

SERVICES AGREEMENT

OTTAWA LIGHT RAIL TRANSIT PROJECT

SERVICES AGREEMENT NO. 001-SA-01

DATED
March 15, 2013

BETWEEN

OLRT CONSTRUCTORS

AND

RTGE JOINT VENTURE

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SERVICES AGREEMENT

This Services Agreement (this "Agreement") made as of the 15th day of March, 2013 among:

OLRT CONSTRUCTORS, an unincorporated joint venture of SNC-LAVALIN CONSTRUCTORS (PACIFIC) INC. ("SLCP"), a corporation validly existing under the laws of Canada, having an office at 195 West Mall, Toronto Ontario M9C 5K1, DRAGADOS CANADA, INC. ("Dragados"), a corporation validly existing under the laws of Canada having an office at 150 King St. W. Suite 2103 Toronto, Ontario M5H 1J9, and ELLISDON CORPORATION ("EllisDon"), a corporation validly existing under the laws of Ontario, having an office at 89 Queensway Avenue West, Suite 800, Mississauga, Ontario, L5B 2V2

(collectively referred to as the "Prime Contractor")

AND:

RTGE JOINT VENTURE, an unincorporated joint venture of SNC-LAVALIN INC. ("SNC Engineering") a corporation validly existing under the laws of Canada, having an office at 1800-1075 West Georgia St., Vancouver, British Columbia V6E 3C9, and MMM GROUP LIMITED ("MMM"), a company validly existing under the laws of Ontario having an office at 100 Commerce Valley Drive West, Thornhill, Ontario, L3T 0A1

(collectively referred to as the "Service Provider")

(Prime Contractor together with the Service Provider, the "Parties" and, individually, and any one of them, a "Party")

Service Provider

WHEREAS:

- A. The City of Ottawa ("**Ottawa**") has entered into an agreement dated February 12, 2013 (the "**Project Agreement**") with Rideau Transit Group General Partnership (the "**Project Co**") for the design, build, finance, operation and maintenance of the Ottawa Light Rail Transit – Tunney's Pasture to Blair Station located in Ontario, Canada (the "**Project**");
- B. The Project Co has entered into an agreement dated February 12, 2013 (the "**Prime Contract**") with the Prime Contractor for the design and build activities (the "**Prime Contract Work**") of the Project;
- C. The Prime Contract Work includes the Services to be performed under this Agreement, as defined in Article A-1 of this Agreement and as more fully described in General Condition 2.0 of the General Conditions to the Services Agreement (the "**GC**")s and Appendix B – Scope of Services (collectively, the "**Services**");
- D. The Service Provider has agreed with the Prime Contractor to perform the Services and supply all necessary resources related thereto in accordance with the terms and conditions of this Agreement; and

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- E. The Service Provider and the Prime Contractor for themselves, their heirs, executors, administrators, successors and assigns do hereby agree to the full performance of the covenants herein contained.

IN CONSIDERATION OF the premises, mutual covenants and conditions set out in this Agreement, the Parties covenant and agree with each other as follows:

ARTICLE A-1 THE SERVICES

- 1.1 Except as specifically excluded in Appendix B (Scope of Services) and subject to the terms of this Agreement, the Service Provider agrees to furnish in a timely manner all professional, technical and supervisory personnel, services, equipment, materials and supplies necessary to prepare and to provide the design concept, the design, and the plans and specifications, including all related work, necessary to enable the Prime Contractor to perform the construction specified in the Prime Contract, herein called the "Services". Without limiting the generality of the foregoing, the Services include the Scope of Services described in Appendix B attached hereto.

ARTICLE A-2 PAYMENT

- 2.1 The Prime Contractor shall pay the Service Provider for the performance of the Services as specified herein, the fixed lump sum of \$ Component pricing Canadian Dollars (the "Contract Price"), exclusive of provincial sales tax, GST or HST (as applicable), and subject to changes, additions and deductions only as provided in this Agreement, at the times and in the manner prescribed in Appendix D – Price and Payment.

ARTICLE A-3 GENERAL

- 3.1 This Agreement is made up only of the following documents, which are meant to complement and to be read in conjunction with one another:
- the present instrument;
 - General Conditions to the Services Agreement;
 - Appendix A – Special Conditions to the Services Agreement;
 - Appendix B – Scope of Services;
 - Appendix C – Schedule Dates;
 - Appendix D – Price and Payment;
 - All other appendices to the Agreement; and
 - The Prime Contract.
- 3.2 The appendices attached to this Agreement are incorporated by reference and form an integral part of this Agreement.
- 3.3 This Agreement contains the entire agreement between the Parties and supersedes in its entirety any previous agreement and/or communications between the Parties. No representation, inducement, promises or agreement not specifically set out herein shall be of any force and effect.
- 3.4 In case of conflict between the documents comprising this Agreement, the priority of the

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documents shall be in accordance with the sequence in which they are listed hereunder:

- the present instrument;
- Appendix A – Special Conditions to the Services Agreement;
- Appendix B – Scope of Services;
- General Conditions to the Services Agreement; and,
- All other appendices to this Agreement; and
- Prime Contract, to the extent it is applicable to the Services.

3.5 Each of the Parties shall, at the request of the other Party, execute and deliver any further documents and do all acts and things as that Party may reasonably require in order to carry out the true intent and meaning of this Agreement.

ARTICLE A-4 EFFECTIVE DATE

4.1 This Agreement shall be effective from the Commencement Date (as defined below) and shall remain in full force and effect for the Term (as defined below), unless earlier terminated pursuant to the provisions hereof.

ARTICLE A-5 PRIME CONTRACT

5.1 Service Provider's knowledge of the Prime Contract

The Prime Contractor shall provide the Service Provider with a copy of the Prime Contract, less details of the Prime Contractor's prices or other Prime Contractor confidential information. The Service Provider shall be deemed to have full knowledge of the provisions of the Prime Contract (less such prices and confidential information not disclosed to the Service Provider).

5.2 Service Provider's obligations and responsibilities in relation to the Work of the Prime Contract

Except as otherwise provided in this Agreement, the requirements, terms and conditions of the Prime Contract as far as it is applicable to the Services, shall be binding upon the Service Provider and Prime Contractor as if the references to the Prime Contractor therein have been replaced by references to the Service Provider and references to Project Co therein have been replaced by reference to the Prime Contractor. Save where the provisions of this Agreement expressly provide otherwise, the Service Provider shall so execute and complete the Services and remedy any and all defects therein in accordance with the standard of care set out in the General Conditions and so that no act or omission of it in relation thereto shall constitute, cause or contribute to any breach of the Prime Contractor of any of its obligations under the Prime Contract. The Service Provider shall, save as aforesaid and subject to the terms of this Agreement, assume and perform hereunder all the obligations, duties, responsibilities and liabilities of the Prime Contractor under the Prime Contract in relation to the Services and the Prime Contractor shall, save as aforesaid and subject to the terms of this Agreement, assume and perform hereunder all the obligations, duties, responsibilities and liabilities of Project Co under the Prime Contract in relation to the Services.

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The Service Provider shall be responsible for any act, omission to act, default or negligence for any of its Subcontractors, employees and agents in relation to the performance of this Agreement as fully as if such act, omission to act, default or negligence were that of the Service Provider. The Service Provider represents and warrants to the Prime Contractor that all of its Subcontractors, employees and agents shall perform their portion of the Services in accordance with this Agreement and all applicable provisions of the Prime Contract.

The Prime Contractor shall be responsible for any act, omission to act, default or negligence for any of its subcontractors (other than Service Provider), employees and agents in relation to the performance of this Agreement and, in the case of a subcontractor (other than Service Provider), the performance of the subcontractor's subcontract as it relates to this Agreement as fully as if such act, omission to act, default or negligence were that of the Prime Contractor.

ARTICLE A-6 COUNTERPARTS

- 6.1 This Agreement may be executed in several counterparts, including by facsimile (or other similar electronic means), each of which when executed shall be deemed to be an original and such counterparts together shall be but one and the same instrument.

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GENERAL CONDITIONS TO THE SERVICES AGREEMENT

1.0 INTERPRETATION

1.1 Definitions. The following words and expressions shall have the following meanings except where the context otherwise requires:

- i. **"Affiliate"** has the meaning given to it by the *Canada Business Corporations Act*.
- ii. **"Agreement"** means this Services Agreement, including the appendices attached to this Services Agreement.
- iii. **"Commencement Date"** has the meaning given to it in Appendix C – Schedule Dates.
- iv. **"Construction Schedule"** has the meaning given to it in Appendix C – Schedule Dates.
- v. **"Contract Price"** has the meaning given to it in Article A-2 of this Agreement and determined pursuant to Appendix B.
- vi. **"Day"** or **"days"** means calendar days unless specifically noted otherwise.
- vii. **"Dispute Resolution"** has the meaning given to it in GC 8.0.
- viii. **"Force Majeure"** has the meaning given to it in the Project Agreement.
- ix. **"GC"** has the meaning given to it in the Recitals.
- x. **"Information"** has the meaning given to it in GC 2.6.1.
- xi. **"Milestone"** means any one of the nine milestones set out in the left column of Section 3.0 – Milestone Dates and Definitions of Appendix C – Schedule Dates, inclusive of the assumptions and deliverables set out for such milestone, and **"Milestones"** means one or more of them.
- xii. **"Ottawa"** has the meaning given to it in the Recitals.
- xiii. **"Parties"** means the Prime Contractor and the Service Provider; **"Party"** means any one of them.
- xiv. **"Prime Contract"** has the meaning given to it in the Recitals.
- xv. **"Project"** has the meaning given to it in the Recitals.
- xvi. **"Project Agreement"** has the meaning given to it in the Recitals.
- xvii. **"Project Co"** has the meaning given to it in the Recitals.
- xviii. **"Proposal Services Agreement"** means the agreement between the Prime Contractor and the Service Provider dated May 2, 2012 pursuant to which the Service Provider provided certain services in furtherance of the Prime Contractor's efforts to obtain the Project.
- xix. **"SC"** means the Special Conditions to the Services Agreement.
- xx. **"Services"** has the meaning given to it in the Recitals.
- xxi. **"Site"** means the location for which the Project is being undertaken.

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- xxii. "**Subcontractor**" means any entity to which, with the Prime Contractor's prior written consent, the Service Provider subcontracts part of the Services and includes all entities Service Provider has, as at the date of this Agreement, previously indicated to Prime Contractor will be Subcontractors to Service Provider.
- xxiii. "**Taxes and Charges**" has the meaning given to it in GC 4.3.
- xxiv. "**Term**" has the meaning given to it in Appendix C – Schedule Dates.
- xxv. "**Work**" means all work and services required by the Prime Contract.

Any words or phrases defined elsewhere in this Agreement shall have the particular meaning assigned thereto.

All capitalized terms otherwise not defined herein shall take on their meaning as so defined in the Prime Contract.

- 1.2 Headings. The insertion of headings is for convenience of reference only and shall not affect or be used in the interpretation of this Agreement.
- 1.3 Gender. The singular includes the plural, the masculine includes the feminine, and vice versa where the context so requires.
- 1.4 Severability. Any provision of this Agreement which is, becomes, or is declared illegal, invalid or unenforceable, shall be severed from this Agreement and shall not affect or impair the remaining provisions of this Agreement.
- 1.5 Amendments. Subject to GC 2.1.3, no modification of this Agreement shall be binding unless duly executed in writing by the Parties.
- 1.6 Waiver. No waiver by a Party of the performance of any provisions of this Agreement shall be binding upon that Party unless such waiver is expressed in writing by that Party and any waiver so given shall extend only to the particular performance so waived and shall not limit or affect any rights of that Party with respect to any other or future performance of any provision of this Agreement.
- 1.7 Governing Law. This Agreement shall be governed by, and interpreted in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.
- 1.8 Currency. Unless stated otherwise, all amounts in this Agreement are in the Canadian currency.
- 1.9 Enurement. This Agreement enures to the benefit of the Parties and their successors and permitted assigns.
- 1.10 Joint Venture. Each party to the Prime Contractor shall be jointly and severally liable for all obligations of the Prime Contractor and each party to the Service Provider shall be jointly and severally liable for all obligations of the Service Provider.

