be performed by the Contractor, as set out in Schedule E.
- (ww) “WorkSafeBC” means the Workers' Compensation Board of BC, a provincial Crown corporation created pursuant to the *Workers Compensation Act* (British Columbia).
- (xx) “WorkSafe BC OH&S Regulation” means the *Occupational Health & Safety Regulation* (British Columbia Regulation 296/97, as amended from time to time), enacted pursuant to the *Workers Compensation Act* (British Columbia),

1.2 The provisions of this Agreement as set out in the Contract Documents are complementary and what is called for by one will be as binding as if called for by all, provided that:

- (a) in the event of any conflict or inconsistency between the Sections of this Agreement and any Schedules, then the Sections of this Agreement will take precedence and govern; and
- (b) in the event of any conflict or inconsistency between Schedule B (Proposal) and any other Schedule, then such other Schedule will take precedence and govern over Schedule B.

1.3 The Schedules to this Agreement are comprised of the following:

Schedule A	Request for Proposal
Schedule B	Proposal
Schedule C	Shop Tests and Site Tests
Schedule D	Training
Schedule E	Work Schedule
Schedule F	City Contributions
Schedule G	Support Services and Service Levels
Schedule H	Default Security
Schedule I	Form of Certificate of Insurance
Schedule J	Documentation
Schedule K	Contract Price and Payment Schedule

1.4 The Recitals and Section headings used in this Agreement are for convenience of reference only and do not affect its interpretation.

1.5 In this Agreement, words importing the singular include the plural and vice versa, and words importing gender include all genders

2.0 SCOPE OF WORK

2.1 The Contractor will be responsible for the complete scope of the Work as set out in the MBGPS Requirements and the Detailed MBGPS Specifications.

2.2 As part of the Work, the Contractor will undertake and provide the Services for the

City, as further set out in the Proposal and this Agreement, including but not limited to:

- (a) Preparing Detailed MBGPS Specifications;
- (b) Customization of the Contractor's Standard MBGPS;
- (c) Installation of the Customized MBGPS;
- (d) Integration of the Customized MBGPS with the RTK Network;
- (e) Testing of the Customized MBGPS;
- (f) Remediating all Critical Shortfalls;
- (g) Implementing Cut-Over;
- (h) Training; and
- (i) Support Services.

2.3 As part of the Work, the Contractor will supply the following Deliverables to the City, as further set out in the Proposal and this Agreement, including but not limited to:

- (a) Detailed MBGPS Specifications;
- (b) Vehicle Components;
- (c) Admin Components; and
- (d) Documentation.

3.0 PERFORMANCE OF WORK

3.1 The Contractor will provide and be fully responsible for the Work described in this Agreement.

3.2 The Contractor will during the term of this Agreement be fully responsible for:

- (a) taking all steps required in placing, effecting and maintaining insurance and providing evidence of insurance as set out in Section 22;
- (b) taking all steps required in placing, effecting, maintaining and delivering the Default Security to the City, as described in Schedule H; and
- (c) utilizing a Project Team mutually agreed upon in accordance with Section 16.

3.3 The Contractor represents and warrants to the City that the Contractor possesses the necessary skills, knowledge, qualifications and experience to perform and deliver the Work to the reasonable satisfaction of the City.

3.4 The Contractor will perform the Work:

- (a) with that degree of care, skill and diligence normally applied by professionals in the performance of Work of a similar nature and magnitude to that

contemplated by this Agreement at the time and place the Work is performed or delivered;

- (b) in accordance with sound current professional practices and design standards; and
- (c) in conformance with any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, and courts having jurisdiction applicable at the time and place the Work is performed or delivered.

3.5 The Contractor will commence the Work promptly and will use every reasonable means to carry out the Work in such a manner so as to fulfil the completion dates:

- (a) set out in this Agreement;
- (b) the Work Schedule; and
- (c) where no such dates are set out in this Agreement or Work Schedule, such completion dates as are reasonably specified from time to time by the City.

3.6 The Contractor agrees that in the event the Contractor does not complete the Work to the reasonable satisfaction of the City during the term of this Agreement, the Contractor will upon the City's request spend such additional time, at its own expense, as is reasonably required to complete the Work.

4.0 WORK SCHEDULE

4.1 Schedule E refers to a preliminary Work Schedule for the Work to be performed by the Contractor. The Contractor shall jointly with the City develop a revised and/or more detailed schedule for the Work, which shall thereupon be deemed to replace the preliminary Work Schedule. The Services, Deliverables and all other Work shall be undertaken and completed by the Contractor in accordance with the dates set out in the Work Schedule. The Work Schedule shall not be amended without the mutual agreement of both parties.

5.0 DETAILED MBGPS SPECIFICATIONS

5.1 The RFP contains the MBGPS Requirements, consisting of high level specifications and designs for the Customized MBGPS. As part of the supply of Services under this Agreement, the Contractor shall as an initial Work activity, develop and provide to the City as a Deliverable, the Detailed MBGPS Specifications for the Customized MBGPS. The City's Project Manager shall review the Detailed MBGPS Specifications, request any required clarification from the Contractor and identify any deficiencies or non-conformances in the Detailed MBGPS Specifications. The Contractor shall promptly provide the requested clarifying information and correct any deficiencies or non-conformances in the Detailed MBGPS Specifications and resubmit them to the City for further review by the City's Project Manager. The Contractor shall not start Customization or supply or install any part of the Customized MBGPS, or complete and finalize the Detailed MBGPS Specifications, until the City's Project Manager has advised in writing that the City is satisfied with the Contractor's response to its requests for information and correction of all deficiencies and non-conformances in the Detailed MBGPS Specifications, in which event the Detailed MBGPS Specifications shall supercede or supplement as appropriate, the MBGPS Requirements.

- 5.2 The form, details, designs and other content of the Detailed MBGPS Specifications must conform to the high level MBGPS Requirements, and be sufficient to allow the City to make appropriate plans and decisions concerning the City Contributions, integration with the RTK Network, and use of the Customized MBGPS.
- 5.3 If the Contractor desires to change or otherwise amend any Detailed MBGPS Specifications, the Contractor shall submit the request to the City's Project Manager together with a detailed explanation of the need for such changes or amendments, and the impact on the cost of the Customized MBGPS, the Work Schedule and the Contract Price. If the City's Project Manager approves such changes or amendments then the Detailed MBGPS Specifications, Work Schedule and Contract Price will be amended as approved, provided that the Contract Price will not be adjusted if the need for such changes or amendments to the Detailed MBGPS Specifications was due to defects in the specifications and designs originally prepared by the Contractor.
- 5.4 The Customized MBGPS shall comply with all applicable government and industry standards relating to radio communications as set out in the MBGPS Requirements.
- 5.5 All electrical components in the Customized MBGPS shall comply with all applicable government and industry electrical standards as set out in the MBGPS Requirements.

6.0 TESTS DEVELOPMENT AND OFF-SITE TESTS

- 6.1 Schedule C contains a preliminary description of and/or guidelines for the test specifications and procedures to be used for the Site Tests and the other Tests of the Customized MBGPS. The Contractor shall develop final detailed Test specifications and procedures for review and approval by the City. The City's Project Manager shall review the detailed Test specifications and procedures for the Tests and shall identify any deficiencies in either the specifications or procedures. The Contractor shall promptly revise the Test specifications and procedures and resubmit the revised Test specifications and procedures to the City for further review by the City's Project Manager. The Contractor shall not start any Tests until after the City's Project Manager has advised in writing that all deficiencies in the Test specifications and procedures have been adequately corrected or addressed by the Contractor, at which time the approved revised Test specifications and procedures shall be substituted for and replace the prior Test specifications and procedures. Acceptance of the revised Test specifications and procedures by the City's Project Manager shall not eliminate or amend any of the MBGPS Requirements or the Detailed MBGPS Specifications.
- 6.2 During the development of the Detailed MBGPS Specifications, the Contractor shall undertake at its premises the appropriate shop Tests of its Standard MBGPS to determine the detailed Customization requirements necessary to create the Customized MBGPS. The City's Project Manager shall have the right, but not the obligation, to attend such Tests, and shall receive copies of all results from such Tests.

7.0 CUSTOMIZATION AND PROGRAMMING

- 7.1 As part of the supply of Services under this Agreement, the Contractor shall undertake all required Customization (including software programming) necessary to develop the Customized MBGPS, and shall provide to the City as a Deliverable the resulting custom programs that conform to the Detailed MBGPS Specifications. All Customization (including custom programs) shall be fully tested by the Contractor, and only after the Contractor is satisfied that all errors, bugs and deficiencies in the Customization (including custom programs) have been corrected will the custom features and programs (including all source code) be provided to the City, together with a report on

their testing. The City's Project Manager shall review the Customization including custom programs, request any required clarification from the Contractor and identify any deficiencies or non-conformances in the Customization (including custom programs). The Contractor shall promptly provide the requested clarifying information and correct any deficiencies or non-conformances in the Customization (including custom programs) and resubmit them to the City for further review by the City's Project Manager. The Contractor shall not start installation of any of the Vehicle Components or Admin Components until the City's Project Manager has advised in writing that the City is satisfied with the Contractor's response to information requests, and that all deficiencies and non-conformances in the Customization (including custom programs) have been adequately corrected or addressed by the Contractor to the City's satisfaction.

- 7.2 If the Contractor determines that it is necessary to make changes to any previously approved Customization features, including custom programs, the Contractor shall submit the request to the City's Project Manager together with a detailed explanation of the need for such changes, and the impact on the cost of the Customized MBGPS, the Work Schedule and the Contract Price. If the City's Project Manager approves such changes or amendments then the Customization including custom programs, Work Schedule and Contract Price will be amended as approved, provided that the Contract Price will not be adjusted if the need for such changes to the Customization or custom programs was due to errors, bugs or deficiencies as originally created by the Contractor.

8.0 LANDFILL SITE SURVEY

- 8.1 The Contractor shall undertake a detailed site survey of the Landfill Site to ensure that the Customized MBGPS will operate at the Landfill Site as required by the MBGPS Requirements and the Detailed MBGPS Specifications. The City shall not be liable for any latent or other factors at the Landfill Site that may adversely impact the operation or use of the Customized MBGPS. It shall be the responsibility of the Contractor to review and evaluate the Landfill Site to identify all factors that may affect the Customized MBGPS operation, and to ensure that all such factors are adequately addressed and provided for, and will not adversely affect the operation or use of the Customized MBGPS.

9.0 RTK NETWORK REVIEW

- 9.1 As part of the Services, the Contractor shall be responsible for determining and advising the City on the interoperability and integration of the RTK Network with the Customized MBGPS. It is acknowledged that neither the RTK Network nor the services provided by it can be modified in order to accommodate any requirements of the Customized MBGPS.
- 9.2 The Contractor shall undertake a detailed review of the RTK Network to ensure that the Customized MBGPS will operate with it in an integrated manner at the Landfill Site as required by the MBGPS Requirements and the Detailed MBGPS Specifications. The City shall not be liable for any RTK Network factors that may adversely impact the operation or use of the Customized MBGPS. It shall be the responsibility of the Contractor to review and evaluate the RTK Network to identify all factors that may affect the Customized MBGPS operation, and to ensure that all such factors are adequately addressed and provided for, and will not adversely affect the operation or use of the Customized MBGPS.