2.0 OBLIGATIONS OF THE SERVICE PROVIDER

2.1 Provision of Services.

- 2.1.1 As from the Commencement Date, the Service Provider shall render the Services or such other services as may from time to time be agreed between the Parties. Notwithstanding the preceding sentence, any Services or other services provided by the Service Provider in furtherance of the Project prior to the Commencement Date shall be deemed to have

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been undertaken and provided pursuant to the terms and conditions of this Agreement; provided however that notwithstanding any other provision of this Agreement the required standard of care of Service Provider in respect of such Services and services performed prior to the Commencement Date shall be the standard of care provided for in the applicable prior agreement including the Proposal Service Agreement under which such services and Services were performed. And provided further that in respect of insurance to be provided by Service Provider only the insurance provided under this Agreement will respond to the Services provided no matter when the Services were performed, including in respect of such prior services and Services.

- 2.1.2 The Service Provider shall render the Services within the schedule and to achieve the Milestones on or before the dates set out opposite them in Section 3.0 of Appendix C – Schedule Dates, as amended from time to time. The Service Provider acknowledges and agrees that the schedule and Milestones required by Appendix C – Schedule Dates is based, in part, upon the schedule required by the Prime Contract and failure of the Service Provider to adhere to the schedule and Milestones may result in the Prime Contractor incurring damages (including liquidated damages) and other costs. The Parties acknowledge and agree that in all respects time shall be of the essence of this Agreement. It is acknowledged that the Service Provider's schedule is based on compliance by the Prime Contractor and any other party for which it is responsible complying with the documented review and approval protocols provided in Appendix A.
- 2.1.3 In the event Ottawa or Project Co changes the Work to be provided under the Prime Contract including in respect of scope, schedule, requirements for performance, procedures for or nature of the Work, or otherwise, the Service Provider may be called upon to perform such expanded or different services than those set forth in Appendix B – Scope of Services. The Service Provider shall, if required by the Prime Contractor, perform such changed services and such services shall, subject to the applicable change provisions, be deemed Services. All such changes shall be processed through the change control procedures of the Prime Contract. In the event such changes results in increased cost, time to perform, or risk of the Services, the Prime Contractor will take reasonable steps to amend the Prime Contract, through change order or otherwise, to appropriately raise the compensation payable under the Prime Contract, to extend schedule and obtain any other applicable relief. The Parties acknowledge and agree that the principle of "equivalent project relief" shall apply to this Agreement in the same manner as under the Prime Contract and that, subject to such equivalent project relief provisions, in no event shall the Service Provider be entitled to compensation or relief in excess of what the Prime Contractor is able to negotiate with Project Co under the Prime Contract. The Service Provider and the Prime Contractor shall promptly make a modification to this Agreement upon execution of the amendment between Project Co and the Prime Contractor which effects the change in scope of Services to be provided under this Agreement and compensation.

Without limiting Prime Contractor's obligations with respect to changes, Service Provider (i) shall comply with the Variation Procedure (as defined under the Prime Contract) to the extent that the Variation Procedure requires Prime Contractor to minimize the cost and impact of Variations (as defined under the Prime Contract), including Variations as to scope of the Works or Maintenance Services (as such terms are defined under the Prime Contract) and (ii) shall include in each subcontract, and shall cause each of its subcontractors to comply with, the Variation Procedure, to the extent that the Variation

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Procedure requires Prime Contractor to minimize the cost and impact of Variations, including Variations as to scope of the Works or Maintenance Services.

Changes in the scope, schedule, requirements for performance, procedures for or nature of or other aspect of the Services initiated by the Prime Contractor or arising due to any person, entity or circumstance for which Service Provider is not responsible, including Prime Contractor's other subcontractors) shall be dealt with as set out in GC 2.1.5.

- 2.1.4 The Service Provider acknowledges that the Prime Contractor has the right from time to time to review and approve the performance of the Services and to impose reasonable specific requirements and general procedures with which the Service Provider must comply. Without limiting the generality of the foregoing, the Prime Contractor may require the Service Provider to obtain the Prime Contractor's approval of any particular stage of the Services before the Service Provider continues to the next stage.

The Prime Contractor in the exercise of its rights under this GC 2.1.4 must not materially impair or delay the Service Provider in its performance of the Services, and any such material impairment or delay shall result in an equitable adjustment in schedule and Contract Price, as applicable.

For clarity, this GC 2.1.4 does not apply to any changes, impairment or delay that fall within the scope of GC 2.1.3.

- 2.1.5 If Prime Contractor wishes to change the Services of its own accord or a change is required pursuant to Section 2.1.3 but not as a result of a corresponding change of the Work by Ottawa or Project Co then, subject to the design development, review and change provisions contained in the Special Conditions, the following shall apply:

2.1.5.1 All changes shall be ordered by Prime Contractor in writing either by way of Change Order or Change Directive. Prime Contractor shall not be liable to make payment for any changes to the Services that have not been ordered in writing.

2.1.5.2 Except as expressly agreed, all changes shall be paid for on an all-inclusive fixed fee lump sum basis. Where Prime Contractor and Service Provider agree that a lump sum is not an appropriate basis for a particular change, the fee for the change shall be based on the staff charge rates set out in Appendix D and any additional reasonable expenses and disbursements shall be charged at cost unless otherwise provided for in Appendix D.

2.1.5.3 The Parties will negotiate in good faith to determine the fixed fee. The prices offered by Service Provider shall not exceed those that Service Provider would customarily offer its best client for services of a similar nature and magnitude. Any increase or decrease in the Contract Price will be determined by using the staff charge rates which are outlined in Appendix D and shall be agreed by Prime Contractor. Any additional proven reasonable expenses will be charged at cost unless otherwise provided for in Appendix D.

2.1.5.4 A separate fixed fee will be determined for each change required by Prime Contractor pursuant to this GC 2.1.5.

2.1.5.5 The Parties shall act in a prompt and timely manner to negotiate and administer the procedure set out herein and Service Provider shall not make any changes to the scope of the work included in the Services or perform any changes in Services to be provided (addition or reduction) of any kind without first obtaining a properly executed written change order signed by the Parties specifying the

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agreed amount to be paid to Service Provider in respect of the change in services and any agreed adjustment to the time for performance of the Services (a "Change Order").

- 2.1.5.6 Where the Parties cannot reach an agreement on the adjustment of the Contract Price within 10 Business Days of the Prime Contractor's providing written notice of the proposed change, the Prime Contractor may contract with a third party for the execution of the proposed change and any related services and the Service Provider will be entitled to claim a Change Order for work required to integrate the third-party work into the design and to coordinate with such third party in relation to the third-party work and for any other impact on the remaining Services.
- 2.1.5.7 The Prime Contractor may direct the Service Provider to implement a change prior to agreement on the increase or decrease of the Contract Price through a written directive (a "Change Directive"). After the issuance of the Change Directive, the Parties will act in a prompt and timely manner to negotiate the modification of the Contract Price in accordance with the procedure set out herein. If no agreement on the modification of the Contract Price is reached within [20] Business Days, either Party may refer the matter to the dispute resolution procedure under GC 8 herein and pending settlement of such dispute Service Provider shall invoice Prime Contractor for such Change Directive on a time and material basis utilizing the staff charge rates which are outlined in Appendix D.

2.2 Standard of Performance.

- 2.2.1 The Service Provider shall carry out its obligations under this Agreement in conformity with the standard of care, skill and diligence normally provided by a reasonable and competent professional person in the performance of similar services at the time and place the Services are being provided, in accordance with the terms and conditions of this Agreement and in full compliance with all applicable laws. The Service Provider shall provide a design that will take account of the construction methods and equipment intended to be used by the Prime Contractor and the Prime Contractor's proposed subcontractors which have been made known to the Service Provider at the time such design is carried out and shall use customarily accepted professional practices and standards in rendering the Services. The Service Provider shall give the Prime Contractor the full benefit of its skills, experience, knowledge and expertise.
- 2.2.2 The Service Provider shall immediately correct at its own cost and expense, upon written request of the Prime Contractor to that effect and subject to the terms of this Agreement, any Services not in conformity with the terms and conditions of this Agreement. Corrections shall be made diligently in accordance with the terms and conditions of this Agreement, failing which the Prime Contractor may perform the corrections (either itself or through a third party), bill the reasonable costs thereof to the Service Provider and set-off the same against any amount owing to the Service Provider.
- 2.3 Faithful Advisor. The Service Provider shall always act as a faithful advisor to the Prime Contractor in its performance of the Services.
- 2.4 Conflict of Interest.
- 2.4.1 The Service Provider shall inform the Prime Contractor immediately in writing of any situation, event or mandate confided by a third party, and which as a result becomes

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known to any employee, officer or director of the Service Provider who are involved or have involvement with the Provision of the Services, which could potentially cause, directly or indirectly, conflict with the Prime Contractor's interest in connection with the Project.

2.4.2 In the event that the Service Provider notifies the Prime Contractor, or the Prime Contractor notifies the Service Provider, of a situation, event or mandate described in GC 2.4.1 which involves the Service Provider, its Subconsultants or any of their officers, directors, employees or agents, the Service Provider acknowledges and agrees that the Prime Contractor may, acting reasonably, suspend or terminate this Agreement within 20 days of such notification, or such longer period as may be agreed to by the Parties, if the conflict persists. The provisions of GC 6.2, with the exception of GC 6.2.4, are applicable to give effect to this GC 2.4.2, and the Prime Contractor reserves all its rights, recourses and remedies against the Service Provider for any and all damages resulting from the Service Provider's breach of its obligations under GC 2.4.1 (but only to the extent the conflict involves the Service Provider, its Subconsultants or any of their officers, directors, employees or agents) or GC 2.4.2 or the suspension or termination of this Agreement in accordance with this GC 2.4.

2.5 Exclusivity. The Service Provider commits on behalf of itself and its affiliates to deal with the Prime Contractor on an exclusive basis and not to undertake any work or services for or enter into any negotiations, understanding or agreements with any other entity with respect to the Project. Excluded from this provision shall be the Services Provider or an affiliate's interest in Project Co and its role in management of Project Co.

2.6 Confidentiality.

2.6.1 The Service Provider will comply with any confidentiality provisions of the Project Agreement and the Prime Contract, on a back-to-back basis, with respect to the disclosure of information that is governed by those agreements.

Without limiting the applicability or otherwise abrogating in any manner whatsoever the above agreement respecting confidentiality or non-disclosure of information or any such agreement previously entered into by the Parties, during the Term and for a period of ten (10) years thereafter, the Service Provider shall, and shall cause its Subcontractors, employees and agents to hold in confidence and not disclose, whether directly or indirectly, to any third party:

- (a) any information, materials or documents concerning Ottawa, Project Co or the Project provided to the Service Provider, whether directly or indirectly, by Ottawa, Project Co, the Prime Contractor or their respective affiliates, subsidiaries, employees or agents;
- (b) any information, materials or documents concerning the affairs of the Prime Contractor, its shareholders, its affiliates and their respective businesses, operations, properties, assets and liabilities, including without limitation, any information relating to business plans, inventions, know-how, processes, methods, customers, suppliers, financial and statistical data; and
- (c) all records of the Service Provider, including without limitation, data, reports, studies, drawings, plans, specifications, guidelines, documents, analyses, test results, interpretations, calculations and any other records generated or developed in connection with the Services

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(all such information, materials, documents and records, collectively, the "Information").

- 2.6.2 During the Term and for a period of ten (10) years thereafter, the Service Provider shall not use the Information for its own purposes or in connection with any work or services it may undertake for a third party. The Service Provider shall cause any Subcontractor it hires to perform part of the Services to subscribe to the obligations pursuant to this GC 2.6.
- 2.6.3 The confidentiality obligations of the Service Provider and its Subcontractors pursuant to this GC 2.6 shall not apply to any Information which:
- (a) is prior to the Commencement Date of the Services, or earlier commencement of the Services as provided by GC 2.1, in the possession of the Service Provider without confidentiality obligations;
 - (b) now or hereafter becomes part of the public domain through no act or omission on the part of the Service Provider or the directors, officers, employees or agents of the Service Provider;
 - (c) is furnished to the Service Provider by any person lawfully in possession of that Information and the Service Provider has no obligations of confidentiality with respect to that Information;
 - (d) was independently developed by any employee or agent of the Service Provider who has not made use of or had access to the Information; or
 - (e) disclosure of which is compelled or ordered by a court of law of a competent jurisdiction.
- 2.6.4 Notwithstanding any provision of this Agreement, the Service Provider shall not, at any time during the life of this Agreement or at any time thereafter, use, discuss or disclose to a third party a trade secret of the Prime Contractor or its Affiliates.

2.7 Ownership of Information and Intellectual Property

- 2.7.1 Service Provider acknowledges the requirements of the Project Agreement in respect of Intellectual Property and Intellectual Property Rights.

Service Provider will or will procure the transfer, assignment or licence, as applicable, of all but only such limited intellectual property and intellectual property rights in respect of the Services to Primary Contractor as are strictly required by the Project Agreement to be transferred, assigned or licenced to the Client, Project Co or Primary Contractor in respect of the Services, and only to such extent, for the limited purposes and subject to the same restrictions, as are expressly required or provided by the Project Agreement.

The cost of any escrow arrangements required by the Project Agreement shall be the responsibility of Prime Contractor and not Service Provider.

To the extent not expressly prohibited by the Project Agreement, Service Provider shall retain and this Service Agreement shall constitute an irrevocable, royalty free, worldwide, perpetual licence to use, transfer and commercialize in any manner the work product and any and all intellectual property and intellectual property rights licenced, assigned or transferred from Service Provider to Primary Contractor.

- 2.7.2 Subject to the foregoing GC 2.7.1, by entering into this Agreement or otherwise communicating to the Prime Contractor on matters relating to the Project, and for good and valuable consideration receipt of which is acknowledged, the Service Provider agrees

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to hold in trust for the right and benefit of the Prime Contractor and hereby transfers and assigns unto the Prime Contractor right and title to the part of the Project Data, the Jointly Developed Materials and Intellectual Property owned, licensed or provided by the Service Provider the "**Service Provider Assigned Intellectual Property**" to the extent necessary for Prime Contractor to meet its obligations under the Prime Contract.

The Service Provider covenants to the Prime Contractor that it will become the owner or licensee of the Service Provider Assigned Intellectual Property rights as they arise from time to time and accordingly it will become qualified to assign or license, as applicable, the Service Provider Assigned Intellectual Property in favour of the Prime Contractor. Subject to GC 2.7.1 the Service Provider hereby waives its own moral rights in and to the Service Provider Assigned Intellectual Property rights in and to the Services, and will obtain from its employees and contractors assignments and waivers of all their right, title and interests, including the Service Provider Assigned Intellectual Property Rights in and to the Services. In the event that any Service Provider Assigned Intellectual Property is subsequently re-used or modified in any material respect, without the prior written consent of the Service Provider, by the Prime Contractor or any party to which it has assigned or licensed the Service Provider Assigned Intellectual Property Rights or any subsequent assignee or licensee of any such party of any tier, the Prime Contractor will indemnify the Service Provider in respect of any claim resulting from such unauthorized re-use or modification. Without limiting any other provision of this Agreement, Prime Contractor shall procure for Service Provider through the Prime Contract the benefit in applicable circumstances of any indemnity or hold harmless provisions from Ottawa that are for the benefit of Project Co under the Project Agreement to the extent applicable to Service Provider Assigned Intellectual Property.

- 2.7.3 The Service Provider agrees to apply for registration for patents of Intellectual Property rights, to execute any documents, patents for any new Service Provider Assigned Intellectual Property and perform any acts as is reasonable and proper, within a reasonable time, requested by the Prime Contractor to give effect to this GC 2.7, at the Prime Contractor's expense.
- 2.7.4 For greater certainty the rights of the Prime Contractor hereunder include, but are not limited to, the right to design, construct, operate, maintain, copy, execute, process, translate and incorporate with other materials for the Project using Service Provider Assigned Intellectual Property without obtaining the further consent of the Service Provider.
- 2.7.5 The Service Provider hereby indemnifies the Prime Contractor and its directors, officers, employees, agents and advisors, and hereby agrees to hold them harmless against all claims, suits, proceedings, demands and actions arising out of or in any way connected with the Service Provider Assigned Intellectual Property, patent or other intellectual property infringement rights asserted by others against the Prime Contractor, including an indemnity claim brought by or on behalf of Project Co or Ottawa or its elected officials, including for all damages, judgments, costs, fees and expenses (including reasonable legal fees) as a result of the Prime Contractor owning, using or benefiting from the use of the Services in respect of designing, building, operating and maintaining the Project.
- 2.8 Publication. The Service Provider shall not, either alone or jointly with others, publish material relating to the Project and/or Services without the prior written approval of the Prime Contractor, which approval may be arbitrarily withheld or delayed.

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- 2.9 The Prime Contractor's Property. Anything supplied by or paid for by the Prime Contractor for the use of the Service Provider shall remain the property of the Prime Contractor and where practicable shall be so marked. When the Services are completed or terminated, the Service Provider shall furnish an inventory to the Prime Contractor of Prime Contractor's property which has not been consumed in the performance of the Services and shall dispose of such property in accordance with the written instructions of the Prime Contractor.
- 2.10 Independent Audit.
- 2.10.1 The Service Provider shall maintain up-to-date and accurate records, which clearly identify the Service Provider's time and expenses in respect of the Services. The Service Provider agrees that the Prime Contractor or any of its duly authorized representatives or advisers, shall have access to and the right to examine all pertinent records, books and documents of the Service Provider which pertain to the Services for a period of six (6) years after termination of this Agreement. Notwithstanding the foregoing, the Prime Contractor shall not have access to such records, books and documents that may indicate breakdowns of any previously-agreed lump sum prices. For additional clarity, access to financial records required in this Section 2.10 shall not apply except where the Services are paid on a time and expense reimbursable basis.
- 2.10.2 Notwithstanding any other provision of this Agreement, the Service Provider shall perform all acts reasonably required and disclose all records, books and documents as reasonably required to allow the Prime Contractor to comply with its obligations to allow an audit of the Service Provider pursuant to the terms of the Project Agreement and the Prime Contract.
- 2.10.3 An audit pursuant to GC 2.10.2 does not constitute any acceptance of the Services nor does it relieve the Service Provider of responsibility or liability for the quality of the Services or from any obligation to perform the Services in accordance with the requirements of this Agreement.
- 2.11 Equipment and Facilities. Except as may be otherwise indicated in Appendix B – Scope of Services, the Service Provider shall provide and retain ownership of all computers, programs and facilities and other equipment, required to render the Services.
- 2.12 Assignment and Subcontracts. The Service Provider shall not assign any right, interest or obligation under this Agreement without the Prime Contractor's prior written consent which may be withheld for any reason. The Service Provider shall not subcontract any or all of the Services without the Prime Contractor's prior written consent which, subject to the obligations and restrictions of the Project Agreement, the Prime Contract and other related agreements shall not be unreasonably withheld. In no event shall the Service Provider subcontract all or substantially all of the Services. The Service Provider shall be responsible for the management of its Subcontracts including the termination and replacement of any Subcontractor (which replacement Subcontractor, if any, shall be subject to the approval of Prime Contractor, acting reasonably).
- 2.13 Service Provider's Employees. The Service Provider shall assign its employees identified in Appendix B – Scope of Services to the performance of the Services in a timely and fully effective manner. The Service Provider assumes all legal, tax and other liability for all employees assigned to provide the Services; however the Prime Contractor shall have the right to monitor the work of the Service Provider's employees assigned to provide Services. The Service Provider shall declare key personnel to be used in the execution of the Services. Such key personnel shall not be changed without the written consent of the

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Prime Contractor, such consent shall not be unreasonably withheld. The Prime Contractor may, acting reasonably, request the Service Provider to remove any employee from the Project.

The Service Provider shall take all reasonable steps to ensure that all persons employed or engaged by it to perform the Services have the qualifications, experience and capabilities necessary to perform the Services and to ensure that such persons perform the Services to the standard of care set out in Section 2.1.

- 2.14 Use of Software and Electronic Drawing Files. Unless the Prime Contract states otherwise, the Service Provider shall consult with Prime Contractor and obtain prior written approval, such approval not to be unreasonably withheld, for the use and type of software in its generation of the design drawings and/or other drawings (including CADD Files or others) and specifications. The Service Provider will be required to provide its documents using the approved versions of the software, which are in use in the industry and by the Prime Contractor. The following requirements will apply to the use of the software and electronic drawing files:
- (a) At the commencement of the Project, the Service Provider shall obtain a one-time prior written approval from the Prime Contractor before designation and use of its drawing layering system;
 - (b) When directed, the electronic drawing files submitted to the Prime Contractor for review, at intermediate submittals, and/or at the final submittal shall have all required attachments and reference files inserted as one block in order to facilitate review and use of the drawings;
 - (c) The service provider will provide both PDF files and electronic drawing files (such as .dwg). Should there be a conflict between the electronic data files and the PDF files, then the PDF version will govern. The Prime Contractor releases the Service Provider from any liability whatsoever arising in respect of any construction that is performed from electronic models or files that is inconsistent with the information presented by the PDF files.
- 2.15 Representative. Within the time period stipulated in Appendix A – Special Conditions to the Services Agreement, if any, each of the Parties shall appoint an authorized representative with full authority to act on behalf of the appointing party in connection with the Services and this Agreement. Provided that, any amendment to this Agreement shall be required to be executed by all the members of both Parties in order to take effect and the authorized representative of either Party shall not have the authority to approve an amendment to this Agreement on behalf of the Party the authorized representative represents.
- 2.16 Independent Contractor. The Service Provider shall be deemed to be acting solely as an independent contractor and nothing contained herein shall at any time be construed as to create the relationship of employer and employee, partnership, principal and agent, or joint venture as between the Prime Contractor and the Service Provider. The Service Provider shall have no authority to make any statements, representations, or commitments of any kind, or to take any action, which shall be binding on the Prime Contractor, except as expressly provided for in this Agreement or as otherwise expressly authorized in writing by the Prime Contractor.
- 2.17 Subcontractor claims and liens. The Service Provider shall settle and pay for, *inter alia*, all accounts, claims or liens with respect to any of the Services which have been

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subcontracted, in accordance with the terms and conditions of the applicable subcontract. If, after having received ten (10) Business Days' written notice from the Prime Contractor to settle and pay an undisputed account or claim that is past due, in respect of any such subcontract, the Prime Contractor shall have the right, but not the obligation, to settle or pay such account, claims and/or liens for the account of the Service Provider at the Service Provider's expense and the Service Provider shall further indemnify the Prime Contractor for any costs or expenses incurred by the Prime Contractor in settling or paying such accounts, and the receipt issued to the Prime Contractor with respect to such accounts, claims or liens shall be conclusive evidence as to such payments and the amount thereof. Notwithstanding the foregoing provision, the Service Provider shall not be required to pay such accounts, claims or liens if it has reasonable grounds for disputing same and the Prime Contractor in these circumstances will only have the right to pay or settle such accounts, claims or liens in such manner as in its opinion, acting reasonably, will not prejudice the Service Provider's right to dispute same. Within five (5) Business Days of becoming aware of any registered lien or any other encumbrance attaching to the land (or to the holdback that is required to be maintained under the Construction Lien Act) due to an act or omission of the Service Provider, the Service Provider will cause such lien or encumbrance to be removed, discharged or vacated, provided however that the Prime Contractor will be entitled to remove, vacate or discharge such registered lien or other encumbrance, after consultation with the Service Provider, in order to meet the time limits set out in the Prime Contract. The Service Provider shall indemnify the Prime Contractor for its costs and expenses in obtaining the removal, vacating or discharge or such registered lien or other encumbrance, including any costs or expenses for which it is liable to Project Co in respect of the same.

- 2.18 Coordination. The Services include the coordination required of the services provided by the Service Provider and those other consultants identified in Appendix B – Scope of Services.
- 2.19 Communications. Unless otherwise agreed, the Service Provider shall communicate with Ottawa, and the subcontractors of the Prime Contractor, only through the Prime Contractor.

3.0 OBLIGATIONS OF THE PRIME CONTRACTOR

- 3.1 Information. The Prime Contractor shall at its cost provide the Service Provider promptly with information required for the performance of the Services which the Prime Contractor has in its possession or which it may obtain from third parties. The foregoing sentence includes but is not limited to surveys, geotechnical, utility locates, and vehicle information. The Service Provider may not rely upon any such information except as provided for in this GC3.1. The Service Provider acknowledges and agrees that it shall only be entitled to rely on data produced or provided by Ottawa or by its consultants to the extent that Project Co is entitled or becomes entitled to rely on such information under the terms of the Project Agreement. The Service Provider may rely on all other data and information provided to it by or on behalf of Prime Contractor, its consultants, subcontractors, employees or other representatives. The Service Provider, in reviewing and using any information provided to it, shall exercise a standard of care to be expected of a professional experienced in carrying out work of a similar size, scope and complexity of a project and in this area of practice. The Service Provider shall notify the Prime Contractor of any errors or omissions that it discovers.