10.0 COMPONENT DELIVERY

- 10.1 The Contractor will deliver the Vehicle Components and Admin Components at its sole risk and expense, FOB the Host Vehicles and the Admin Center at the Landfill Site, unless other arrangements have been previously agreed to in writing by the parties. The Contractor and the City shall arrange mutually convenient times at which the Vehicle Components and Admin Components will be delivered.
- 10.2 The Contractor is responsible for arranging, and paying all costs and expenses of, the transportation, handling, shipping, and insurance, for all Vehicle Components and Admin Components.
- 10.3 The Contractor will provide to the City complete details of the shipping, handling and other transport arrangements prior to the Vehicle Components and Admin Components being shipped. The City shall have no obligations to the transport company, or for the shipping, handling and other transport arrangements. If the transport of the Vehicle Components or Admin Components encounter delays which may impact the Work Schedule, then the Contractor shall arrange for expedited shipping at its own cost and notify the City of the new arrangements.
- 10.4 The Vehicle Components and Admin Components, and all other Customized MBGPS materials, components or equipment delivered by the Contractor, must conform to the Detailed MBGPS Specifications that have been approved by the City. All materials, components and equipment comprising the Customized MBGPS are subject to inspection upon delivery. The City has the right to refuse any of the Customized MBGPS materials, components or equipment that are not in accordance with the Detailed MBGPS Specifications. Non-rejection by the City of any of the Customized MBGPS materials, components or equipment does not eliminate, reduce or otherwise modify any of the MBGPS Requirements. The City will not be deemed to have accepted any of the Customized MBGPS materials, components, equipment or services by virtue of any partial or full payment for them.
- 10.5 If any part of the Work is delivered to the City or performed substantially in advance of its delivery date scheduled in the Work Schedule, the City may accept such Work without prejudice to its right to refuse to accept subsequent deliveries or performances in advance of a scheduled delivery date, or return the goods and services to the Contractor at the Contractor's expense. Any retention by the City of goods and services delivered substantially in advance of a scheduled delivery shall not accelerate the time for payment by the City. The City will not be responsible for the care and security of the components that are delivered substantially in advance of the scheduled delivery date.

11.0 COMMISSIONING: INSTALLATION, INTEGRATION AND CONFIGURATION

- 11.1 After completion of the Customization, successful shop Tests, Landfill Site Survey and RTK Network Review, the Contractor shall commission the Vehicle Components and Admin Components, including undertaking their installation, configuration and RTK Network integration, on the Host Vehicles and at the Admin Center respectively. The Contractor and the City shall arrange mutually convenient times at which the Vehicle Components and Admin Components will be commissioned. The City shall have the right, but not the obligation, to monitor all delivery, installation, integration, configuration and other commissioning activities. The Contractor shall provide to the City notice of the completion of the commissioning or any delays or deficiencies in such commissioning. If there are any delays or deficiencies in the commissioning, then the

Contractor shall promptly address such delays and deficiencies at its cost and expense to eliminate or minimize them. Thereafter, the Contractor shall repeat the process until the Contractor advises in writing that the commissioning is successfully completed and the Customized MBGPS is ready for Site Testing.

- 11.2 The City shall prepare the Host Vehicles and the Admin Center to allow installation and commissioning of the Vehicle Components and the Admin Components, based upon the Detailed MBGPS Specifications provided by the Contractor. If due to inaccurate or incomplete Detailed MBGPS Specifications, the installation or other commissioning of the Vehicle Components and the Admin Components require further or additional modifications to the Host Vehicles and/or the Admin Center, or the Vehicle Components and/or the Admin Components require further or additional modifications, replacements or additions for proper installation or commissioning at the Host Vehicles and the Admin Center, then all costs and expenses of all such modifications, additions and replacements shall be for the account of and borne by the Contractor.
- 11.3 Upon payment by the City of the portion of the Contract Price allocated to the commissioning activities, the Contractor shall provide a Bill of Sale and such other documents of title as reasonably requested by the City to evidence that ownership of the Customized MBGPS has transferred to the City, free and clear of all liens, charges and encumbrances.
- 11.4 The Contractor shall promptly repair any damage to the Landfill Site or any City premises or property, which during the course of its Work it has caused, at no charge to the City and to the satisfaction of the City. Alternatively, the City may repair the loss or damage and the Contractor shall pay to the City the costs of repairing the loss or damage forthwith upon demand from the City. Where, in the opinion of the City, it is not practical or desirable to repair the loss or damage, the City may estimate the cost of the loss or damage and deduct such estimated amount from the Contract Price owing to the Contractor.

12.0 SITE TESTS AND CUT-OVER

- 12.1 Once the commissioning is successfully completed, the Site Tests of the Customized MBGPS will be carried out by the Contractor, using appropriate equipment and following the testing protocols and benchmarks specified in Schedule C. The City shall have the right to attend all Site Tests and to review all test results which shall be provided in a written report by the Contractor.
- 12.2 If the Customized MBGPS fails to meet any of the Site Tests and such failures or deficiencies do not constitute Critical Shortfalls, then the Contractor and the City will agree on a reduction in the Contract Price to reflect such failures or deficiencies. If the parties are unable to agree on the amount of such reduction, or whether such Site Test failure occurred or if it constituted a non-Critical Shortfall, then the City shall have the right to elect to terminate the Agreement with no further liability or obligation or to submit such matter to arbitration pursuant to Section 36.
- 12.3 If the Customized MBGPS fails to meet any of the Site Tests and such failures or deficiencies constitute Critical Shortfalls, then the Contractor will at its own cost and expense promptly undertake further Customization, and/or redesign or replace the Customized MBGPS components which are the cause of such failures or deficiencies as necessary, and when completed repeat the commissioning and Site Tests, and such process shall be repeated until the Site Tests have successfully concluded.

- 12.4 Once the Contractor has completed all necessary Customizations and made all the component redesigns and replacements for Critical Shortfalls, and the Site Tests have successfully concluded in all respects, the Contractor will so notify the City and advise that the Customized MBGPS is ready for Cut-Over.
- 12.5 After the City has received a notice of readiness for Cut-Over from the Contractor, the City shall have the right to either confirm the Contractor's notice and choose the date on which the Customized MBGPS is to be Cut-Over by the Contractor to a live environment for its normal intended uses, or to dispute that the Customized MBGPS is ready for Cut-Over and submit such matter to arbitration pursuant to Section 36.
- 12.6 Upon the City selecting a Cut-Over date, the Contractor will provide reasonable assistance to the City to make the Customized MBGPS ready by the Cut-Over date and support the City in implementing the Customized MBGPS in a live environment for its normal intended uses on such date.

13.0 WARRANTY

- 13.1 The Contractor represents and warrants that during the Warranty Period of 60 months from the Cut Over date:
- (a) the Customized MBGPS supplied by the Contractor will be fit for its intended use and will conform to and perform according to the MBGPS Requirements and the Detailed MBGPS Specifications;
 - (b) the Vehicle Components, the Admin Components and all other components comprising the Customized MBGPS will be free from defects in workmanship, materials and design;
 - (c) the Services will be performed to the standard of care, skill and diligence customarily adhered to by persons providing, on a commercial basis, services similar to the Services provided hereunder;
 - (d) the Contractor will comply with all applicable regulations and standards prescribed by Federal, Provincial, and Municipal governments and agencies; and
 - (e) the Customized MBGPS and all its materials, components and equipment shall be new, and free and clear of all liens, charges and encumbrances.
- 13.2 The Contractor represents and warrants that its employees have the qualifications, experience, knowledge, skills and abilities necessary for the fulfilment of the Work.
- 13.3 The Contractor represents and warrants that all claims and representations made by the Contractor with respect to third party products, materials and services utilized in the Work have been fully authorized by such third parties. To the extent that any parts, components or materials incorporated in the Customized MBGPS, or otherwise supplied as part of the Work, are subject to or covered by a warranty provided by a third party supplier, then the Contractor shall to the extent possible assign the benefit of such warranties to the City.

- 13.4 During the Warranty Period, upon becoming aware of the Customized MBGPS not complying with any aspect of the Warranty, or on receipt of notice from the City of any claim under the Warranty, the Contractor shall take prompt action to correct such non-compliance. The Contractor will supply replacement parts for failed components, and provide bug fixes and software modifications, as necessary to make the Customized MBGPS fully functional and compliant with all the Warranty provisions, including providing all parts, components, materials, software and labour delivered at the Landfill Site, at no cost or expense to the City. All replacement parts, components, software and materials shall be subject to the same Warranty for the balance of the original Warranty Period. If the repair or replacement of any parts, components, software or materials is a recurring event under the Warranty, then the Contractor shall promptly modify, redesign the relevant portions of the Customized MBGPS at its cost and expense, to eliminate such recurring repair or replacement of parts, components, software or materials.

14.0 TRAINING

- 14.1 The Contractor shall provide Training to the employees and agents of the City in the administration, use, operation and maintenance of the Customized MBGPS as set out in Schedule D. The timing of the Training will be in accordance with the Work Schedule or as otherwise mutually agreed by the parties. The location and curriculum of the Training is set out in Schedule D. The cost of the Training described in Schedule D is included in the Contract Price. Additional training and instruction will be provided by the Contractor when requested by the City, at the Contractor's then standard rates on a time and materials basis.

15.0 DOCUMENTATION

- 15.1 As part of the supply of Services under this Agreement, the Contractor shall provide the Documentation to the City, as set out in Schedule J, in sufficient detail and scope to allow the City's employees and agents who have completed the Training to operate and provide basic support for the Customized MBGPS. The Contractor shall provide the Documentation for review and approval by the City. The City's Project Manager shall review the Documentation and shall identify any deficiencies in content or format. The Contractor shall promptly correct the deficiencies and resubmit the Documentation to the City for further review by the City's Project Manager. The Contractor shall not start the Training until after the City's Project Manager has advised in writing that the Documentation is satisfactory.

16.0 PROJECT TEAM MEMBERS

- 16.1 The City and the Contractor shall jointly agree on the Contractor's key personnel that shall comprise the Contractor's Project Team Members. Subject to Section 16.2 below, the Contractor will utilize only its Project Team members for the provision of the Work.
- 16.2 Except for personnel substitutions required by circumstances not within its reasonable control, the Contractor may not make substitutions of Project Team members without the prior written consent of the City, whose consent will not be unreasonably withheld.

- 16.3 For the purposes of this Section 16, "substitutions required by circumstances not within its reasonable control" means substitutions required by virtue of illness, death, injury, pregnancy, medical leave, or termination of employment or contract, but expressly excludes situations where the Project Team member is called upon to perform services for another customer of the Contractor or its Affiliates.
- 16.4 The City may, with stated reasons and acting reasonably, request that the Contractor replace a Project Team member. The Contractor will, subject to scheduling and staffing considerations reasonable acceptable to the City, make commercially reasonable efforts to replace such individual with someone of substantially similar competency and experience.
- 16.5 Regardless of whether or not the City consents to a substitution, or requests a substitution, the City will not be liable to pay additional compensation to the Contractor for any replacement Project Team members.

17.0 SUB-CONTRACTORS

- 17.1 Except as expressly identified and approved as a Project Team member, the Contractor confirms that it does not intend to utilize any sub-contractors or non-employees for the performance of any part of the Work.
- 17.2 Except as expressly identified and approved as a Project Team member, the Contractor may not engage sub-contractors for the performance of any part of the Work, unless the Contractor has first obtained the written consent of the City, which consent may be arbitrarily withheld.
- 17.3 The Contractor will administer, coordinate, and manage all Work provided by any sub-contractors, and will assume full liability and responsibility to the City, for all Work performed by the sub-contractors. The Contractor will pay all fees and disbursements of all sub-contractors, subject to reimbursement by the City only when the City has expressly agreed in writing that such reimbursement is to be separate from and additional to the fees and allowable reimbursable disbursements payable to the Contractor.
- 17.4 Where a sub-contractor is used by the Contractor under this Agreement, the Contractor will legally bind the sub-contractors to comply with all applicable provisions of this Agreement.
- 17.5 Nothing in this Agreement will create any contractual relationship between a sub-contractor and the City.