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3.2 Access to Site. The Prime Contractor shall assist in providing the Service Provider with the requisite access to the Site to the extent required for the performance of the Services.

3.3 Payment to the Service Provider. The Prime Contractor shall pay the Service Provider for the Services in accordance with Article A-2 and the provisions of Appendix D – Price and Payment.

4.0 LIABILITY

4.1 Liability and Indemnification. Each Party (the “**Indemnifying Party**”) shall save and hold harmless and indemnify the other Party, its Affiliates and their respective directors, officers, employees and agents, for all Direct Losses (including liquidated damages incurred under the Project Agreement), resulting from or arising out of the Indemnifying Party’s negligent acts, errors, or omissions in respect of the Services and this Agreement, any breach of this Agreement, or willful misconduct.

4.2 Patent Indemnity. The Service Provider shall save and hold harmless and indemnify the Prime Contractor, its Affiliates and their respective directors, officers, employees and agents for all losses, damages, expenses, actions, proceedings, demands, costs and claims, including but not limited to reasonable legal costs and expenses, brought against or incurred by the Prime Contractor, or its Affiliates and their respective directors, officers, employees, agents arising out of the infringement of any patent, trademark, copyright or other proprietary right or information provided to the Prime Contractor by the Service Provider as a result of the performance of the Services.

4.3 Taxes and Charges Indemnity. The Service Provider shall be liable for all income tax, Goods and Services Tax, sales tax (including but not limited to the Harmonized Sales Tax), value added taxes, fringe benefits, payroll burdens, and similar charges applicable to the Service Provider and to the employees of the Service Provider, arising from the Service Provider’s provision of the Services pursuant to this Agreement, including without limitation, unemployment insurance, workers’ compensation, and any other charge, tax, assessment, fines, penalties and interest (collectively “**Taxes and Charges**”). The Service Provider shall save and hold harmless and indemnify the Prime Contractor and its Affiliates and their respective directors, officers, employees, or agents for any losses, damages, expenses, actions, proceedings, demands, costs and claims brought against or incurred by the Prime Contractor or its Affiliates and their respective directors, officers, employees, or agents resulting from the Service Provider’s failure to pay any such Taxes and Charges.

4.4 Third Party Liability and Indemnification. Each Party (the “**Indemnifying Party**”) shall save and hold harmless and indemnify the other Party, its Affiliates and their respective directors, officers, employees and agents, for all losses, damages, expenses, actions, proceedings, demands, costs, and claims, including but not limited to reasonable legal costs and expenses, resulting from or arising out of damage to or destruction of the property of a third party or injury to or the death of a third party caused by the wrongful act or omission, negligence or wilful misconduct of the Indemnifying Party.

4.5 For greater certainty, references to either Party as an Indemnifying Party in relation to which the indemnities set out in this GC 4 apply are deemed to include references to the employees agents, subcontractors and consultants of such Party and others for whom such Party is responsible for at law in relation to the performance of this Agreement and,

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in the case of a Party's subcontractor, the performance of the subcontractor's subcontract as it relates to this Agreement.

- 4.6 Indirect Losses. Notwithstanding any other provision in this Agreement, neither Party shall be liable to the other, whether by way of indemnity or by breach of contract (including warranty), tort (including negligence) or under any other theory of liability, for any loss that is (i) for punitive, exemplary or aggravated damages; (ii) for loss of profits, loss of use, loss of production, loss of business or loss of business opportunity; or (iii) is a claim for consequential loss or for indirect loss of any nature suffered or allegedly suffered by either Party, (collectively, "**Indirect Losses**".) For the avoidance of doubt, Liquidated Damages (as defined in the Project Agreement) imposed upon the Prime Contractor and any indemnification therefore, shall not be Indirect Losses.
- 4.7 Limitation on Liability
- 4.7.1 Service Provider's Maximum Aggregate Liability. Subject only to GC 4.8, notwithstanding any other provision of this Agreement, the Service Provider's maximum aggregate liability to the Prime Contractor for any and all claims whatsoever relating in any way to or arising for any reason from this Agreement will not exceed \$15,000,000.00 (the "**Service Provider Cap on Liability**"), inclusive of all sublimits set out in this Agreement.
- 4.7.2 Daily Liability Sublimit for Delay. Subject to GC 4.7.3, the Service Provider shall only be liable for delay in the event that Service Provider does not achieve a Milestone on or before the date set out in Section 3.0 of Appendix C – Schedule Dates for achieving such Milestone (as amended from time to time) and, with respect to any such event, the Service Provider's maximum liability to the Prime Contractor for such delay will be \$30,000.00 per calendar day of delay by Service Provider in achieving such Milestone. Provided that to the extent any such delay is due to the Service Provider's architectural subcontractors of any tier then the application of such \$30,000.00 per day limit shall be proportionately reduced in respect of such delay.
- 4.7.3 Liability Sublimit for Claims Arising from Architectural Subcontractors. Notwithstanding any other provision of this Agreement, the Service Provider's maximum liability for issues or claims to the extent arising from the performance of Service Provider's architectural subcontractors of any tier will be limited to the proceeds of insurance from the Project specific insurance provided by Project Co as set out in GC 5.3 or of any other insurance required by GC 5 to be provided by Service Provider or their subcontractors received directly or indirectly on account of such issues or claims.
- 4.8 The Service Provider Cap on Liability and all sublimits set out in this Agreement shall not apply to:
- (a) any fraud by the Service Provider, any Subcontractor, or any of their respective employees or agents;
 - (b) any abandonment, wilful misconduct, or deliberate acts of wrongdoing by the Service Provider, any Subcontractors, or any of their respective employees or agents provided that willful misconduct or deliberate acts of wrongdoing does not include any act, omission or failure to act insofar as it was done or omitted in accordance with the express instructions or approval of Prime Contractor;

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- (c) risks in respect of which the Service Provider is required to insure pursuant to this Agreement (up to the minimum amount of the available insurance and deductibles thereon that has been procured pursuant to this Agreement);
- (d) any amounts paid by the Service Provider that are subsequently repaid to the Service Provider by the Prime Contractor or refunded to the Service Provider by a third party other than an insurance provider;
- (e) liability for third party claims other than claims brought against the Service Provider or the Prime Contractor by Ottawa, Project Co, or any subcontractor of the Prime Contractor, Ottawa or Project Co of any tier in relation to the Project;
- (f) any reasonable third-party expenses of the Prime Contractor reasonably incurred in enforcing but not performing Service Provider's obligations of this Agreement, including interest on such expenses paid by the Prime Contractor from the date such expenses are incurred by Prime Contractor until paid by Service Provider; or,
- (g) the amount of any insurance proceeds received by Service Provider from the Project specific insurance provided by Project Co as set out in GC 5.3 or from any other insurance required by GC 5 to be provided by Service Provider or their subcontractors or for any claims which would have been covered by such insurance proceeds had the Service Provider complied with its obligations under this Agreement.

4.9 The Parties shall take all reasonable and necessary steps to mitigate, minimize and avoid all costs, damages, and impacts arising out of the performance of their respective services on the Project.

5.0 INSURANCE

5.1 Service Provider's Insurance

5.1.1 The Service Provider shall provide, maintain and pay for such insurance, as will protect its plant, equipment, materials, tools, and its supervisor, and other personnel required for the execution of the Services. The Service Provider hereby waives all rights of recovery from the Prime Contractor in connection with its properties and the properties of its personnel.

5.1.2 The Service Provider shall at its own cost carry, or cause to be carried, the following insurance with insurers and on terms reasonably acceptable to the Prime Contractor:

- (i) Commercial General Liability policy with a limit of not less than \$5,000,000 against bodily injury, including wrongful death, and property damage;
- (ii) If the Service Provider or its personnel uses any automobile, an automobile liability policy with a limit of not less than \$5,000,000 against bodily injury, including wrongful death, and property damage; and
- (iii) Workers Compensation coverage as required by all applicable laws.

5.2 General Insurance Provisions. The following shall apply in respect of insurance:.....

- (a) the Service Provider shall supply to the Prime Contractor such evidence as the Prime Contractor may reasonably require to confirm that the insurance which the

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Service Provider is required to effect and maintain under this Agreement is in full force and effect;

- (b) the Service Provider shall comply, and shall secure compliance by its Subcontractors of any tier, with the terms of the insurances referred to in GC 5.1 except for the limits for the Commercial General Liability coverage (GC 5.1.2 (i)) shall be amounts not less than \$5,000,000 respectively. The automobile liability coverage on all vehicles owned, operated or leased in the name of the Subcontractors of any tier shall be in an amount not less than \$5,000,000 per occurrence as GC 5.1(ii).
- (c) The Service Provider shall not take any action or fail to take any action, and shall procure that Sub-Contractors of any tier shall not take or fail to take any action, as a result of which any of the insurances referred to in GC 5.1 may be rendered void, voidable, unenforceable or suspended or impaired in whole or in part or which may otherwise render any sum paid out under the relevant policy repayable in whole or in part; and
- (d) the Service Provider's policies shall contain an endorsement to the effect that they will not be cancelled, lapsed or significantly modified unless a 90-day written notice is issued to the Prime Contractor; and
- (e) Upon request, the Service Provider shall provide the Prime Contractor with certificates of insurance evidencing that the above policies are in effect.
- (f) The Service Provider's insurer or insurers will provide a waiver of subrogation in favour of the Prime Contractor, Project Co and Ottawa.

5.3 Project-Specific Insurance Program

5.3.1 Project Co will effect a project-specific insurance program that provides insurance policies with coverage of the Service Provider and others. This program shall include:

- (a) Professional Liability coverage in the amount of \$60,000,000 per occurrence subject to \$60,000,000 project aggregate (with a deductible of \$250,000) and an extended reporting period of thirty six months; and
- (b) wrap-up liability program in the amount of \$300,000,000 (with a deductible of \$250,000 for all principal items).

The Service Provider shall be identified as an Additional Insured.

5.3.2 The Service Provider shall adhere to the provisions of such policies and shall be responsible for the deductible incurred in connection with each claim made in respect thereof to the extent the Service Provider or any Sub-Contractor is responsible for the loss in connection with such claim made on insurance.

5.3.3 As identified within GC 4.6 above any amounts claimed by the Service Provider under the Project-wide Insurance Program shall not be considered towards the Service Provider Cap on Liability except for any deductibles withheld from the Service Provider for such claims.

5.3.4 Copies of the cover notes and policies for the Project-wide insurance program referred to herein will be provided to the Service Provider before finalization of the Contract Price.

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6.0 FORCE MAJEURE, SUSPENSION AND TERMINATION OF AGREEMENT

- 6.1 Force Majeure. If either Party is rendered unable, in whole or in part, by reason of a Force Majeure Event, to carry out its obligations hereunder, other than the obligation to pay money, the Party claiming Force Majeure Event shall give the other Party prompt notice of same with reasonably complete particulars, and the obligations of the Parties, in so far as they are affected by the Force Majeure event, shall be suspended during, but no longer than, the continuance of the Force Majeure event. The Party claiming Force Majeure shall use reasonable diligence to mitigate the effects of the Force Majeure event; provided, however, that the foregoing shall not require a Party to settle labour disputes contrary to its wishes.

Notwithstanding the foregoing, under no circumstances shall the Service Provider be entitled to claim a Force Majeure event if the Prime Contractor is not entitled to claim a Force Majeure event pursuant to the Prime Contract.

6.2 Suspension or Termination of Agreement.

- 6.2.1 The Prime Contractor may suspend all or part of the Services or terminate this Agreement at its sole discretion and for whatever reason upon twenty (20) Business Days written notice to the Service Provider.

- 6.2.2 In the event that the Prime Contract is terminated or suspended for any reason whatsoever, the Prime Contractor may immediately terminate or suspend this agreement upon delivery of notice by the Prime Contractor to the Service Provider.