18.0 CONTRACT PRICE AND PAYMENT

- 18.1 In consideration of the Work performed by the Contractor to the reasonable satisfaction of the City and in conformity with the terms of this Agreement, the City will pay the Contractor the Contract Price as provided in this Section 18, plus the Goods and Services Tax and PST as applicable. Fees and charges for the Support Services are separately priced and are in addition to the Contract Price.
- 18.2 For any Services specified to be provided on a time and materials basis under this Agreement, unless expressly set out otherwise, the amounts payable to the Contractor for such Services will be based on:

- (a) days (and part days) worked by the Project Team members in providing the Services multiplied by the daily (and part day as applicable) charge-out rates set out in Schedule K; and
 - (b) the direct out-of-pocket disbursements necessarily incurred in providing the Services and expressly permitted to be charged separately under this Agreement.
- 18.3 Despite anything to the contrary in this Agreement:
 - (a) the maximum total of the fees and disbursements payable by the City to the Contractor for each Service separately priced in Schedule K will not exceed the corresponding maximum fees and disbursements limit(s) set out in Schedule K for that Service; and
 - (b) for those Services being performed on a "time and materials" basis which are subject to a maximum fees and disbursements limit:
 - (i) where the aggregate of the time and materials utilized by the Contractor for such Services are less than the corresponding maximum amounts set out in Schedule K, the City will only pay for the aggregate of the time and materials at the hourly rates and reimbursable disbursement amounts as set out in Schedule K; and
 - (ii) where the aggregate of the time and materials utilized by the Contractor to deliver such Services exceed the corresponding maximum Fee amounts set out in Schedule K, the City will only pay the maximum Fee amounts applicable for such Services as set out in Schedule K.
- 18.4 Despite anything to the contrary contained in this Agreement, except for Section 18.6, the maximum liability of the City for the complete Work (excluding Support Services) will be the total Contract Price set out in Schedule K. The maximum amounts on the Contract Price or fees and disbursements individually set out in this Agreement will in no way diminish the duties and obligations of the Contractor to provide the Deliverables or Services or the rest of the Work as specified by this Agreement. The Contract Price will be paid in accordance with the payment schedule set out in Schedule K, except for Services indicated to be provided on a time and materials basis.
- 18.5 Where additional fees or disbursements are to be paid by the City to the Contractor for authorized increases in the scope of the Deliverables or Services provided by the Contractor, they will not exceed the amount mutually agreed in writing pursuant to Section 18.
- 18.6 Subject to the maximum liability of the City under Schedule K, disbursements which the City has agreed to separately reimburse the Contractor will be limited to the amounts set out in Schedule K. Reimbursement of these disbursements by the City will be at actual cost without any addition for overhead or profit. All other disbursements and expenses not listed above are deemed to be included in the Contract Price.
- 18.7 If the Contractor has engaged sub-contractor(s) as allowed by this Agreement, then the Contractor will make full payment to those sub-contractor(s) for the Work performed.
- 18.8 Where the City and Contractor have expressly stated in Schedule K (or by subsequent written agreement or amendment to Schedule K) that certain Work is to be performed by a sub-contractor and is to be paid for separately from the other Work, the City will

reimburse the Contractor for payments made to such sub-contractor at amounts equal to the actual payments made to that sub-contractor by the Contractor without any additions for overhead and profit.

- 18.9 For any Services to be provided on a time and materials basis, the Contractor will submit invoices to the City on or before the 10th day of each calendar month. Each invoice will list the names, hours worked and pay rates of all Project Team members that have provided Services on a time and materials basis that month, the total amount of previous payments made by the City for that Service, and the percentage completion for that Service. Each invoice will show separately the applicable amount of the Goods and Services Tax and Provincial Sales Tax. Attached to each invoice will be copies of invoices for all disbursements claimed, confirmation of payments made to sub-contractor(s) for the previous month and a brief report detailing work completed to date, work completed during the month covered by the invoice and work outstanding to complete each Service. Despite anything to the contrary in this Agreement, the City will not be obligated to pay the Contractor a greater percentage of total fees and disbursements than the degree of percentage completion of each Service as set out in this Agreement.
- 18.10 If the City does not approve of or wishes to further review, audit or otherwise seek clarification concerning the Contractor's invoices, for whatever reason, the City will not be liable for interest charges in respect of that invoice for the period from the date the invoice is submitted until the date that the invoice is paid, provided however, the City will use reasonable efforts to have the review, audit or clarification resolved within a 60 day period. The City will, if it approves the amount of such invoices, cause the respective invoices to be paid within 30 days of approval.
- 18.11 The Contractor will keep proper accounts and records of all costs and expenditures forming the basis of any time and materials billing to the City, including but not limited to hours worked, details of all disbursements and percentage amounts of Work completed. All such accounts and records will not be disposed of by the Contractor without the prior written consent of the City. The City will be entitled to verify the accuracy and validity of all billings and payments made by auditing and taking extracts from the books and records of the Contractor and by such other means as will be reasonably necessary or advisable.
- 18.12 The *Income Tax Act* (Canada) requires that payments to non-residents for any work performed in Canada may be subject to a non-resident withholding tax. Exemption from this withholding tax may be available in some circumstances, but the Contractor is responsible for acquiring any exemption. The City is legally required by the *Income Tax Act* (Canada) to withhold a specified amount from any payment to a non-resident (as defined in the Act) where no exemption certificate can be produced to the City by that non-resident. The amount of the withholding is determined by the residency of the non-resident and the applicable *Income Tax Act Regulations*.

19.0 CHANGES TO SCOPE OF WORK BY THE CITY

- 19.1 The City's Project Manager may, from time to time and at any time on prior written notice of not less than 30 days to the Contractor, request a change to the scope of Work to be provided by the Contractor. The changes in scope of Work will be delivered in writing to the Contractor. In such case where this Agreement contains delivery date(s) and/or limit(s) as to the maximum fees and disbursements to be paid to the Contractor for all or any part of the Work proposed to be changed, prior to the change in scope of Work being implemented such delivery date(s) and/or limit(s) and any

consequential provisions will be adjusted as agreed to by both parties in writing, and failing agreement the matter shall be submitted to arbitration pursuant to Section 36.

- 19.2 Should the Contractor consider that any request or instruction from the City's Project Manager constitutes a change in the scope of Work, the Contractor shall so advise the City's Project Manager in writing within ten days of receipt of such request or instruction. Without said written advice being provided by the Contractor within the time period specified, the request or instruction from the City's Project Manager will be deemed not to be a change in the scope of Work, the Contractor will proceed to comply with such request or instruction, and the City will not be obligated to make any payments of additional fees, disbursements or out of pocket expenses to the Contractor for the Work associated with such request or instruction.

20.0 SUPPORT SERVICES

- 20.1 The Contractor will provide as part of the Services, and be fully responsible for, the following Support Services for the Customized MBGPS, as may be modified or amended pursuant to the terms of this Agreement:

- (a) scheduled maintenance;
- (b) preventative maintenance; and
- (c) remedial maintenance ;

as further described in Schedule G.

- 20.2 In providing the Support Services, the Contractor shall meet those service levels set out in Schedule G. If the Contractor fails to meet the service levels for the Support Services, then any fees payable by the City to the Contractor for the Support Services shall be reduced by the applicable service level credits set out in Schedule G.

- 20.3 The Contractor will provide for the Customized MBGPS all components, parts, equipment, materials, supplies, tools, labour and facilities as necessary, appropriate or incidental to the proper and complete provision of the Support Services. The requirements in Schedule G describe only in general terms how the Contractor is to perform the Support Services. If there is any omission in the description of the Support Services, whether or not identified by the City, which would prevent the City from receiving full benefit of the Support Services, then the Contractor will provide such additional omitted items as required to ensure that the Support Services are fully performed.

- 20.4 The Contractor will provide the Support Services during an initial term of 60 months commencing on the expiration of the Warranty Period, subject to earlier termination in accordance with the provisions of this Agreement. The City and the Contractor may extend the Support Services for a further period in which case the terms and conditions of this Agreement will continue to apply during the extension term, subject to pricing to be agreed upon by the parties. Notwithstanding any other provision of this Agreement, if the Contractor provides, and the City expressly accepts, Support Services following the expiry of the initial term, or an extension term, without entering into a written extension of the Support Services, then this Agreement will be deemed to be renewed for the provision of Support Services on a year-to-year basis. The City shall have the right to terminate the Support Services at any time without cause at its discretion on six months prior written notice. The City shall pay for all Support

Services provided in accordance with this Agreement prior to the effective date of termination.

- 20.5 The Contractor will exercise such degree of care, skill, diligence and efficiency in the performance of the Support Services as is required to ensure that the Customized MBGPS will, during the initial and all renewal terms of the Support Services, continue to be fit for its intended use and perform according to the MBGPS Requirements. The Contractor represents and warrants that it has all the skills, qualifications, certifications and experience necessary to perform such Support Services, and acknowledges that its representations as to its skills, qualifications, resources and experience were a material factor in the selection of the Contractor to perform the Work including the Support Services.
- 20.6 Without limiting any other remedy which the City may have under this Agreement or at law, the Contractor at its sole cost upon written request of the City will correct and rectify any of the Support Services which have not been performed in accordance with the terms of this Agreement, and will do all such things that may be reasonably required by the City to satisfy the City that the Support Services have been duly performed or rectified in accordance with the terms of this Agreement.

21.0 RELEASE AND INDEMNIFICATION

- 21.1 The Contractor now releases the City, its officers, employees, officials, councillors representatives, agents, and customers, from all costs, losses, damages and expenses, including those caused by personal injury, death, property damage, economic and other loss, arising out of, suffered or experienced by the Contractor and its sub-contractors and suppliers, and their respective officers, employees and agents, in connection with their performance of the Work under, or any other acts taken by any of them with respect to, this Agreement.
- 21.2 In undertaking the Work, the Contractor acknowledges that it has inspected the Landfill Site, accepted the Landfill Site "as-is", and undertakes to take all precautions necessary to ensure the safety of all persons employed or contracted by the Contractor to perform the Work.
- 21.3 Despite any provision of insurance coverage by the City or the Contractor, the Contractor shall defend, indemnify and save harmless the City, and its officers, employees, officials, councillors, representatives, agents and customers from any expense, cost, loss, claim, damage, actions, and causes of actions, judgment or liability, arising out of:
- (a) any bodily injury, including death, or damage to property due to the errors, omissions, negligent acts, or willful misconduct of the Contractor, its sub-contractors or suppliers, or their respective officers, employees or agents, under this Agreement;
 - (b) a lien or charge at law or in equity or to any claim or liability under the *Builders Lien Act*, or to any attachment for debt, garnishee process or otherwise, arising out of or related in any way to the Customized MBGPS or this Agreement, subject to the City having paid all amounts due to Contractor, and
 - (c) any other claims, actions, lawsuits or other proceedings brought by any sub-contractors, suppliers or agents of the Contractor arising out of or related in any way to the Customized MBGPS or this Agreement.

- 21.4 The Contractor shall defend, indemnify and save harmless the City and its officers, employees, officials, councillors, representatives, agents and customers from any expense, cost, loss, claim, damage, actions, and causes of actions, judgment or liability, for infringement or alleged infringement of any patent, copyright, industrial design, trademark or trade secret, with respect to any of the Deliverables or Services or any other aspect of the Work, or their use for the City's intended purposes.
- 21.5 The indemnities provided by the Contractor will not limit or prejudice the City in exercising any other rights that may be available to it under this Agreement or at law.