- 6.2.3 The Prime Contractor may terminate this Agreement:

- (a) upon ten (10) Business Days written notice to the Service Provider if the Service Provider is in breach of any of its material obligations pursuant to this Agreement and fails to remedy unless the Service Provider puts forward a remedial plan reasonably acceptable to the Prime Contractor and is diligently taking steps to remedy its breach in accordance with such remedial plan. If the remedial plan indicates that the breach will be remedied more than 30 days after written notice was given to the Service Provider, the remedial plan must be acceptable to the Prime Contractor in its sole discretion;
- (b) if the Service Provider or any of its constituent firms becomes insolvent or bankrupt or enters into any agreements with its creditors for relief of debt or takes advantage of any law for the benefit of debtors or goes into liquidation or receivership whether compulsory or voluntary; or

- 6.2.4 The Service Provider may, upon twenty (20) Business Days written notice to the Prime Contractor, suspend its performance of any or all of the Services or terminate this Agreement if the Prime Contractor fails to pay any money due and owing to the Service Provider pursuant to this Agreement and not subject to dispute within twenty (20) Business Days after receiving written notice from the Service Provider that such payment is overdue.

- 6.2.5 Upon termination of this Agreement or upon expiration of the Term, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on or prior to the date of termination or expiration; (ii) the obligations in respect of confidentiality and intellectual property set forth in GCs 2.6 and GC 4; (iii) the Service Provider's obligation to permit inspection, copying and auditing of their

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accounts and records set forth in GC 2.10; and (iv) any right which a Party may have under applicable law.

- 6.2.6 Upon termination of this Agreement by notice of either Party to the other pursuant to GC 6.2.1 to 6.2.4, inclusive, the Service Provider shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner.
- 6.2.7 Without limiting the Parties' right to damages for breach of contract, upon termination of this Agreement pursuant to any of GC 6.2.1 to 6.2.4, the Prime Contractor shall pay the Service Provider for Services performed in accordance with this Agreement prior to the effective date of termination, subject to any set-offs or deductions entitled to be made by the Prime Contractor, including but not limited to the cost of any damages resulting from the Service Provider's breach of its obligations hereunder. For clarity, if this Agreement is terminated pursuant to GC 6.2.2 or 6.2.3, the Prime Contractor will be entitled to withhold monies owing to the Service Provider until the Prime Contractor's damages have been calculated.

7.0 SAFETY

- 7.1 The Service Provider shall comply with the Prime Contractor's safety requirements current at the time the Service Provider's employees, Sub-Contractors, agents or servants attend the Site to commence the Services. The Service Provider shall provide all required personal protective equipment, materials, training and instruction for the Service Provider's employees. The Service Provider shall further ensure that the Service Provider's Sub-Contractors, agents or servants are properly equipped with personal protective equipment, materials, training and instruction as required to complete the Services. The Prime Contractor may request such evidence as necessary to validate the Service Provider's proper understanding of health and safety requirements for activities undertaken by the Service Provider's employees, Sub-Contractors agents or servants on the Site.

8.0 DISPUTE RESOLUTION

- 8.1 If a dispute arises under this Agreement in respect of a matter which involves Project Co, the dispute shall be determined in accordance with the requirements and Dispute Resolution Procedure set out in the Prime Contract. Subject to Article 5.2 and GC 2.1.3, the Service Provider will be bound by the outcome of any dispute under the Prime Contract, to the extent applicable. Subject to Article 5.2 and GC 2.1.3, the Service Provider will be entitled to compensation or relief to the extent actually received by the Prime Contractor. Any dispute in respect of the application of the foregoing GC 8.1 or the allocation of any such compensation or relief among Service Provider and Prime Contractor (including its other subcontractors) shall be determined by the Dispute Resolution Procedure under this Agreement.
- 8.2 In other instances, if a dispute arises between the Parties, which does not properly involve Project Co and the Parties' respective representatives cannot resolve a dispute under this Agreement amicably within ten (10) Business Days, they shall refer the matter to an *ad hoc* conciliation committee made up of one upper management person from each Party. If the ad hoc committee fails to resolve the matter amicably within ten (10) Business Days, such dispute shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance

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with the said Rules. The place of arbitration shall be Toronto, Ontario. Any decision of the arbitrator shall be final and binding upon the Parties.

- 8.3 In the event that the Prime Contractor becomes involved in a dispute pursuant to the terms of the Prime Contract and such dispute directly or indirectly relates to the Services, the Service Provider shall assist the Prime Contractor and participate in the dispute resolution process as reasonably required by the Prime Contractor to the extent that the Service Provider's interests are not adverse to the Prime Contractor's.

9.0 NOTICES

- 9.1 Notices in writing between the Parties shall be considered to have been received by the addressee on the date of delivery if delivered to the individual, or to a member of the firm, or to an officer of the corporation for whom they are intended by hand or by registered post; or if sent by regular post, to have been delivered within five (5) Business Days of the date of mailing when addressed as stated in Appendix A – Special Conditions to the Services Agreement or if no such addressees are referenced, the signatories to this Agreement.

10.0 MISCELLANEOUS

- 10.1 The Parties shall take all reasonable and necessary steps to minimize and avoid all costs and impacts arising out of the performance of the Services and this Agreement.

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IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement in counterparts effective as of the date first above written.

The parties have executed this Agreement.

SNC-LAVALIN CONSTRUCTORS (PACIFIC) INC.

By: _____
Name:
Title:

By: _____
Name:
Title:

I/We have authority to bind the corporation.


DRAGADOS CANADA, INC.

By: _____
Name:
Title:

By: _____
Name:
Title:

I/We have authority to bind the corporation.

ELLISDON CORPORATION

By: 
Name: TIM SMITH
Title: VICE PRESIDENT

I/We have authority to bind the corporation.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement in counterparts effective as of the date first above written.

The parties have executed this Agreement.

SNC-LAVALIN CONSTRUCTORS (PACIFIC) INC.

By: [Signature]
Name: VP ATKIN
Title: VP TECHNICAL & PAUL

By: [Signature]
Name: DAVE WEATHERS
Title: VICE-PRESIDENT

I/We have authority to bind the corporation.

DRAGADOS CANADA, INC.

By: _____
Name:
Title:

By: _____
Name:
Title:

I/We have authority to bind the corporation.

ELLISON CORPORATION

By: _____
Name:
Title:

I/We have authority to bind the corporation.

SNC-LAVALIN INC.

By: _____
Name: ADAM LEHAY
Title: SVP

By: Fernando Antunes
Name: Fernando Antunes
Title: VP

I/We have authority to bind the corporation.

MMM GROUP LIMITED

By: _____
Name:
Title:

By: _____
Name:
Title:

I/We have authority to bind the corporation.


SNC-LAVALIN INC.


By: _____
Name:
Title:

By: _____
Name:
Title:

I/We have authority to bind the corporation.

MMM GROUP LIMITED

By:  _____
Name: J.T. Stanley
Title: EVP

By:  _____
Name: David E. Jull, P.Eng.
Title: Executive Vice President

I/We have authority to bind the corporation.

APPENDIX A**SPECIAL CONDITIONS TO THE SERVICES AGREEMENT****SC1.0 Authorized Representatives**

The following individuals are the Authorized Representatives of each Party.

Prime Contractor:

David Whyte
Project Director
1600 Carling Avenue, Suite 450
Ottawa, ON, K1Z 1G3
Direct dial: (613) 916-6563
dwhyte@snciavalin.com

Service Provider:

Roger Woodhead P.Eng.
Design Manager
1600 Carling Avenue, Suite 450
Ottawa, ON, K1Z 1G3
Direct dial: (613) 916-6575
Mobile: (778) 834-2717
Roger.Woodhead@snciavalin.com

SC 2.0 DB Contractor Design Review and Feedback Procedure**2.1 Definitions**

The following definitions relate to the relevant design submittals for the purpose of this Agreement (the number of Stages may be reduced in discussion with the City of Ottawa. This will involve collapsing one or more defined stages into a single stage):

- Stage 1 Submittal means the state of the design at the First Pre-final Design Development Submittals. This submittal will incorporate any updates with respect to the negotiations of the Project Agreement and the outcome of the Prime Contractor Value Engineering (VE) activity (see VE definition below).
- Stage 2 Submittal means the state of the design included in the Second Pre-final Design Development Submittals. This submittal will be the development of the Stage 1 Submittal including the response to any comments received from Ottawa from the Stage 1 Submittal review. The outcome of this submission is a frozen design for further design development. Any change to the design after this point will be submitted to a Change Evaluation Board consisting of members from the Prime Contractor and Service Provider which will evaluate impact and benefit of the change to the Project.

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- If no Stage 1 Submittal is provided to the City of Ottawa for review and therefore the first submittal to the City is the Stage 2 Submittal (Second Pre-final Design Development Submittal) then the design freeze will occur after the Stage 3 Submittal.
- Stage 3 Submittal means the state of the design included in the Final Design Development Submittals. This submittal will be the development of the Stage 2 Submittal including the response to any comments received from Ottawa from the Stage 2 Submittal review.
- Stage 4 Submittal means the state of the design at the Pre-final Construction Document Submittals. This submittal will be the development of Construction Documents based on the Stage 3 Submittal including the response to any comments received from Ottawa from the Stage 3 Submittal review.
- Stage 5 Submittal means the state of the design at the Final Construction Document Submittals. This submittal will be the development of Construction Documents based on the Stage 4 Submittal including the response to any comments received from Ottawa from the Stage 4 Submittal review.

Issued For Construction (IFC) package means the Final Construction Document package which will address all comments received from Ottawa on the previous Stage 1 to 5 Submittals and will be issued to the Prime Contractor for construction purposes. 2.0 General Principles

2.2 Schedule of Submittals

Within 30 days of execution of a Services Agreement the Prime Contractor and the Service Provider will jointly finalize a schedule of development of submittals based on the integrated construction and design schedule. The submittal schedule will identify all work packages (currently estimated at 47) and follow the timelines noted in this section. The schedule will clearly define critical milestones and specifically when the Design Freeze for each work package is scheduled.

2.3 Value Engineering

Optimizations and innovations in the design are an inherent element of the design-build process. Each of the 5 major project elements (Guideway, Tunnel, Underground Stations, Above Ground Stations and Systems) will undergo a Value Engineering exercise over a 20-day period at the outset of Design Development of the project element with the Prime Contractor. The Service Provider effort to support this VE exercise is included in the Basic Design Services. The VE exercise will evaluate the total impact to the project (additional design cost, construction cost and schedule impact) of the optimizations identified. Reasonable design changes stemming from such reviews will be implemented and the changes will be implemented upon authorization from the Prime Contractor

The work package VE activity and design development, optimization and innovation leading up to the Stage 1 Submittal will be both extensive and iterative. The Service Provider and Prime Contractor will jointly review possible optional concepts to allow the confirmed concept to be established and agreed. The Prime Contractor and the Service Provider acknowledges that much of the VE activity has taken place during the development of the proposal and that only a few opportunities for further VE may exist. During the VE process design iterations will take place which will not be carried forward to later design stages. These iterations will be evaluated based on limited design effort. The reviews will take the form of 'over the shoulder' reviews as well as

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regular face to face meetings to discuss specific matters. Pursuant to these reviews and in accordance with the Construction Schedule defined in Appendix C, the Service Provider will prepare the Stage 1 Submittal.

The Parties acknowledge that re-designs directed by the Prime Contractor after the design is frozen (but excluding the evolution and refinement of the solutions) will constitute a change and Additional Services for which Service Provider is entitled to adjustment to the compensation and schedule for delivery. After Service Provider has issued "Issued -for- Construction (IFC)" drawings, the Prime Contractor may continue to require Service Provider to make any optimization, evolution, refinement or improvement of the design, but these too shall be considered Additional Services for which Service Provider is entitled to adjustment to compensation and schedule for delivery.

2.4 Prime Contractor Reviews

The Service Provider will submit preliminary work package Submittals (Stage 1 to 5) to the Prime Contractor prior to the date for submission to Ottawa for its review. The Prime Contractor will return a set of coordinated comments on the submission. In addition, the Prime Contractor will conduct informal design reviews jointly with the Service Provider throughout the development of the submissions. The purpose of these reviews is to ensure that the Prime Contractor provides ongoing direction to the Service Provider on issues relating to the cost and constructability of the design concepts as they develop. The reviews will prioritize the sequence of design activities to ensure the schedule and Milestones referred to in Section 3.0 of Appendix C are adhered to and that construction schedule requirements are met.