22.0 INSURANCE

22.1 General

- (a) Required Coverage - The Contractor will comply at all times with the insurance provisions set out in this Agreement.
- (b) Limitations - The requirements set out in this Agreement do not limit any insurance requirements imposed on the Contractor by municipal, provincial or federal law.
- (c) Additional Coverage - It will be the sole responsibility of the Contractor to determine what additional insurance coverage, if any, is necessary or advisable for the Contractor's own protection and/or to fulfill the Contractor's obligations under this Agreement. Any additional insurance will be provided and maintained by the Contractor at its own expense.

22.2 Requirements for All Policies

- (a) Minimum Limits - Without limiting any of its obligations or liabilities under this Agreement, the Contractor and its sub-contractors will obtain and continuously carry during the term of this Agreement, the following insurance coverages with minimum limits of not less than those shown in the respective items set out below.
- (b) Premiums - The Contractor will pay all premiums and deductible costs for all insurance required to be effected under this Agreement provided always that under no circumstances does the payment of such premiums give the Contractor any interest in the proceeds of such insurance or any control over such policies as they relate to the City's interests.
- (c) Insurers - All policies must be written with companies licensed to do business in British Columbia with a financial rating of VIII or better and a policy holder's rating of A- or better in the latest edition of Best Rating Guide on Property and Casualty Insurance Companies.
- (d) Form of Policy - All insurance policies must be in a form acceptable to the City's Director of Risk Management. Self-funded, policy fronting or other non-risk transfer insurance mechanisms are not permitted.
- (e) Notice to City - All insurance policies must provide the City with 30 days' prior written notice of material change, lapse or cancellation. The policy must provide that the notice will identify the Contract title, number, policy holder, and be delivered in accordance with Section 33 of this Agreement.

- (f) Insurance Obligations Separate - Neither the providing of insurance by the Contractor in accordance with this Agreement, nor the insolvency, bankruptcy or the failure of any insurance company to pay any claim accruing, will be held to relieve the Contractor from any other provisions of this Agreement with respect to the liability of the Contractor or otherwise.
- (g) Primary Coverage - The insurance coverage will be primary insurance in respect to the City. Any insurance or self-insurance maintained by or on behalf of the City, its officers, officials, employees or agents will be excess to the insurance effected by the Contractor under this Agreement and will not contribute with it.
- (h) Properly Disclose - The Contractor will properly disclose all risks in each insurance application, ensure that it does not violate or void any policy and will otherwise comply at all times with the requirements of the insurers and underwriters.
- (i) Failure to Provide - If at any time the Contractor fails to provide a certificate of insurance or certified copies of all insurance policies as required in Section 22.3, the City may (but is not obligated to or liable for the manner in which it does so) effect such insurance on behalf of the Contractor and the cost of doing so will at the City's option either be paid by the Contractor to the City upon request within five calendar days of such a request, or be deducted from the Contract Price.

22.3 Evidence of Insurance

- (a) Proof of Insurance - Prior to commencement of this Agreement, the Contractor will provide the City with evidence of all required insurance to be taken out in the form of a detailed Certificate of Insurance attached as Schedule I supported by a certified copy(ies) of the policy(ies). The certificate of insurance must identify the Contract title, number, policy holder and contract subject-matter, and must not contain any disclaimer. Proof of insurance, in the form of a certificate of insurance or certified copies of all insurance policies, will be made available to the City's Director of Risk Management at any time upon request.
- (b) Cause Sub-contractors to Carry - The Contractor will ensure that those sub-contractors of the Contractor approved in accordance with this Section 22 will place and maintain the same type of insurance, and for the same period of time, as is required of the Contractor.
- (c) Certificates of Sub-contractors Insurance - Upon request, the Contractor will deposit with the City's Director of Risk Management detailed certificates of insurance for the policies it has obtained from its sub-contractors and a copy of the insurance-related clauses from those agreements. For further certainty, the above requirements will apply to all replacement and substitution sub-contractors.

22.4 Commercial General Liability ("CGL") Insurance

- (a) Must Carry CGL - The Contractor will maintain insurance in sufficient amounts and description to protect the Contractor, its sub-contractors, the City and their respective officers, officials, employees and agents against claims for damages, personal injury including death, bodily injury and property damage which may arise under this Agreement.
- (b) \$2,000,000 - The limit of commercial general liability insurance must be not less than \$2,000,000 per occurrence inclusive for personal injury, death, bodily injury or property damage and in the aggregate with respect to products and complete operations.
- (c) Form of Policy - The policy of insurance will:
- (i) be on an occurrence form,
 - (ii) add the City and its officials, officers, employees and agents as additional insureds,
 - (iii) contain a cross-liability or severability of interests clause,
 - (iv) extend to cover non-owned automobiles, contingent employer's liability, blanket contractual liability, contractor's protective liability, broad form property damage, broad form completed operations and operations of attached machinery, and
 - (v) have a policy deductible not exceeding two thousand five hundred dollars (\$2,500) for any one accident or occurrence.
- (d) Primary Insurance
- Pursuant to Section 22.2(g), the Contractor's commercial general policy will be primary insurance in respect to the City.

22.5 Motor Vehicle Liability Insurance

The Contractor will maintain motor vehicle liability insurance for owned and leased or licensed vehicles with limits of \$2,000,000 inclusive for accidental injury to or death of one or more persons or damage to or destruction of property as a result of any one accident. Whether or not the policy has been issued pursuant to a government operated automobile insurance system, the Contractor will provide the City's Director of Risk Management with confirmation of the automobile insurance coverage for all automobiles registered in the name of the Contractor and its permitted sub-contractors used in connection with this Agreement.

22.6 Professional Liability (Errors and Omissions) Insurance

- (a) Form of Coverage - A Professional Liability Insurance policy will be arranged and maintained in full force by the Contractor for the term of this Agreement and for a further period of two (2) years following expiry of the term. The policy must protect the Contractor and its officers, officials, employees and agents performing services for and on behalf of the Contractor against all liability resulting from an error, omission or negligent act in the provision of the Work under this Agreement.

- (b) \$1,000,000 - The limit of this policy must be no less than \$1,000,000 per claim, and \$2,000,000 annual aggregate.
- (c) Deductible - The policy will provide for a limit of deductibility of not greater than \$50,000.
- (d) Project Specific - The insurance coverage provided by the policy may be "Project Specific".

22.7 Property Insurance

- (a) Form of Coverage - The Contractor will maintain an All-Risks insurance policy covering the Contractor's property of every description.
- (b) Waiver of Subrogation - The policy must contain a provision in which the insurer waives all rights which it may acquire by payment of a claim to recover the paid amount from the City or its officers, officials, employees or agents (a "Waiver of Subrogation").
- (c) All Property Insurance Must Contain Waiver - All property insurance policies of any kind carried by the Contractor must contain a Waiver of Subrogation in favour of the City (whether or not such property insurance is carried as a requirement of this Agreement).

23.0 WORKSAFE BC

- 23.1 The Contractor shall use due care that no persons are injured, and no property damaged or lost in the performance of the Work by the Contractor or those for whom it is responsible in the performance of the Work. The Contractor shall effectively warn and protect the public and its personnel from any danger as a result of the performance of the Work in accordance with applicable industry standards and applicable laws.
- 23.2 The Contractor agrees that it shall procure in British Columbia and carry and pay for, full WorkSafeBC coverage for itself and all workers, employees, servants and others engaged in or upon any work or service which is the subject of this Agreement. The Contractor agrees that the City has the unfettered right to set off the amount of the unpaid premiums and assessments for such WorkSafeBC coverage against any monies owing by the City to the Contractor. The City shall have the right to withhold payment under this Agreement until WorkSafeBC premiums, assessments or penalties in respect of work done or service performed in fulfilling this Agreement have been paid in full.
- 23.3 The Contractor shall provide the City with the Contractor's WorkSafeBC registration number and a letter from WorkSafeBC confirming that the Contractor is registered in good standing with WorkSafeBC and that all assessments have been paid to the date thereof prior to the City having any obligation to pay any monies under this Agreement. The Contractor shall indemnify the City and hold harmless the City from all manner of claims, demands, costs, losses, penalties and proceedings arising out of or in any way related to unpaid WorkSafeBC assessments owing from any person or corporation engaged in the performance of this Agreement or arising out of or in any way related to the failure to observe safety rules, regulations and practices of WorkSafeBC, including penalties levied by the WorkSafeBC.

- 23.4 With respect to any and all Services provided by the Contractor or its sub-contractors at the City's site(s), the Contractor is now appointed and now accepts appointment as the "prime contractor", as defined by the *Workers Compensation Act* (British Columbia) and its associated *WorkSafeBC OH&S Regulation* for the purposes of this Agreement, but only with respect to the Contractor's and its sub-contractors' employees, contractors and agents, and only with respect to the *WorkSafeBC OH&S Regulation* that applies to their conduct independently of the City's compliance with the *WorkSafeBC OH&S Regulation* that applies to the condition or contents of the City's site(s).

24.0 CITY CONTRIBUTIONS & APPROVALS

- 24.1 It is recognized that although the Contractor is responsible for the complete scope of the Work, its ability to provide certain of the Services and Deliverables is dependant to varying degrees on the City providing the City Contributions set out in Schedule F in a timely manner as reasonably required by the Contractor. To the extent that the City's material delay or failure to provide the City Contributions is the direct cause of the Contractor's inability or delay in providing any Service or Deliverable, which the Contractor could not reasonably avoid or minimize, the Contractor will not be liable for the resulting delay in such Service or Deliverable, but in no event will such delay or failure to provide City Contributions constitute a breach of this Agreement by the City, nor will the Contractor be entitled to extra compensation for same.
- 24.2 No reviews, tests, approvals or inspections carried out, or information supplied by the City, will derogate from the Work duties and obligations of the Contractor, and all responsibility related to the Work will be and remain with the Contractor.

25.0 COMMUNICATION BETWEEN CONTRACTOR AND CITY

- 25.1 The City appoints _____, of the _____, as the City's Project Manager for the purposes of this Agreement.
- 25.2 The Contractor appoints _____ as the Contractor's Project Manager for the purposes of this Agreement.
- 25.3 All material communications between the Contractor and the City regarding this Agreement, including performance of the Services and supply of the Deliverables, will be between the City's Project Manager and the Contractor's Project Manager.

26.0 DEFAULT SECURITY

- 26.1 The Contractor shall provide to the City on or before the Effective Date, the Default Security in the form, on the terms, and in the amounts set out in Schedule H.
- 26.2 All Bonds provided as Default Security must be duly completed and issued in favour of the City by a company authorized and licensed to carry on a surety business in British Columbia, and having an office in British Columbia.
- 26.3 The cost of all Default Security premiums is for the account of the Contractor, and will be included in the Contract Price.

27.0 TERM OF AGREEMENT

- 27.1 The Term of this Agreement will commence on the Effective Date and shall continue until all the Work is fully completed, including the Warranty period and the period of provision of the Support Services, unless terminated earlier in accordance with this Agreement.

28.0 TERMINATION

- 28.1 The City may at any time, in its sole judgment and discretion, terminate the Work of the Contractor in whole or in part by giving 10 calendar days prior written notice (signed by the City's Project Manager) to the Contractor. For any such discretionary termination which is not for cause, the City will pay the Contractor the following as full compensation in lieu of the Contract Price, expenses, charges and all other claims by, and liabilities and obligations to, the Contractor under this Agreement:

- (a) for Services properly performed prior to the date of the delivery of the said notice, at the rate prescribed for such Services if on a time and materials basis;
- (b) for Deliverables meeting the Agreement requirements properly delivered and accepted by the City prior to the date of the delivery of the said notice, in the amounts specified or allocated by the Agreement for such Deliverables, pro rata for accepted part deliveries;
- (c) for all other Services properly performed, and Deliverables properly delivered and accepted by the City as meeting the Agreement requirements, an amount reasonably allocated to such Services and Deliverables by the City in proportion to their value to the overall scope of the Work, and
- (d) for the Contractor's necessary and reasonable direct wind up costs incurred, if any, for closing out the Work which has not been delivered to and accepted by the City, provided that the Contractor promptly took all available steps to minimize such costs upon receipt of said notice and offered the City the option of taking delivery of such Work in progress upon receipt of payment. In no event will any of the Contractor's wind up costs which the City will pay include any mark-up, overhead or internally allocated costs, or exceed \$_____.