While the Parties acknowledge that the reviews will involve section and discipline leads from their respective groups, all communication will be directed through the Prime Contractor's Technical Director and the Service Provider's Design Manager.

These reviews will not in any way diminish or remove the Service Provider's absolute obligation to design the work assigned to Service Provider in accordance with this Agreement. If a conflict arises between the Prime Contractor's requirements and this Agreement, this Agreement shall take precedence.

2.5 Ottawa Reviews

The Service Provider has allowed for reviews by Ottawa to be completed in accordance with Schedule 10 to the Project Agreement. The City of Ottawa is to provide a coordinated set of comments for response by the Prime Contractor with the support of the Service Provider.

Upon receiving comments on the Submittals from Ottawa, the Prime Contractor's Technical Director will ensure both Ottawa's and the Prime Contractor's comments are clearly communicated to the Service Provider's Design Manager.

If a conflict arises between Ottawa's and the Prime Contractor's comments, the Service Provider will consult with the Prime Contractor to obtain direction with regards to resolving the comments. The Service Provider will advise the Prime Contractor as to which comments conflict or exceed the technical requirements.

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2.6 Submissions

The Service Provider will submit the deliverables for the various Stage Submittals to the Prime Contractor 15 Business Days prior to the submission date to Ottawa. The Prime Contractor will then carry out a full review of the Submittal and will 'redline' coordinated comments onto the submission documents or provide a coordinated set of written comments within 5 Business Days. The Service Provider will communicate its response to the comments to the Prime Contractor within 3 Business Days of receiving the Prime Contractor comments. The Service Provider will deliver an electronic copy of the Stage Submittal to the Prime Contractor with the comments addressed within 3 Business Days after forwarding the comment responses to the Prime Contractor. The Prime Contractor will then package the Submittal and make the submission to Ottawa.

The Service Provider will submit the deliverables for the IFC Package to the Prime Contractor 15 Business Days prior to the scheduled date for issue for construction. The Prime Contractor will carry out a full review of the Submittal and will 'redline' coordinated comments onto the submission documents or provide a coordinated set of written comments within 5 Business Days. The Service Provider will communicate its response to the comments to the Prime Contractor within 3 Business Days of receiving the Prime Contractor Comments. The Service Provider will deliver an electronic copy of the IFC Package to the Prime Contractor with the comments addressed within 5 Business Days after forwarding the comment responses to the Prime Contractor.

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SC 3.0 Notices

Any notice, consent, authorization or communication permitted or required under this Agreement shall be in writing and shall be delivered by hand or transmitted by fax or e-mail in accordance with the particulars set forth below:

Notices shall be in writing and may be delivered by hand or by facsimile transmission to the addresses set out below, or other addresses given by subsequent notice. Notices given by facsimile transmission or e-mail sent after 4:00 pm local time will be deemed to be received on the Business Day at the location of the recipient next following the date of transmission.

The Parties hereby appoint the following persons to be that Party's point of contact with respect to notice:

if to **Prime Contractor** (as represented by):

SNC-Lavalin Constructors (Pacific) Inc.
1800 – 1075 West Georgia Street
Vancouver, BC V6E 3C9
Fax: (604) 662-7688

Attention: Ron Aitken,
Vice President

with a copy to the SNC-Lavalin Constructors
(Pacific) Inc. Legal Department
Attention: Hannelie Stockenstrom
Senior Vice President

Dragados Canada, Inc.
150 King St. W., Suite 805
Toronto, ON M5H 1J9
Fax: (647) 260-5002

Attention: Manuel Rivaya,
Executive Vice President

EllisDon Corporation
89 Queensway Avenue West, Suite 800,
Mississauga, Ontario, L5B 2V2
Fax: (905) 896-8911

Attention: Tim Smith,
Executive Vice President

if to **Service Provider** (as represented by):

SNC-Lavalin Inc.:
1800 – 1075 West Georgia Street
Vancouver, BC V6E 3C9
Fax: (604) 662-7688

Attention: Douglas Hoskin,
Representative

with a copy to the SNC-Lavalin Inc. Legal
Department (Design-Engineering,
Vancouver)

MMM Group Limited
Suite 700, 1045 Howe Street
Vancouver, BC V6Z 2A9
Fax: 604-683-8655

Attention: Tim Stanley,
Executive Vice President
Partner

[End of Appendix A.]

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APPENDIX B**SCOPE OF SERVICES**

The Service Provider's scope of Services is as set out in Article A-1 of the Agreement and, without limiting the foregoing except in respect of the expressed exclusions and limitations noted in Article 6, includes preparing and providing the following:

Article 1 – General Scope Description

- 1.1 The Service Provider shall prepare the Design Execution Plan (this will become part of the Prime Contractor's Project Manual) in accordance with the Project Agreement, which shall be the main execution plan agreed between the Prime Contractor and Project Co (which may be periodically revised) and shall comply, update and implement any subsequent changes or amendments to the Design Execution Plan which have been authorized in writing by the Prime Contractor.
- 1.2 The Design Execution Plan will provide for value engineering and constructability review submissions and approvals and highlight the criticality of the decision making process. The Service Provider and Prime Contractor will work together collaboratively to deliver designs that develop in a logical and progressive sequence. Fundamental changes in design approach or construction method directed by the Prime Contractor are grounds for requesting Additional Services as per Article 7.
- 1.3 The Service Provider shall provide the designs and resulting deliverables as further defined herewith, including all related Services, necessary to enable the Prime Contractor to perform the permanent construction work as specified in the specific sections of the Project Agreement.
- 1.4 The general scope of work is defined by the list of schedules contained in Article A-1 of this Agreement, unless described otherwise within the more detailed scope of this Appendix.
- 1.5 Such other services as described herein to be the responsibility of Service Provider.

Article 2 – Basic Design Services

The following technical services are included in the Service Provider's scope of services during the design phase (the "Basic Design Services"):

- 2.1 The Service Provider's scope of work and fees are based on the design concepts reflected in the "RFP Technical Submission" dated September 10th, 2012, provided to the Prime Contractor during the Proposal phase, and as shown in the Project Exhibits. The Prime Contractor recognizes the preliminary design and the value of the "RFP Technical Submission" and also recognizes that changes in approach and/or concepts (in excess of design development or refinement) that requires material additional services by the

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Services Provider from these documents is not included in the Basic Design Services and will be considered as Additional Services as per Article 7.

- 2.2 The design of all works shall be in accordance with the relevant schedules of the Project Agreement and the latest version of applicable codes as of Financial Close.
- 2.3 The Service Provider's Design Services include:
- (a) Stations design (surface and underground) as per the requirements of the Project Agreement including the following:
- i. architecture in conformity with the design concepts in the Proposal – changes in concepts, and relocations of stations will be considered as Additional Services as per Article 7.;
 - ii. engineering (structural, mechanical, electrical, systems, civil, and geotechnical);
 - iii. transportation integration as it relates to the stations and the station hubs (including O-Train, BRT, buses, passenger pickup/drop-off, etc.);
 - iv. urban design integration (including art integration)
 - v. landscape design including tree conservation;
 - vi. Sustainability design with no requirement to achieve LEED status for stations; and,
 - vii. specialist engineering including but not limited to building code and fire life safety, light/shadow studies, accessibility reviews, pedestrian modelling, micro-climate analysis, computational fluid dynamics, signage and wayfinding.
- (b) MSF design for the entire site including yard and buildings and work to the TSCC at the existing Bus Control Centre at 875 Belfast, as per the requirements of the Project Agreement to scenario 2 and provisions to cover future expansion for scenario 3 including the following:
- i. architecture, recognizing the functional plan of the MSF will be designed in response to the operations and maintenance requirements of the vehicles supplier, and that a storage shed sized to cover the scenario 2 vehicles with expansion to cover in future the scenario 3 vehicles are part of the design works;
 - ii. engineering (structural, mechanical, electrical, systems, civil and geotechnical);
 - iii. Landscaping, including tree conservation;
 - iv. Sustainability design with the requirement to achieve LEED certified status for the main administration and maintenance building;
 - v. Industrial equipment design as needed for the facility to fully serve its function as a Maintenance and Storage facility for the OLRT; and,
 - vi. Specialist engineering including but not limited to building code and fire life safety, threat and vulnerability analysis, interior design, and noise and acoustics engineering.
- (c) Traction Power Sub-Stations, including architectural (where required), structural, mechanical, electrical, systems, civil, geotechnical and landscape;

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- (d) Tunnel design including station caverns, and portal structures – i.e., the OLRT tunnel section through the downtown from the west portal end wing wall to the east portal end wing wall, plus the MSF access track section, all as described in the Project Agreement. In addition, work to modify the existing bus tunnel and station at St. Laurent station involving elements of underground work. Engineering design for the underground sections includes
 - i. Tunnel and structural engineering that has been coordinated with the Prime Contractors construction means and methods (structural, mechanical, electrical, systems, civil and landscape);
 - ii. Geotechnical engineering, as described in section (e); and,
 - iii. Specialist engineering including but not limited to building code and fire life safety; noise and vibration, ventilation modelling including Subway Environmental Simulation (SES) and Computational Fluid Dynamics (CFD) analysis, and dispersion analysis, all as referred into within this scope of work.
- (e) Geotechnical design as per the requirements of the Project Agreement;
- (f) Hydrogeological design as required to assess impacts and associated risk both during and after construction as per the requirements of the Project Agreement;
- (g) Guideway (alignment) design as per the requirements of the Project Agreement;
- (h) Trackwork design, including but not limited to noise and vibration, as per the requirements of the Project Agreement;
- (i) Guideway Structural design, including but not limited to design of bridges and non-proprietary retaining walls, culverts, and miscellaneous structures including for example foundations for OCS, light and traffic poles, mounting pads, crash walls and miscellaneous guideway super structures, as required by the Project Agreement;
- (j) Guideway electrical including street lighting, traffic signals physical works, overhead catenary system, power distribution, telecom and security as per the requirements of the Project Agreement;
- (k) Pavement design as per the requirements of the Project Agreement;
- (l) Drainage design, including stormwater management design, as per the requirements of the Project Agreement;
- (m) Utility relocation design as per the requirements of the Project Agreement;
- (n) Landscape and urban design as per the requirements of the PA, including the fence design for guideway, the MSF, and at interfaces with stations;
- (o) Municipal road design as per the requirements of the Project Agreement;
- (p) Traffic and Transit Management Plan delivery as per the requirements of the Project Agreement;
- (q) Temporary Traffic Works design defined as permanent or long-term detours for the travelling public;
- (r) Environmental design as per the requirements of the Project Agreement;
- (s) Noise and Vibration mitigation design as per the requirements of the Project Agreement;

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- (t) Systems design including trackwork (as noted above), communications, Power Supply and Distribution, OCS, Tunnel Ventilation (including SES and CFD modelling as noted above) and all other systems related disciplines as per the requirements of the Project Agreement;
 - (u) Interface with the suppliers of vehicles and train control (as provided by Alstom and Thales) as required. This interface will be coordinated by the Prime Contractor. The Prime Contractor will require the suppliers to provide the necessary design parameters for the Service Provider to meet its obligations under this Agreement. Notwithstanding the exclusions provided in 6.9, the Service Provider will incorporate the required train control and vehicle design parameters obtained from the Prime Contractor and its suppliers into the design of the rest of the operating system and in accordance with the Project Agreement;
 - (v) Design coordination of and provisions for Public Art Program elements as per the requirements of the PA, noting that the Prime Contractor is providing the Art Co-ordinator, and that he will be responsible to lead the co-ordination of the art program with the City;
 - (w) Fire and Life Safety as per code relevant to the requirements of the Project Agreement;
 - (x) Public Consultation design support services are limited to providing technical support to the Prime Contractor and Project Co, as contemplated under the Project Agreement by providing the following:
 - i. Digital design data for the creation of the graphic materials to support a maximum of two rounds (based on the Consultation Plan – Section 5.7 of the Proposal) of open houses, both pertaining to stations regulatory approvals; and,
 - ii. Providing up to four staff to attend public stakeholder consultation meetings through the Design Development phases of the project in relation to the technical design of the system.
- 2.4 The Service Provider shall provide submissions in accordance with SC 2.0 DB Contractor Design Review and Feedback Procedure in Appendix A.
- 2.5 Works Submittals including revisions and re-submittals due to the rejection from Ottawa as a result of errors, omissions or negligence of the Service Provider are included in the Service Provider's scope. Rejections from Ottawa as a result of changes directed by the Prime Contractor are Additional Services as per Article 7.
- 2.6 The Service Provider shall provide all documentation in electronic format related to the designs which could be required to achieve Revenue Service or required to obtain the Final Completion Certificate.
- 2.7 The Service Provider shall evaluate the changes, variations or innovations proposed by the Prime Contractor during the Design phase. The Prime Contractor will perform its own due diligence and will keep to a reasonable amount the total number of requests.