- 28.2 If the Contractor defaults in carrying out any of the terms and conditions contained in this Agreement, including a failure to make a timely delivery of conforming Deliverables or Services, and fails to cure such default within 30 days after written notice from the City, or if the default is such that it cannot be completely cured within such 30 days and the Contractor fails to begin and diligently proceed to cure the default to the extent possible within such 30 day period, or if it becomes bankrupt or insolvent, has a receiving order made against it, makes a general assignment for the benefit of its creditors, or takes the benefit of any statute relating to bankrupt or insolvent debtors, the City may:

- (a) on written notice to the Contractor, terminate or suspend all or any portion of this Agreement for default without further liability to the City;
- (b) make good such deficiencies and may deduct the costs and expenses of doing so from the Contract Price due to the Contractor, including producing or acquiring similar goods and services to those ordered hereunder on such terms or in such manner as the City may deem appropriate;

- (c) exercise or call upon any and all remedies afforded by any Default Security for performance issued by the Contractor under this Agreement, or any insurance, all of which will survive any such termination of the Agreement; and
- (d) require the Contractor, at the Contractor's cost, to transfer title and deliver to the City, where applicable, all completed Deliverables paid for by the City but not yet delivered to the City, such partially completed goods as the City considers necessary and has paid for, and any of the City property in Contractor's possession.

28.3 The rights and remedies of the City provided in this Section 28 shall not be exclusive and are in addition to any other rights and remedies provided by law and in equity, or under this Agreement.

29.0 ASSIGNMENT

29.1 The Contractor will not assign this Agreement in whole or in part except with the prior written consent of the City, which consent may be withheld, delayed or conditioned at the City's sole discretion. Any attempt to assign this Agreement without such consent will be void and of no effect. However, the Contractor will be permitted to assign this Agreement to any entity into, by or with which, all the business or assets of the Contractor have been fully merged, acquired, consolidated or re-organized, or any entity which purchases all or substantially all of the business or assets of the Contractor, provided always that the Contractor first provides to the City:

- (a) reasonable particulars of the transaction permitting the City to independently verify the nature of the transaction;
- (b) evidence reasonably satisfactory to the City that such new entity has the financial, professional and technical capabilities and resources to fully carry out the Work; and
- (c) a legally enforceable covenant from the new entity confirming that it is legally bound to the City to perform this Agreement on all its terms and conditions.

30.0 NO PROMOTION OF RELATIONSHIP

30.1 The Contractor shall not disclose or promote its relationship with the City, including by means of any verbal declarations or announcements and by means of any sales, marketing or other literature, letters, client lists, press releases, brochures or other written materials, without the express prior written consent of the City (except as may be reasonably necessary for the Contractor to perform the Contractor's obligations under the terms of this Agreement).

30.2 The Contractor shall not use "VANOC", "Vancouver 2010", the official emblem, logo or mascot of the 2010 Games, or make any reference to them, as a means of promotion or publicity, without the express prior written consent of the City. Furthermore, the Contractor undertakes not to disclose or promote its relationship with the City in any communication or manner whatsoever as a basis to create an association, express or implied, between the Contractor and the IOC, the Olympics or the Olympic Movement.

31.0 INTELLECTUAL PROPERTY & CONFIDENTIAL INFORMATION

31.1 Ownership of Intellectual Property

- (a) The City and its Affiliated Organizations shall have a perpetual, irrevocable, non-exclusive, fully paid-up, transferable right to use, copy, maintain and modify the Deliverables, for the GPS Mapping Project in any way the City sees fit, including the Documentation, custom programs and other Customization, produced, supplied, developed or implemented by the Contractor, its employees and sub-contractors as part of the Work.
- (b) Subject to the rights granted in Section 31.1(a), all of the Contractor Intellectual Property incorporated or embedded in the Deliverables, and all Contractor Intellectual Property Rights therein, will remain the exclusive property of the Contractor and/or its licensors.
- (c) The Contractor hereby waives in favour of the City and its Affiliated Organizations all moral rights in the Deliverables.
- (d) The Contractor hereby represents and warrants that the Deliverables will not:
 - (i) incorporate any third party technology, confidential information or other intellectual property without all required licenses having been obtained by the Contractor allowing their use by the City as described herein,
 - (ii) require payment of any additional fees or charges by the City, and
 - (iii) will not infringe any Intellectual Property Rights of any third party.

31.2 License of the Contractor Intellectual Property

The Contractor hereby grants to the City and each of its Affiliated Organizations a perpetual, fully paid-up, royalty free, world-wide, non-exclusive license to use all of the Contractor Intellectual Property incorporated or embedded in the Deliverables for use as part of the Customized MBGPS.

31.3 Confidential Information

(a) Contractor's Confidential Information

For the purposes of this Section 31, "Confidential Information" means, with respect to the Contractor, the Contractor Intellectual Property, and any other information reasonably identified in writing as the confidential information of the Contractor.

(b) City's Confidential and Proprietary Information

For the purposes of this Section 31, "Confidential Information" means, with respect to the City, any and all information obtained by the Contractor from the City or its Affiliated Organizations through the course of carrying out this Agreement, and any other information reasonably identified in writing as the confidential or proprietary information of the City.

(c) Exclusions from Confidential Information

For further certainty, "Confidential Information" does not include information which:

- (i) is or becomes publicly available through no act or failure of the recipient party,
- (ii) was or is rightfully acquired by the recipient party from a source other than the disclosing party prior to receipt from the disclosing party,
- (iii) becomes independently available to the recipient party as a matter of right (and such right is recorded in writing and is exercisable without any obligation of confidentiality), or
- (iv) was in the possession of the recipient party prior to its receipt from the disclosing party.

31.4 Obligations of Recipient Party

- (a) Neither party shall make use of, or permit any other person to make any use of, the Confidential Information received from the other party, except for the limited purposes contemplated by this Agreement.
- (b) The recipient party shall limit disclosure of the other party's Confidential Information to only those of its employees, officers, directors, or third parties, whose access is necessary to carry out the intent of this Agreement, on a need to know basis. Prior to disclosing any Confidential Information to any third party, the recipient party shall obtain from such third party a written acknowledgment that the third party will be bound by confidentiality and use restrictions of at least the same scope as in this Section 31 with respect to the Confidential Information. The recipient party will take all reasonable steps, and no less than the same protective measures taken to protect the recipient party's own Proprietary Information from disclosure to third parties provided that the standard of care utilized will not in any case be less than that which would be taken by a reasonable person to safeguard information of like commercial or public interest value.
- (c) If the recipient party is compelled by due process of law to disclose the other party's Confidential Information, it shall to the extent reasonably possible promptly notify the other party and provide it with any available opportunity to obtain a protection order or other remedy against disclosure, and if so compelled the recipient party being ordered to disclose shall only furnish that portion of the Confidential Information that it is legally required to furnish.

32.0 SURVIVAL

- 32.1 Despite the expiry or earlier termination of this Agreement, those terms and conditions which are intended or are in their context capable (whether or not expressly) of operating afterwards will continue in full force and effect, including without limitation Sections 21, 28, 30, 31, 32, 36 and 38.

33.0 NOTICES

- 33.1 Any notice required to be given in regard to this Agreement shall be given in writing, and if to the City will be delivered by hand or sent by registered mail to the address, or transmitted to the fax number or e-mail address provided in writing by the City from time to time by the City's Project Manager, and if to the Contractor will be delivered by hand or sent by registered mail to the address, or transmitted to the fax number, or

e-mail address set out in its Proposal or otherwise provided in writing by the Contractor from time to time

- 33.2 No notice by fax or email will be deemed to have been received by the recipient unless and until its receipt is acknowledged by the recipient, or if it is delivered by hand or sent by registered mail in which case it will be deemed to have been received on the first business day after its actual receipt or arrival at such civic address.

34.0 NO CONFLICT OF INTEREST

- 34.1 During the term of this Agreement, the Contractor will not engage in any conduct which would or might put the interests of the City into conflict with the interests of any other person, whether or not a client or customer of the Contractor's.
- 34.2 The Contractor represents and warrants that there is no officer, director, shareholder, partner or employee of the Contractor, or other person related to the Contractor's organization (individually and collectively a "person having an interest"), or any spouse, business associate, friend or relative of, a person having an interest, who is an elected official or employee of the City, or is related to or has any business or family relationship with an elected official or employee of the City, such that there would be any conflict of interest or any appearance of a conflict of interest in the administration of this Agreement or the performance of the Work.

35.0 COMPLIANCE WITH LAW

- 35.1 The Contractor will comply with the City of Vancouver *License By-law* and maintain a valid business license throughout the duration of the Agreement, a copy of which shall be provided to the City.
- 35.2 In carrying out the Work, the Contractor shall familiarize itself and comply with all applicable laws and by-laws, and shall obtain all necessary licenses, permits and registrations as may be required by the applicable laws and by-laws.
- 35.3 All provisions of the *United Nations Convention on Contracts for the International Sale of Goods* are specifically excluded from application of this Agreement.

36.0 RESOLUTION OF DISPUTES

- 36.1 All claims, disputes or issues in dispute between the City and the Contractor shall be decided by mediation or arbitration, if the parties agree, or failing agreement in a court of competent jurisdiction within the Province of British Columbia and be governed by the laws of British Columbia.
- 36.2 In the event that the parties agree to arbitration pursuant to the above, or as otherwise provided in this Agreement, the arbitration shall be governed by the rules of the British Columbia International Commercial Arbitration Centre. The arbitrator or arbitrators shall be agreed upon by the parties, and failing agreement by the parties, shall be appointed by a court of competent jurisdiction within the Province of British Columbia.
- 36.3 In the event that the parties agree to arbitration, the arbitration shall take place in the Lower Mainland, British Columbia and be governed by the laws of British Columbia.
- 36.4 The procedure set out in this section is not meant to preclude or discourage informal resolution of disagreements between the City and the Contractor.

37.0 INDEPENDENT CONTRACTOR

- 37.1 The Contractor, its permitted sub-contractors, and the officers, directors, shareholders, partners, personnel, affiliates and agents of the Contractor and its permitted sub-contractors, are providing the Work as independent contractors, and are not, nor are they to be deemed to be, partners, appointees, employees or agents of the City.
- 37.2 The Contractor shall not represent to anyone that the Contractor has any authority to bind the City to any agreement, commitment or in any other way.

38.0 FAILURE TO ENFORCE

- 38.1 Any failure by the City to enforce or require the strict keeping and performance of any of the terms and conditions contained in this Agreement will not constitute a waiver of such terms and conditions and will not affect or impair such terms and conditions in any way or the City's right at any time to avail itself of such remedies as the City may have for any breach or breaches of such terms and conditions.

39.0 INDEPENDENT LEGAL ADVICE

- 39.1 The Contractor acknowledges that the Contractor has been advised to seek independent legal advice before executing this Agreement.

40.0 COUNTERPARTS

- 40.1 This Agreement and any other writing delivered pursuant hereto may be executed in any number of counterparts, including by facsimile or other electronic transmission, with the same effect as if both parties to this Agreement or such other writing had signed the same document, and all counterparts will be construed together and constitute one and the same instrument.

41.0 LEGALLY BINDING AGREEMENT

- 41.1 This Agreement will benefit and be legally binding on the parties and their successors and permitted assigns.
- 41.2 This is the entire agreement between the Contractor and the City regarding its subject, and it supercedes and terminates any negotiations, other agreements or representations made by or between the Contractor and the City. Any modification of this Agreement must be in writing and executed by both the Contractor and the City.

IN WITNESS TO THE ABOVE the parties have executed and delivered this Agreement as set out below, by their duly authorized representatives.

CITY OF VANCOUVER

BY: _____
Signature

NAME: Frances J. Connell

TILE: Director of Legal Services

DATE: _____

Approval as to Form: _____

Approval as to Form: _____

_____(Contractor)

BY: _____
Signature

NAME: _____

TILE: _____

DATE: _____

SCHEDULE A
REQUEST FOR PROPOSAL
(RFP Attached)

SCHEDULE B

PROPOSAL

(Proposal attached)

SCHEDULE C

SHOP TESTS AND SITE TESTS

SCHEDULE D

TRAINING

SCHEDULE E
WORK SCHEDULE

SCHEDULE F
CITY CONTRIBUTIONS

SCHEDULE G

SUPPORT SERVICES AND SERVICE LEVELS

SCHEDULE H

DEFAULT SECURITY

(LETTER OF CREDIT)

[NTD: Insert Date]

City of Vancouver
453 West 12th Avenue
Vancouver, British Columbia
V5Y 1V4

Dear Sirs:

RE: [NTD: Insert Name of Company]

Pursuant to the request of our customer ([NTD: Insert Name]) on behalf of [NTD: Insert Name of Company] (the "Customer"), we the undersigned _____ hereby establish an irrevocable demand Letter of Credit in your favour in the total amount of _____ (\$_____) Dollars in Canadian Funds, which you may draw upon at any time and from time to time and which shall be honoured and paid forthwith to you provided that you demand all or part of the sum prior to the expiry of the Letter of Credit.

We hereby authorize you to draw on this Branch under this Letter of Credit in the form of a written demand for payment, which demand we shall honour without enquiring whether you have a right as between you and the Customer to make such demand and without acknowledging any claim of the Customer. Provided, however, that you are to deliver to us at the above address at such time as a written demand for payment is made by you upon us, a written confirmation (in the form annexed hereto as Schedule "A") signed by the City Treasurer or Deputy City Treasurer of the City of Vancouver that the monies drawn by you are due and payable to you in accordance with an agreement between you and [NTD: Insert Name of Company].

Partial drawings are permitted.

Drawings hereunder must be presented at this Branch on or before the end of the banking business on the _____ [NTD: Insert date which must be at least one year from date of issuance], at which time this Letter of Credit will expire.

It is a condition of this irrevocable demand Letter of Credit that it shall be deemed to be automatically extended without amendment for a further one (1) year period from the present or any future expiration date hereof, unless at least 60 days prior to the present or any future expiration date, the issuer notifies the beneficiary in writing by registered mail, that it does not elect to consider this irrevocable demand Letter of Credit to be renewable for any additional period.

This Letter of Credit is issued subject to the Uniform Customs and Practices for Documentary Credit

For: _____

ATTACHMENT TO LETTER OF CREDIT

Schedule "A"

TO: [NTD: Insert Name of Chartered Bank]

RE: [NTD: Insert Letter of Credit # (i.e. Reference Number for Letter of Credit)]

Pursuant to the terms of the above noted Letter of Credit issued by you in favour of the City of Vancouver, we hereby demand payment of the sum of \$[NTD: Insert Amount]. We confirm that the amount hereby drawn on the Letter of Credit by this correspondence is due and payable to us pursuant to the terms of the agreement between the City of Vancouver and [NTD: Insert Name of Company].

We trust this is satisfactory.

CITY OF VANCOUVER

PER: City Treasurer or Deputy City Treasurer



CERTIFICATE OF INSURANCE – CGL

Section 8 b) – to be completed by City staff. Select # of days Written Notice is required.
Section 2 through 7 – to be completed by the Insurer or its Authorized Representative

1. **THIS CERTIFICATE IS ISSUED TO:** City of Vancouver, 453 W 12th Avenue, Vancouver, BC, V5Y 1V4
And certifies that the insurance policies as listed herein have been issued to the Named Insured(s) and are in full force and effect as of the effective date of the agreement described below.
2. **NAMED INSURED:** *(must be the same name as the Permittee/Licensee or Party(ies) to Contract and is either an individual or a legally incorporated company)*

MAILING ADDRESS: _____

LOCATION ADDRESS: _____

DESCRIPTION OF OPERATION, CONTRACT, AGREEMENT, LEASE, PERMIT OR LICENSE: _____

3. **PROPERTY INSURANCE** naming the City of Vancouver as a Named Insured and/or Loss Payee with respect to its interests (All Risks Coverage including Earthquake and Flood)

INSURER: _____	INSURED VALUES: (Replacement Cost)
TYPE OF COVERAGE: _____	Building and Tenants Improvement: \$ _____
POLICY NUMBER: _____	Contents and Equipment: \$ _____
POLICY PERIOD: From _____ to _____	Deductible Per Loss: \$ _____

4. **COMMERCIAL GENERAL LIABILITY INSURANCE (Occurrence Form)**
Including the following extensions:

<input checked="" type="checkbox"/> Personal Injury <input checked="" type="checkbox"/> Products and Completed Operations <input checked="" type="checkbox"/> Cross Liability or Severability of Interest <input checked="" type="checkbox"/> Employees as Additional Insureds <input checked="" type="checkbox"/> Blanket Contractual Liability <input checked="" type="checkbox"/> Non-Owned Auto Liability	LIMITS OF LIABILITY: (Bodily Injury and Property Damage Inclusive) Per Occurrence: \$ _____ Aggregate: \$ _____ All Risk Tenant's Legal Liability: \$ _____ Deductible Per Occurrence: \$ _____
--	--

INSURER: _____
POLICY NUMBER: _____
POLICY PERIOD: From _____ to _____

5. **AUTOMOBILE LIABILITY INSURANCE** for operation of owned and/or leased vehicles

INSURER: _____	LIMITS OF LIABILITY:
POLICY NUMBER: _____	Combined Single Limit: \$ _____
POLICY PERIOD: From _____ to _____	<i>If vehicles are insured by ICBC, complete and provide Form APV-47.</i>

6. **UMBRELLA OR** **EXCESS LIABILITY INSURANCE**

INSURER: _____	LIMITS OF LIABILITY: (Bodily Injury and Property Damage Inclusive)
POLICY NUMBER: _____	Per Occurrence: \$ _____
POLICY PERIOD: From _____ to _____	Aggregate: \$ _____
	Self-Insured Retention: \$ _____

7. **OTHER INSURANCE** (e.g. Boiler & Machinery, Business Interruption, Crime, etc.) – Please specify Name of Insurer(s), Policy Number, Policy Period, and Limit

8. **POLICY PROVISIONS:**
Where required by the governing contract, agreement, lease, permit or license, it is understood and agreed that:
 - a) *The City of Vancouver, its officials, officers, employees, servants and agents have been added as Additional Insureds with respect to liability arising out of the operation of the Named Insured pursuant to the governing contract, agreement, lease, permit or license;*
 - b) *SIXTY (60) days written notice of cancellation or material change resulting in reduction of coverage with respect to any of the policies listed herein, either in part or in whole, will be given by the Insurer(s) to the Holder of this Certificate; the exception is cancellation for non-payment of premiums in which case the applicable statutory conditions will apply;*
 - c) *The insurance policy (policies) listed herein shall be primary with respect to all claims arising out of the operation of the Named Insured. Any insurance or self-insurance maintained by the City of Vancouver shall be in excess of this insurance and shall not contribute to it.*

SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE _____ Dated: _____

PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER _____

SCHEDULE I



PROFESSIONAL LIABILITY INSURANCE CERTIFICATE

Section 4 – to be completed by City staff. Select # of days Written Notice is required.
Section 2 & 3 – to be completed by the Insurer or its Authorized Representative

1. THIS CERTIFICATE IS ISSUED TO: City of Vancouver, 453 W 12th Avenue, Vancouver, BC, V5Y 1V4

And certifies that the insurance policy as listed herein has been issued to the Named Insured(s) and is in full force and effect as of the effective date of the agreement described below.

2. NAMED INSURED: (must be the same name as the Permittee/Licensee or Party(ies) to Contract and is either an individual or a legally incorporated company)

MAILING ADDRESS:

LOCATION ADDRESS:

DESCRIPTION OF OPERATION/CONTRACT:

3. PROFESSIONAL LIABILITY INSURANCE

LIMITS OF LIABILITY:

INSURER: Per occurrence/claim: \$

POLICY NUMBER: Aggregate: \$

POLICY PERIOD: From to Deductible per occurrence/claim: \$

If the policy is in a "Claims-made Form", please specify the applicable Retroactive Date:

4. POLICY PROVISIONS:

Where required by the governing contract, agreement, permit or license, it is understood and agreed that SIXTY (60) days written notice of cancellation or material change resulting in reduction of coverage with respect to the policy listed herein, either in part or in whole, will be given by the Insurer to the Holder of this Certificate. The exception is cancellation for non-payment of premiums in which case the applicable statutory conditions will apply.

SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE

PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER Dated:

SCHEDULE J
DOCUMENTATION

SCHEDULE K

CONTRACT PRICE AND PAYMENT SCHEDULE



CERTIFICATE OF EXISTING INSURANCE

Section 8 b) – to be completed by City staff. Select # of days Written Notice is required.
 Section 2 through 7 – to be completed by the Insurer or its Authorized Representative

1. **THIS CERTIFICATE IS ISSUED TO:** City of Vancouver, 453 W 12th Avenue, Vancouver, BC, V5Y 1V4
And certifies that the insurance policies as listed herein have been issued to the Named Insured(s) and are in full force and effect as of the effective date of the agreement described below.
2. **NAMED INSURED:** *(must be the same name as the Permittee/Licensee or Party(ies) to Contract and is either an individual or a legally incorporated company)*

MAILING ADDRESS: _____

LOCATION ADDRESS: _____

DESCRIPTION OF OPERATION, CONTRACT, AGREEMENT, LEASE, PERMIT OR LICENSE: _____

3. **PROPERTY INSURANCE** naming the City of Vancouver as a Named Insured and/or Loss Payee with respect to its interests (All Risks Coverage including Earthquake and Flood)
INSURED VALUES: (Replacement Cost)
 INSURER: _____ Building and Tenants Improvement: \$ _____
 TYPE OF COVERAGE: _____ Contents and Equipment: \$ _____
 POLICY NUMBER: _____ Deductible Per Loss: \$ _____
 POLICY PERIOD: From _____ to _____

4. **COMMERCIAL GENERAL LIABILITY INSURANCE (Occurrence Form)**
 Including the following extensions: **LIMITS OF LIABILITY: (Bodily Injury and Property Damage Inclusive)**
 Personal Injury
 Products and Completed Operations
 Cross Liability or Severability of Interest
 Employees as Additional Insureds
 Blanket Contractual Liability
 Non-Owned Auto Liability
 INSURER: _____ Per Occurrence: \$ _____
 POLICY NUMBER: _____ Aggregate: \$ _____
 POLICY PERIOD: From _____ to _____ All Risk Tenant's Legal Liability: \$ _____
 Deductible Per Occurrence: \$ _____

5. **AUTOMOBILE LIABILITY INSURANCE** for operation of owned and/or leased vehicles
 INSURER: _____ **LIMITS OF LIABILITY:**
 POLICY NUMBER: _____ Combined Single Limit: \$ _____
 POLICY PERIOD: From _____ to _____ *If vehicles are insured by ICBC, complete and provide Form APV-47.*

6. **UMBRELLA OR** **EXCESS LIABILITY INSURANCE** **LIMITS OF LIABILITY: (Bodily Injury and Property Damage Inclusive)**
 INSURER: _____ Per Occurrence: \$ _____
 POLICY NUMBER: _____ Aggregate: \$ _____
 POLICY PERIOD: From _____ to _____ Self-Insured Retention: \$ _____

7. **OTHER INSURANCE** (e.g. Boiler & Machinery, Business Interruption, Crime, etc.) – Please specify Name of Insurer(s), Policy Number, Policy Period, and Limit

8. **POLICY PROVISIONS:**
Where required by the governing contract, agreement, lease, permit or license, it is understood and agreed that:
 - a) *The City of Vancouver, its officials, officers, employees, servants and agents have been added as Additional Insureds with respect to liability arising out of the operation of the Named Insured pursuant to the governing contract, agreement, lease, permit or license;*
 - b) *SIXTY (60) days written notice of cancellation or material change resulting in reduction of coverage with respect to any of the policies listed herein, either in part or in whole, will be given by the Insurer(s) to the Holder of this Certificate; the exception is cancellation for non-payment of premiums in which case the applicable statutory conditions will apply;*
 - c) *The insurance policy (policies) listed herein shall be primary with respect to all claims arising out of the operation of the Named Insured. Any insurance or self-insurance maintained by the City of Vancouver shall be in excess of this insurance and shall not contribute to it.*

SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE _____ Dated: _____

PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER _____



FINANCIAL SERVICES GROUP
Supply Management

Purchasing Services

Request for Proposal No. PS09032
Machine Based Global Positioning System

To acknowledge your intent to attend the Proponents' Information Meeting being held as per Part A Introduction, Section 3.1, and to ensure that you receive the required information, please submit this form to the person identified below on or before May 8, 2009.