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- 2.8 Upon request by the Prime Contractor, the Service Provider shall provide calculations of the design developed by the Service Provider including methodology applied and any other relevant clarification such as methodology, reference codes applied analysis, etc. Design technical meetings for specific elements can be requested by the Prime Contractor as may be required from time to time and are included in the Design Service.
- 2.9 The Service Provider shall provide designs, interpretations and clarifications in compliance with applicable code, the Project Agreement and any other applicable standards (which are included in the PA) with the objective of achieving reasonable solutions that meet the requirements of the Prime Contract.
- 2.10 The Service Provider shall provide responses to RFIs arising during the design and construction of the Project within five (5) business days of receipt by the Service Provider. The Service Provider and the Prime Contractor prior to the Service Provider's construction documents being issued to site will establish a protocol agreement for managing RFI's during construction. The purpose of the protocol agreement will be to establish processes, procedures and levels of expectation aimed at making the RFI process manageable and efficient for all parties
- 2.11 The Service Provider shall provide support to the Prime Contractor and provide all information, documents and particulars requested by Independent Structural Design Checking Team or the City related to designs, included but not limited to clarifications, reports, drawings and any other reasonable request.
- 2.12 The Service Provider shall provide support to any dispute with Independent Structural Design Checking Team or the City related to the design including variations or innovations of the design. When required by the Prime Contractor, acting reasonably, the Service Provider shall attend meetings.
- 2.13 The Service Provider shall complete its design based on standard specifications and include non-standard special provisions. Where standard specifications do not exist the Service Provider shall develop specifications as the basis for project wide specifications for applicable project elements. The requirements for testing and commissioning will be provided in the specifications.
- 2.14 The Service Provider shall prepare detailed designs consistent with the scope and magnitude of "RFP Technical Submission" drawings produced for the Proposal, except where directed otherwise by the Prime Contractor. The Service Provider shall not provide any bills of quantities.
- 2.15 The Service Provider shall provide all electronic design information (in the standard output from the design software used) to the Prime Contractor to undertake its construction work, including updates, in a format to be agreed upon at the commencement of the Project, provided it does not require unnecessary extra effort to convert from the CADD software platforms agreed to with the City of Ottawa in performing the Works.

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- 2.16 The Service Provider shall develop a test pit investigation program for borrow material from quarries and monitor and interpret the test results. The excavating and backfilling the test pits is by the Prime Contractor and not included in the Service Provider's price.
- 2.17 The Service Provider shall undertake the initial topographic survey and updating of the digital terrain model during the design phase in accordance with the methodology described in the Proposal using a combination of aerial photography, instrument surveys and portal Lidar. Any additional survey required in the event that the site is modified by the Prime Contractor in order to support construction operations is not included in the Service Provider's scope. Any change to the models and methodology as described in the Proposal will be Additional Services. In addition, if the Service Provider subcontracts the topographic survey to an external company, it must be approved by the Prime Contractor prior to commencing of the works. External topographic company must have extensive experience in major projects.
- 2.18 Other specialised design services included within the scope of work and as required under the Project Agreement include:
- Accessibility design,
 - Micro climate studies and integration into design
 - Light Analysis studies and incorporation into design.
 - Code analysis and compliance
 - Elevating devices
 - Security
 - Pedestrian Modelling

Article 3 – Program Management Services

The following design management services are included in the Service Provider's scope of services during the design phase (the "Program Management Services"):

- 3.1 The Service Provider shall coordinate its services to support the review and submittal of an Independent Structural Design Check Certificate in accordance with the requirements of the Project Agreement. The independent structural design check consultant shall be procured and paid for by Prime Contractor.
- 3.2 The Service Provider (Design Manager and/or designated discipline leads) shall attend weekly design coordination meetings as required by the Prime Contractor. Designated discipline leads may attend by conference call, as agreed by both parties. The Service Provider shall prepare and distribute notes of all design coordination meetings attended during the Design phase, unless the meeting is chaired by the Prime Contractor who shall assume the responsibility of preparing and distributing meeting notes. Notes of meetings shall be distributed not later than one week after the date of the meeting.
- 3.3 The Service Provider shall make allowance for a reasonable amount of support to the Prime Contractor for meetings with Project Co, the City, government agencies, municipalities, utility companies and other parties for the Prime Contractor to obtain the

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necessary approvals and permits for the construction work to proceed. Any impacts to the designs and the design schedule of the Service Provider as a result of a delay in the necessary approvals, not caused by the Service Provider, relative to the scheduled date for such approvals are considered Additional Services as described in Article 7.

- 3.4 The Service Provider shall provide a monthly progress report to the Prime Contractor which will report the progress of the Design Phase. The Prime Contractor and the Service Provider will agree on the contents of the reports.
- 3.5 The Service Provider shall interface with Maintenance JV Representative(s) during the Design phase as required and as coordinated by the Prime Contractor.
- 3.6 The Service Provider shall assist in evaluations of changes in field conditions. Any material change to the design as a result of such evaluations will be Additional Services as per Article 7.

Article 4 – Construction Phase Services

The following support services are included in the Service Provider's scope of work during the construction phase (the "Construction Phase Services"):

- 4.1 The Service Provider will provide support to the Prime Contractor, relevant to the Service Provider's Services, in support of the Prime Contractor's Work during the construction phase including support to obtain permits and approvals consistent with meeting the Prime Contractor's obligations under the Project Agreement in order to achieve Revenue Service. The scope of Construction Phase Services provided by the Service Provider shall include review of shop drawings, sample materials and mock ups; response to clarifications on the drawings through an RFI process; review of Prime Contractor's inspection and test plans to establish witness and hold points; review of Prime Contractor's testing and commissioning plans to verify engineering submittals and verification report requirements; identification and attendance of witness and hold points during construction where such attendance is necessary to enable Professionals of Record to provide the final opinions with respect to the construction of works in general conformance with the design; site reviews from time to time as needed to review the constructed works, final walk-throughs, witnessing, and preparation of deficiency punch lists as part of providing sign off of the project.
- 4.2 The Service Provider will review the Prime Contractor's Quality Management Plan for the Construction Work including Inspection and Testing Plans. The Service Provider will rely upon the Prime Contractor's Quality Management System to support the development of opinions by the Professionals of Record. The Service Provider will identify the witness and hold points required to provide the Professionals of Record opinion that the Work has been constructed in general conformance with the design.
- 4.3 The Service Provider shall submit all as-built drawings, including revisions provided by the Prime Contractor, as per the definition of the Professional Engineers of Ontario. The Service Provider shall provide the as-built drawings from site instructions and "red-lined"

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plans and/or other project documentation of field changes provided by the Prime Contractor. The Service Provider shall not have any representative on site on a daily basis to record the as-constructed condition and therefore shall not seal any as-built or record drawings.

- 4.4 The Service Provider shall be present at the installation of geotechnical instrumentation including inclinometers, piezometers, settlement gauges, & surface monuments. All geotechnical instrumentation and drilling costs, access, drilling water, traffic control, protection, and utility locates necessary for the installation shall be provided by the Prime Contractor.
- 4.5 The Prime Contractor shall be responsible for monitoring horizontal and vertical movements of the ground surface and structures using their survey crew, and for taking readings from the instrumentations at appropriate intervals. The Prime Contractor will report these readings to the Service Provider who shall interpret them and report back any concerns and recommendations to the Prime Contractor.
- 4.6 The Service Provider shall identify the witness and hold points required for its staff to provide the site reviews necessary to provide its opinion with respect to the installation of municipal infrastructure as normally required by the Municipalities. The Service Provider will provide suitably qualified staff to complete the site witnessing and provide the documentation needed to support approval of the municipal infrastructure work by the relevant agencies.
- 4.7 The Service Provider will coordinate its design with the Civic Works as covered by Cash Allowances.

Article 5 – Post-Construction Services

The following services are included in the Service Provider's scope of work during the post-construction phase; all other post-construction design services are excluded and are Additional Services:

- 5.1 Review of maintenance manuals and warranty certification provided by the Prime Contractor that are required by the specifications developed by the Service Provider.
- 5.2 The Service Provider will provide engineering technical support in defense of Service Provider's design through the warranty period, which may include preparation of investigation reports and identification of solutions.
- 5.3 Services in support to the Prime Contractor in relation to contractual disputes in so far as they bring Service Provider's design or engineering into question.

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Article 6 – Exclusions from Services

The following services are excluded from the Services to be provided by the Service Provider:

- 6.1 The Service Provider shall not be responsible for determining the Prime Contractor's means and methods of construction, or for any supervision or direction of any Construction (including installation of any systems).
- 6.2 The Service Provider shall prepare all deliverables in English as per the Project Agreement. Any translation is excluded.
- 6.3 With respect to Tunnel design, the following services are excluded:
- (a) Design of the temporary works supporting excavation, as it pertains to mined tunnelling and mined station caverns, and the detailed design of the support of temporary excavation retaining wall systems. It is acknowledged the Service Provider has design responsibility to coordinate the permanent works design with the temporary works design.
 - (b) Orientation and training plan for excavation and support equipment and other major plants;
 - (c) Tunnel Quality Plan;
 - (d) Contingency Plan;
 - (e) Tunnel Commissioning Report.
- 6.4 With respect to the Traffic and Transit Management Plan, the following services are excluded:
- (a) The Plans.
 - (b) Temporary traffic control pavement markings and signage design.
 - (c) Temporary works related to short term detours as per OTM Book 7.
- 6.5 Reproduction of design drawings, specifications or other documents for distribution by the Prime Contractor to its staff and Subcontractors or any outside authority; for clarity, any reproduction of design drawings, specifications or other documents beyond the description in Clause 2.4.
- 6.6 Design of project elements typically performed by suppliers and their consultants, including but not limited to:
- (a) Standard structures including light poles, RSS retaining walls and RSS slopes, except that the Service Provider will design footings for these structures based on loads provided by the Suppliers;
 - (b) Standalone self supporting noise walls, except the Service Provider will design footings for these structures based on loads provided by the Suppliers;
 - (c) Sprinkler systems;
 - (d) Structural glazing systems.

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- 6.7 Smoothness testing of the completed pavements.
- 6.8 The following activities related to the Geotechnical Engineering Services are excluded:
- (a) In the Geotechnical investigation and testing program:
 - i. All work related to drilling, obtaining core samples, traffic control, utility locates and other site preparation works will be provided under Additional Services per Article 7.
 - ii. Sampling, laboratory testing and reporting of laboratory testing results during the construction phase of the project.
 - (b) in the Geotechnical Instrumentation and Monitoring Plan:
 - i. All necessary installations, instrumentation, access, drilling water, traffic control, utility locates and other related site preparation works will be provided and maintained by the Prime Contractor;
 - ii. The geotechnical laboratory testing instrumentation and monitoring and factory calibrated test certificates for instrumentation; and,
 - iii. As-built plans of geotechnical instrumentation installation locations;
 - (c) Well and Borehole Decommissioning Plan.
- 6.9 The design, procurement, supply, installation, review, test, commissioning or performance of:
- (a) Revenue vehicles provided by Alstom as noted in item 2.3 (u) or by others;
 - (b) Non-revenue vehicles;
 - i. Train control provided by Thales as noted in item 2.3 (u) or by others
 - ii. Integration between vehicles and train control systems, including identification and design of interfaces.
- 6.10 The Service Provider excludes alternate fire and code strategies involving on board vehicle fire suppression systems.
- 6.11 The Public Consultation design support by the Service Provider excludes:
- (a) Translation of materials into French will be provided by the Prime Contractor, and will be performed in a timely manner to not hinder production of the presentation materials;
 - (b) Preparation of graphic presentation materials beyond the provision of source digital design data; and,
 - (c) The Service Provider's responsibilities are limited to providing technical support only and is limited to the Design Development phase only as described in 2.3(x), any additional support will be an Additional Service as per Article 7.