Donna Lee
Administrative Assistant
City of Vancouver
Fax: (604) 873-7057
Email: purchasing@vancouver.ca

Your details:

Proponent's Name: _____
"Proponent"

Address: _____

Telephone _____ Fax: _____

Key Contact Person: _____

E-mail: _____ Incorporation Date: _____

Our company WILL / WILL NOT attend the informational meeting for
"RFP No.PS09032 - Machine Based Global Positioning System"

Authorized Signatory and Name of Company (Please print)

E-mail Address (Please print)

Date



VANCOUVER LANDFILL SAFE WORK PROCEDURE

Developed or Revised (most recent date):
Next Scheduled Review / Revision:

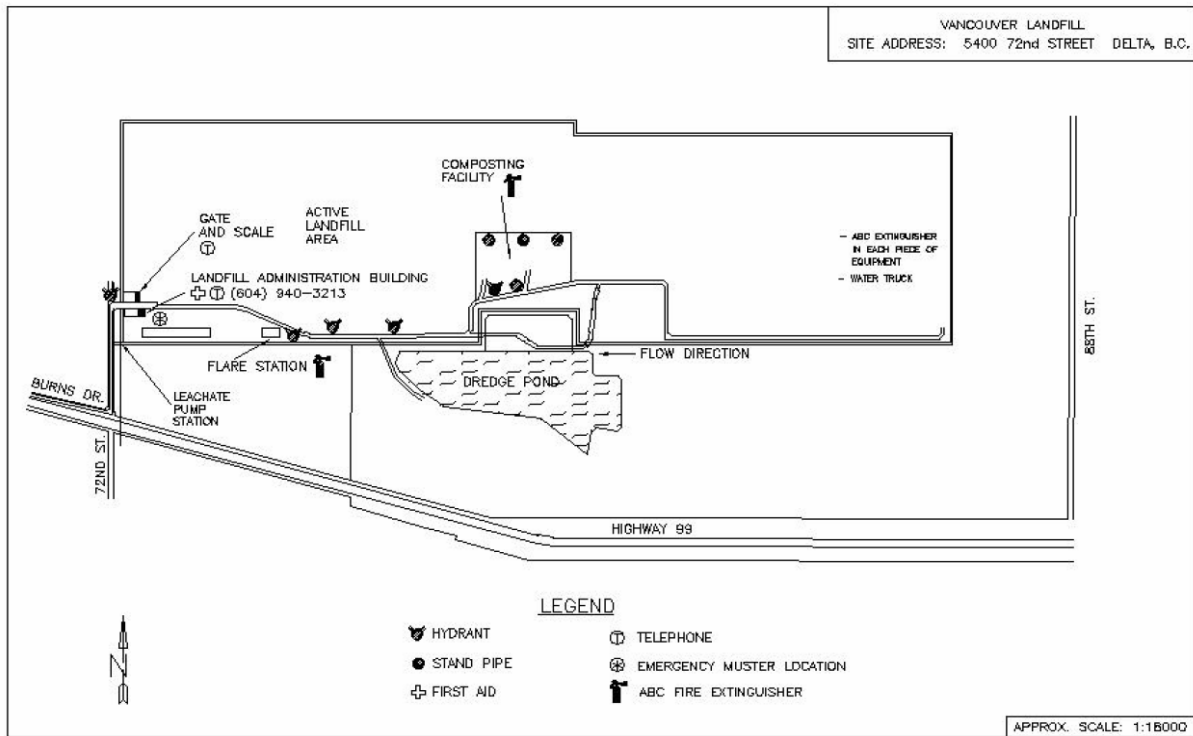
Sept 2008
Sept 2009

SITE SAFETY ORIENTATION / AGREEMENT

The City of Vancouver, Transfer & Landfill Operations Branch requires that all persons working on the Vancouver Landfill (VLF) site receive the following orientation before any work is to begin. The orientation includes an outline of general safety issues, working alone, emergency and first aid procedures, protocols for working near heavy equipment and personal protective equipment requirements. All individuals, understand, agree to comply with, and sign this document in order to have access to or do work on this site.

Sections

1. General Safety Issues
2. Working Alone
3. In The Event of an Emergency
4. First Aid
5. Heavy Duty Equipment
6. Personal Protective Equipment
Legal Terms and Conditions
Statement of Responsibility





VANCOUVER LANDFILL SAFE WORK PROCEDURE

1. GENERAL SAFETY ISSUES
 - The speed limit on the Landfill premises is 30 km/h (20 mph).
 - Smoking anywhere on the site is prohibited.
 - Scavenging is prohibited.
 - The use of cellular phones is not permitted while operating vehicles/equipment. Always move to a safe place out of the way of any equipment or vehicles prior to using a cellular phone or engaging in any other non-mobile activity.
 - All drivers/operators must observe traffic control measures (i.e. stop signs and cones).
 - Be aware of and stay clear of coned off areas. These are to protect you from any hazards.
 - Seatbelts must be worn at all times while vehicles are in motion.
 - Be aware that asbestos is routinely managed at the Landfill. Stay upwind of any yellow bags at the Landfill face.
 - All support workers must sign in and out by completing the "Visitor Sign-in Sheet" located at the Landfill Administration office during regular hours or at the Scalehouse after hours.
2. WORKING ALONE
 - Must sign in and out at the Landfill Administration office and advise reception staff they will be working alone.
 - Have reception staff assign a personal ID number (0010, 0020 or 0030).
 - Follow attached procedures for accessing the Safetyline Mobile Worker Monitoring System.
3. IN THE EVENT OF AN EMERGENCY
 - Report any fires, spills, accidents or other emergencies to the Landfill office immediately (604.940.3213). In the event of an emergency that requires outside assistance, call 911 immediately. The Landfill Manager is responsible for contacting additional authorities as required.
 - Report any health & safety accidents and/or near-miss incidents to the Landfill Office.
 - Your first priority is to warn others and evacuate the immediate area. Do not put yourself in danger.
 - If not directly and helpfully involved, report to the Emergency Assembly Location at the east side of the Landfill Administration building.
 - Do not return to the site until instructed that it is safe.
 - Material Safety Data Sheets are located in Superintendents office.
4. FIRST AID
 - The first aid room is located at the southeast corner of the Landfill Administration building.
 - For emergencies, call 911 (dial "9" first from landlines).
 - Notify the designated First Aid Attendant at 604.603.1655 (VLF First Aid Cell Phone). If no answer, contact the Landfill office at 604.940.3213 to alert the First Aid Attendant.
5. HEAVY EQUIPMENT
 - Do not walk in the active tipping area of the Landfill.
 - Do not move into the vicinity of any vehicle until you have made eye contact with the operator/driver and ensured that he/she is aware of your presence.
 - Do not, at any time, walk behind any piece of heavy equipment. Unless absolutely necessary, remain outside of the swing radius of excavators, approximately 15 metres (50 feet).



VANCOUVER LANDFILL SAFE WORK PROCEDURE

- Always maintain a safe distance between trucks (one truck and trailer length) in the demolition dumping area. End dump style demolition trucks pose an extreme hazard of tipping over on its side when the box is lifted in the air.
 - Remember that people are more mobile than equipment - it is your responsibility to stay out of the way.
 - All equipment must be turned off before fueling.
6. PERSONAL PROTECTIVE EQUIPMENT (PPE)
- The following are necessary while on the site:
 - WCB approved Hi-visibility reflective vest or coveralls.
 - WCB approved safety protective footwear ((heavy-duty, above the ankle, construction-type safety boots with an external triangular green CSA patch). Boots should also be approved as shock-resistant when working on electrical systems (display an external white Ω CSA patch).
 - Also necessary where appropriate:
 - Respirators as per WCB requirements.
 - Hard hats as per WCB requirements.
 - Hearing protection as per WCB requirements.
 - Safety glasses and/or masks as per WCB requirements.
 - Fall protection in situations where a fall of 3 metres (10 feet) or more could occur, or from a lesser height but which represents a higher risk of injury.
 - Other specific equipment where determined necessary or by regulation for the particular situation.
 - Always observe and follow Lockout and Confined Space Entry procedures (when applicable).



VANCOUVER LANDFILL SAFE WORK PROCEDURE

PROCEDURES FOR USING THE SAFETYLINE MOBILE WORKER MONITORING SYSTEM

Users log in to the SafetyLine IVR system at the start of working alone, at assigned intervals during the work, and at the end of working alone. Users, in consultation with their supervisor, should determine the interval period for checking in. The default interval is 60 minutes and may need to be shorter depending upon the risks of the particular task. Users without a personal ID/password will have one assigned by Landfill Reception staff.

To log-in to the SafetyLine IVR system, the user will:

1. phone SafetyLine at **604.299.6266**
2. enter the company ID **51#**
3. enter **personal ID** (as assigned) and #
4. enter **password** (same as ID) and #

The system will respond with a voice message "*not system monitored*".

Support Workers will need to enter their cell phone number by:

1. press **0** (Advanced Menu)
2. press **6**, enter your cell phone number then press #
3. press **1** (to confirm the phone number)
4. press ***** to exit to the main menu

To start system monitoring, all users will need to press **2**, record a voice message stating your work location, then **#** to report ok and ***** to exit.

To check-in during the work, log in to the system as above and at the voice prompt, enter **2** and **#**. If your work location has changed, record a new voice message.

To log-out at the end of work, log in to the system as above and at the voice prompt, enter **5** and **#**; you will hear "*Thank you for using SafetyLine*".

Note: these sequences can be programmed using the speed-dial or one touch button function on most cell phones.

To change the check in period from 1 hour, the user will:

1. press **0** (Advanced Menu)
2. press **4#** (Change your IVR dial out number)
3. enter the **number of minutes** for the desired interval, then #
4. press ***** to exit to the main menu
5. press ***** to exit the system

For more detailed instructions, please refer to the *SafetyLine Mobile Worker Monitoring System User Manual*.

Safety Line Interactive Voice Response System Menu

Main Menu Key 1 Emergency 2 Report OK 3 Status 4 Set Next Report Time 5 End System Monitoring 6 Monitor Menu 0 Advanced Menu # Repeat * Exit SafetyLine		Advanced Menu Key 1 GPS 2 Data 3 Password Change 4 Set Report Interval 5 Record Name 6 Change Your IVR Dial Out No. # Repeat * Return to Main Menu
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**VANCOUVER LANDFILL
SAFE WORK PROCEDURE**

LEGAL TERMS AND CONDITIONS

- You agree that entry to and use of the site is at your own risk and that neither the City of Vancouver, nor its employees or agents will be liable for any loss or injury to person or property whether or not caused by negligence.
- You agree to comply at all times with the above requirements and to follow the instructions of the Landfill Manager, or their designate, and/or the First Aid Attendant at all times.
- You agree to reimburse the City of Vancouver for any and all costs, losses and damage which may be caused by your failure to carry out safe working practices while on the site or to otherwise comply with this Site Safety Orientation/Agreement.
- The terms of this Site Safety Orientation/Agreement are additional to, and not in replacement of any other Landfill agreement between you and the City of Vancouver. However, in the event of any inconsistency between the two, this agreement prevails.

STATEMENT OF RESPONSIBILITY

Name _____

Company _____

Address _____

Telephone _____

I certify that I have read, understood and agree to comply with and be bound by this Site Safety Orientation/Agreement.

Signature

Date

MEMORANDUM

TO: Lynn Belanger, P. Eng.
City of Vancouver Landfill Operations

DATE: May 19, 2005

FR: Evan Alvernaz, CIH
Colin Wong, P. Eng.

JOB NO: 04-1412-218/1000

**RE: SAFETY AWARENESS SHEET / LANDFILL GAS
VANCOUVER LANDFILL, DELTA, BC**

This document summarizes information regarding general health and safety hazards pertaining to landfill gas and associated general safety precautions, at the Vancouver Landfill, 5400 – 72nd Street, Delta, BC.

1.0 HAZARDS

Key potential hazards associated with landfill gas are:

- **Explosions** – landfill gas (LFG) contains methane that is combustible at concentrations of 5% to 15% by volume in air.
- **Oxygen Deficiency** – landfill gas is composed predominantly of methane (approximately 40% to 65%) and carbon dioxide (approximately 30% to 50%). These gases can displace oxygen from a work space resulting in an oxygen deficient atmosphere. Typically, oxygen deficient conditions will only develop in confined spaces, deep depressions and/or as a result of uncontrolled releases of landfill gas.
- **Hydrogen Sulphide** - concentrations as high as 1,000 ppm have been identified in one well on one occasion. The latest data from May 2, 2005 indicated hydrogen sulphide concentrations below 286 ppm in all measured wells; however, hydrogen sulphide concentrations in the ambient environment have typically been identified to be below the detection limit of data logging instruments when used on the site.
- **Volatile Organic Compounds (VOC)** - other VOCs may also be present in landfill gas; however, these compounds have typically been present in trace concentrations. Some of the VOCs identified on site include: benzene, xylene, toluene and vinyl chloride.

Golder Associates

City of Vancouver
Lynn Belanger, P.Eng

- 2 -

May 19, 2005
04-1412-218/1000

2.0 OCCURRENCE OF LANDFILL GAS

Landfill gas exists in the landfill gas collection system and in leachate and condensate collection system piping. It can seep through the landfill cover into the atmosphere or it can be forced into the atmosphere from leaks when under pressure (within the landfill gas flare station compound and in buried transmission pipes leading to the Powerhouse). The majority of the landfill gas is collected under negative pressure by the landfill gas collection system, which is comprised of wells and headers from different regions of the landfill. Each of these regions has landfill gas with its own variable characteristics. Some known areas where there may be elevated levels of landfill gas include: manifold boxes, areas adjacent to lateral collection lines, condensate traps, soil depressions and leachate ditches.

3.0 SAFETY PRECAUTIONS

The following safety precautions must be followed with respect to landfill gas:

1. Do not smoke anywhere on the landfill. Open flames are only permitted on the landfill with prior written permission from appropriate Landfill personnel.
2. Comply Workers' Compensation Board of British Columbia regulations when entering any confined space, depression, or potentially poorly ventilated areas. Adhere to the precautions and procedures identified in Table 1: Important LFG Characteristics and Facts.
3. Ensure that all gas detection equipment is in good working order and that it is bump tested daily prior to use. If bump testing identifies gas detection equipment not be working within its tolerance limits or if the equipment is outside of its calibration period, it must be removed from service immediately. Personnel must be trained in the use and limitations of the gas detection equipment used and must use it in accordance with Vancouver Landfill procedures.
4. Do not access the fenced enclosure at the flare station or conduct any work around the landfill gas control system without a personal gas monitor (able to monitor LEL, oxygen and hydrogen sulphide concentrations) and hearing protection. If the personal gas monitor alarm sounds, evacuate the area immediately and notify appropriate Landfill personnel.

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City of Vancouver
Lynn Belanger, P.Eng

- 3 -

May 19, 2005
04-1412-218/1000

5. If possible, stand upwind of wells or any other landfill gas works when conducting work in or around the landfill gas control system. If an accidental or uncontrolled release of landfill gas is believed to have occurred near your work area, attempt to remove yourself from the area by taking a path that is crosswind from the source and attempt to get upwind if you have determined it is safe to do so.
6. Use caution when conducting work within manifold boxes. Personal gas monitors should be used to determine gas concentrations within the manifold boxes prior to work being conducted. If the monitor alarm sounds, allow the manifold box to ventilate prior to rechecking gas concentrations. Work should not proceed until gas concentrations are below alarm levels.
7. If a hydrogen sulphide odour is detected and you do not have a hydrogen sulphide monitor in good working condition, you should remove yourself from the area of concern and notify appropriate Landfill personnel.
8. Follow all other Vancouver Landfill safety precautions, as appropriate.

Golder Associates

City of Vancouver
Lynn Belanger, P.Eng

- 4 -

May 19, 2005
04-1412-218/1000

TABLE 1: Important LFG Characteristics and Facts

Compound	Important Gas Concentrations	Comments
Methane	Less than 10% ⁽¹⁾	<ul style="list-style-type: none"> Methane gas concentrations are to be maintained at less than 10% of the lower explosive limit (LEL) at all times.
Oxygen	19.5% to 23.5% ⁽¹⁾	<ul style="list-style-type: none"> Oxygen concentrations below 19.5% represent an oxygen deficient atmosphere. The ambient atmosphere has an oxygen concentration of 20.9%. Oxygen concentrations above 23.5% indicate the presence of an oxygen rich environment and represent a fire hazard. Oxygen rich environments should not typically exist at the landfill. These conditions typically only occur when a work process introduces pure oxygen, such as welding. If oxygen concentrations are less than 19.5% or above 23.5%, all work should stop and personnel should leave the work area.
Hydrogen Sulphide	Less than 5 ppm ⁽¹⁾	<ul style="list-style-type: none"> The immediately dangerous to life and health (IDLH) concentration of hydrogen sulphide has been identified to be 100 ppm. The Workers' Compensation Board of British Columbia (WCB BC) ceiling limit for hydrogen sulphide is 10 ppm. Hydrogen sulphide concentrations should be maintained at less than 5 ppm. If hydrogen sulphide concentrations exceed this level, work procedures should be reviewed to ensure that they adequately protect site personnel. At elevated concentrations hydrogen sulphide gas will deaden your sense of smell within minutes. You can smell hydrogen sulphide at concentrations less than 1 ppm. The smell is often described as being like rotten eggs. Ambient levels have been identified to typically be below the detection limit of data logging instruments.

Note: (1) Personal gas monitors must be set to alarm when gas concentrations exceed the gas concentrations identified in Table 1. If the monitor alarm sounds, evacuate the work area immediately and notify appropriate Landfill personnel.

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Hazard	Location	Yes	N/A	Mitigation Measure
Mobile Equipment/ Traffic	<ul style="list-style-type: none"> All locations 			Landfill Traffic Management and Operating Mobile Equipment Safe Work Procedure; Landfill Personal Protective Equipment Safe Work Procedure - High visibility vest
Needle Sticks/Blood Borne Pathogens	<ul style="list-style-type: none"> In garbage Potentially on wheels and tracks of equip. 			Landfill Cleaning Industrial Equipment, General Cleaning and Hygiene, Blood and Body Fluid Exposure, and Control Measures Against Exposure to Microbiological Agents Safe Work Procedures; Landfill Personal Protective Equipment Safe Work Procedure - Gloves
Noise	<ul style="list-style-type: none"> Job Specific 			Landfill Personal Protective Equipment Safe Work Procedure - Hearing protection
Power Outage	<ul style="list-style-type: none"> Administration building Maxim Power trailer 			Emergency lighting
Respiratory risks	<ul style="list-style-type: none"> Composting facility Landfill active face 			Landfill Control Measures Against Exposure to Microbiological Agents Safe Work Procedure
Spills (known and unknown products)	<ul style="list-style-type: none"> Landfill active face Residential Drop Off Area 			Landfill Management of Household Hazardous Waste Safe Work Procedure; Landfill Emergency Response Plan
Trip/Slip Hazards	<ul style="list-style-type: none"> All locations 			Landfill Personal Protective Equipment Safe Work Procedure - over the ankle steel toe boots - CSA triangle
Violence	<ul style="list-style-type: none"> Scalehouse Residential Drop Off Area Administration buildings 			Landfill Scalehouse Emergency Response and Violence in the Workplace Safe Work Procedures
Working Alone	<ul style="list-style-type: none"> Remote areas of site 			Landfill Working Alone Safe Work Procedure; Landfill Emergency Response Plan



Branch: Vancouver Landfill	Revision Date: Sept. 2009
Project:	Schedule:

Hazard	Location	Yes	N/A	Mitigation Measure
Asbestos	<ul style="list-style-type: none"> Residential Drop Off Area asbestos bin Asbestos trench Buried throughout Landfill site - most locations not identified 			Landfill Respirator Use Safe Work Procedure; Landfill Emergency Response Plan; Landfill Asbestos Management Safe Work Procedure
Compressed Gas Cylinder Release	<ul style="list-style-type: none"> Residential Drop Off Area 			Safe Work Procedure for Compressed Gas Cylinders; Landfill Emergency Response Plan
Confined Spaces	<ul style="list-style-type: none"> As marked 			City of Vancouver Confined Space Entry Procedures; Landfill Confined Space Entry Safe Work Procedure
Electrical	<ul style="list-style-type: none"> Lockout procedures required Overhead power lines Buried utilities 			Landfill Lockout Safe Work Procedure; Lockout Safe Work Procedures for Specific Equipment; Qualified electrician may be required; Identification of overhead power lines in work area during pre-job meeting
Eye Hazards	<ul style="list-style-type: none"> Air borne particles - all locations Hosing off the deck 			Landfill Personal Protective Equipment Safe Work Procedure - Eye protection
Fall Protection	<ul style="list-style-type: none"> Job Specific 			WorkSafe BC requirements; Landfill Fall Protection Safe Work Procedure
Fires/Explosion	<ul style="list-style-type: none"> Landfill active face Composting facility Flare station Equipment 			Landfill Emergency Response Plan
Lifting Hazards	<ul style="list-style-type: none"> All locations 			WorkSafe BC requirements
Landfill gas - methane (LEL), oxygen deficiency, hydrogen sulphide	<ul style="list-style-type: none"> Flare station (positive pressure) Landfill gas piping system above/below grade (negative pressure) Confined spaces, surface depressions, ditches 			Landfill Gas Awareness Sheet; Landfill Gas Health & Safety Plan; Landfill Emergency Response Plan
Medical Emergency	<ul style="list-style-type: none"> All locations 			Landfill Emergency Response and First Aid Response Safe Work Procedures; Landfill Emergency Response Plan