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- 6.12 Legal and financial services and, except as required to fulfill the Service Provider's obligations under this Services Agreement, other non-technical professional services.
- 6.13 Preparation of drawings used for fabrication detailing and material placement and erection for concrete reinforcement, structural steel, miscellaneous fabrications, and other permanent and temporary construction materials.
- 6.14 Material take-offs, including Bills of Quantities, for the purpose of estimating, tendering or materials ordering.
- 6.15 Except as provided under Article 5, any services during the operation and maintenance phase of the project and, if any such services are requested and agreed to, such services will be performed as an Additional Service.
- 6.16 Any Services directly related to the design and construction of the Highway 417 widening. It is acknowledged design work associated with the Highway 417 widening work, such as the traffic management design including long term diversions, and temporary bus layover facilities as required under the Project Agreement are elements of the Service Provider's scope of work that are included in its base services.
- 6.17 The Service Provider's review of third party design and construction is limited to coordination of design related parameters with, and review of interface of such with, the Service Provider's Services.
- 6.18 As provided for in Articles 7 and 8, and where exclusions or Additional Services are expressly provided for elsewhere in the Agreement.

Article 7 – Additional Services

- 7.1 For clarity, all Additional Services will be undertaken, if requested by the Prime Contractor, either on an hourly rate plus expenses basis, or a fixed fee tied to a clearly defined scope of work, in any case as additional compensation paid to Service Provider as increases to the Contract Price.
- 7.2 Changes to the design concepts and scope of work to that reflected in RFP Technical Submission, or as indicated in Appendix A, if requested by the Prime Contractor, will be undertaken as Additional Services.
- 7.3 The Service Provider shall provide an estimation cost of any additional services requested by the Prime Contractor and it must be approved by the Prime Contractor in writing prior to commencing with any additional work. Should the Prime Contractor require Additional Services to commence immediately, the Service Provider may commence its work on a time and material basis upon written instructions by the Prime Contractor prior to the approval of additional price.
- 7.4 The Service Provider reserves the right to limit its resources committed to support any Additional Services to the extent necessary to avoid compromising its ability to deliver the Design Services in accordance with the provisions of this Agreement. The Prime Contractor will have the right, at its own cost and risk including as required to hold Service Provider harmless from any impacts on the Design Services arising from such subcontracting of additional services, to subcontract some elements of the additional

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services to external companies in the event the Service Provider is not willing or able to commit adequate resources for Additional Services.

- 7.5 Design of temporary services for the Prime Contractor defined as temporary construction power for tunnelling, temporary street lighting, temporary traffic signals and temporary relocation of heating and cooling lines for the University of Ottawa utilidor, and temporary ventilation for the underground works, can be provided at the request of the Prime Contractor.
- 7.6 The Service Provider, if requested by the Prime Contractor, as Additional Services, shall develop and perform the processes and procedures for testing and commissioning of the works. (stations, tunnel, MSF, trains and systems) including assistance, test witnessing and advice as required by the Prime Contractor.
- 7.7 The Service Provider shall provide, if requested by the Prime Contractor, pre-construction condition surveys of existing buildings, structures, utilities, pavements and other features as per Schedule 15 delivering as per Section 3.6 of Schedule 10, Appendix A of the Project Agreement as Additional Services.

Article 8 – Clarifications

- 8.1 The Prime Contractor shall provide in its project offices, suitable space for 12 project management and design staff in Ottawa. The space will be furnished in a manner suitable for a design office, complete with meeting rooms, printers/photocopiers/fax machines, plotter, power, phones, data cabling (back to a central computer room) and a dedicated (for only the use of the Service Provider) high speed internet connection. The Service Provider shall provide computers and servers for its own staff.
- 8.2 The Prime Contractor shall participate in the design development phase and as result of it, any technical proposals developed by the Prime Contractor shall be evaluated by the Service Provider, subject to Article 2.1 and 7.2 herein.
- 8.3 Approval must be granted for each of the Design Elements to be included within the Service Provider's Scope of Works, by the Prime Contractor in a timely manner prior to the submission of the relevant package to the City or any other relevant Authority.
- 8.4 Design criteria shall be as defined in the Project Agreement.
- 8.5 The Service Provider shall not seek additional remuneration for design refinements during the normal course of design development required throughout the duration of this Agreement. The Service Provider shall not seek additional remuneration for work to perform design changes to the extent necessary due to errors in the Design not contributed to by Prime Contractor or any person or entity for which Prime Contractor is responsible in law. Any change to the design concepts in the Proposal will be Additional Services, as further described in Article 2.1 and 7.2 herein.
- 8.6 The Prime Contractor will be responsible for preparing, managing, filing applications for, paying for and expediting all government agency, municipal, transit agency, railway company, utility company, and private property owner, permits and approvals as necessary for site investigation and construction to proceed. The Service Provider will provide the Prime Contractor with design drawings and technical information (in electronic

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**SERVICES AGREEMENT
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format) required for applications for permits and approvals, and will attend application meetings in support of the Prime Contractor as may be required from time to time. Responsibility for delays in approvals is further described in Article 3.3.

- 8.7 The Prime Contractor shall be responsible for managing and expediting all utility relocations performed by utility companies (including design performed by the utility companies), and for obtaining approvals for utility relocation work undertaken by the Prime Contractor. The Service Provider shall undertake necessary design for relocation and protection as part of its Basic Design Services, attend meetings in support of the Prime Contractor as may be required from time to time.
- 8.8 The systems design considered as part of the Basic Design Services includes preliminary engineering, detailed design and design review. Construction Phase Services include engineering support through the procurement, construction and testing and commissioning phases as set out in Article 4.1 above and, subject to Article 6, engineering support of technical specification for procurement by Prime Contractor of systems components. Except as provided in the foregoing sentence or otherwise expressly provided under Article 4, all procurement and all work related to construction and insitu testing and commissioning are considered Additional Services.
- 8.9 The Service Provider's Basic Design Services efforts are based on design and construction of project-wide standardized design details, specifications and configurations where reasonable and practical, on a project-wide basis.
- 8.10 The scope of the geotechnical design phase investigation program is as per Exhibit 1 – Proposed Additional Geotechnical Investigation Program – Segment 2.
- 8.11 The Service Provider shall not be responsible for obtaining and paying for the insurance policies required to be obtained through the Infrastructure Ontario Construction Insurance Program (IOCIP).

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EXHIBIT 1

PROPOSED ADDITIONAL GEOTECHNICAL INVESTIGATION
PROGRAM – SEGMENT 2

See attached.

[End of Appendix B.]

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PROPOSED ADDITIONAL GEOTECHNICAL INVESTIGATION PROGRAM – SEGMENT 2

1. INTRODUCTION

This memorandum presents recommendations for additional geotechnical investigation for the detailed design of the Ottawa Light Rail Transit (OLRT) Project, tunnel section between Tunney's Pasture to Blair Rd. Recommendations for additional hydrogeological investigation will be included in a separate memorandum prepared by SNC-Lavalin/MDH.

The assessment of required additional investigation was based on a review of the information included in the following documents:

- A. Golder Associates, GDR Geotechnical and Hydrogeological Investigation, Ottawa Light Rail Transit (OLRT) Tunnel (Segment 2), Ottawa, Ontario, dated December 2011 and Amendments 1 through 5.
- B. Golder Associates, Additional Geotechnical Investigations, Ottawa Light Rail Transit (OLRT) Project, dated March 09, 2012.

The results of the investigation outlined in Reference B have not been made available by the Sponsor during the preparation of this memorandum.

2. PROPOSED INVESTIGATION PROGRAM

The investigation program carried out to date by the Sponsor's Engineers at Segment 2 is considered appropriate for establishment of subsurface conditions along the underground portion of the Ottawa LRT Project for proposal preparation stage of the project. Based on the current tunnel alignment and station layouts dated May 28, 2012, only few additional piezocones, boreholes, field and laboratory tests are considered required for detailed design of the underground structures.

The proposed additional investigation program aims at providing information to refine the design and to address the following issues:

- Establish more details about the extent of the buried valley at the East Portal, and to obtain better definition of the thickness and constitutive properties of the Leda Clay deposit present in this valley. The Leda Clay is very compressible and may result in large heave and settlements when subject to stress relief and groundwater table drawdown. A preliminary assessment of the proposed temporary shoring for the East Portal excavations indicate that a watertight support of excavation will be required in order to reduce potential for damage to nearby underground utilities and structures. During final design, this requirement will be revisited in light of the

additional investigation proposed herein. Additional cone penetration tests (piezocones) advanced to the top of bedrock and one borehole advanced 3m into the bedrock are proposed at the East Portal, at the locations shown in Figure 1, Appendix A. Seismic Refraction is also recommended along the two green lines shown in Figure 1.

- Obtain more details about the rock properties at the West Portal, where the tunnel will be excavated with shallow crown cover under Commissioner Street and close to utilities. The proposed borehole location is shown in Figure 2, Appendix A.
- Obtain more details about the rock properties at the Rideau Station. The proposed borehole location is shown in Figure 3, Appendix A.
- Obtain more details about the rock properties and rock cover at the Downtown East Station. The proposed borehole locations are shown in Figure 4, Appendix A.
- Obtain more details about the rock properties at the Downtown West Station. The proposed borehole location is shown in Figure 5, Appendix A.

Table 1 in Appendix A provides a summary of the additional investigational program proposed herein.

3. CLOSURE

This memorandum presents additional geotechnical investigation requirements after contract award. Depending on the results of the additional investigation currently being carried out the Golder, additional investigation may be required. Additional investigation may also be required after contract award depending on modifications made to the tunnel alignment, and on the final location of stations, access and ventilation shafts.

This memorandum has been prepared by:

Luciana Thomasi, M.Sc.

and reviewed by:

Paulo Branco, Ph.D., P.Eng.

Thurber Engineering Ltd.

June 11, 2012



APPENDIX A
Table 1
And
Figures 1 through 5

Table 1 - Jun 11, 2012

Table 1 - Proposed Additional Geotechnical Investigations.

BH/Test ID	Location	Anticipated Depth	Drilling/Sampling Method	Sampling Type and Frequency	Installation	Laboratory / In situ testing
C-1	East Portal	~103+254 - north of the tunnel alignment	Piezocene	No sampling	-	Cone penetration test with pore pressure measurements
C-2		~103+254 - within the tunnel alignment	Piezocene	No sampling	-	Cone penetration test with pore pressure measurements
C-3		~103+254 - south of the tunnel alignment	Piezocene	No sampling	-	Cone penetration test with pore pressure measurements
BH-1	-	~103+254 - within the tunnel alignment	Hollow stem augers or mud rotary and HQ Coring in Bedrock	Vane test at about 1m interval, two Shelby tubes within the unweathered crust clay	Multi level (two) monitoring wells (one near top of rock and two in the overburden below the water table)	Two Sieve and hydrometer tests, two Specific Gravity and two Oedometer tests
-		~103+220 to 103+330	-	-	-	Seismic Refraction along the Sections shown in Figure 1
BH-2	West Portal	18 m ~6m below the Tunnel Invert	Hollow stem augers or mud rotary and HQ Coring in Bedrock	SPTs at 0.75m intervals in the overburden and HQ size core	Monitoring Wells screened in the bedrock at the tunnel crown	Packer tests in the bedrock. Detailed rock core log and photographs. Strength tests at approximately 3m intervals in the bedrock
BH-3	Rideau Station	36 m ~6m below the Station Invert	Hollow stem augers or mud rotary and HQ Coring in Bedrock	SPTs at 0.75m intervals in the overburden and HQ size core	Monitoring Wells screened in the bedrock at the station crown and invert levels	Detailed rock core log and photographs. Strength tests at approximately 3m intervals in the bedrock
BH-4	Downtown East Station	~101+660	Hollow stem augers or mud rotary and HQ Coring in Bedrock	SPTs at 0.75m intervals in the overburden and HQ size core	Monitoring Wells screened in the bedrock at the station crown and invert levels	Packer tests in the bedrock. Detailed rock core log and photographs. Strength tests at approximately 3m intervals in the bedrock
BH-5		~101+585				
BH-6	Downtown West Station	27 m ~6m below the Station Invert	Hollow stem augers or mud rotary and HQ Coring in Bedrock	SPTs at 0.75m intervals in the overburden and HQ size core	Monitoring Wells screened in the bedrock at the station crown and invert levels	Packer tests in the bedrock. Detailed rock core log and photographs. Strength tests at approximately 3m intervals in the bedrock

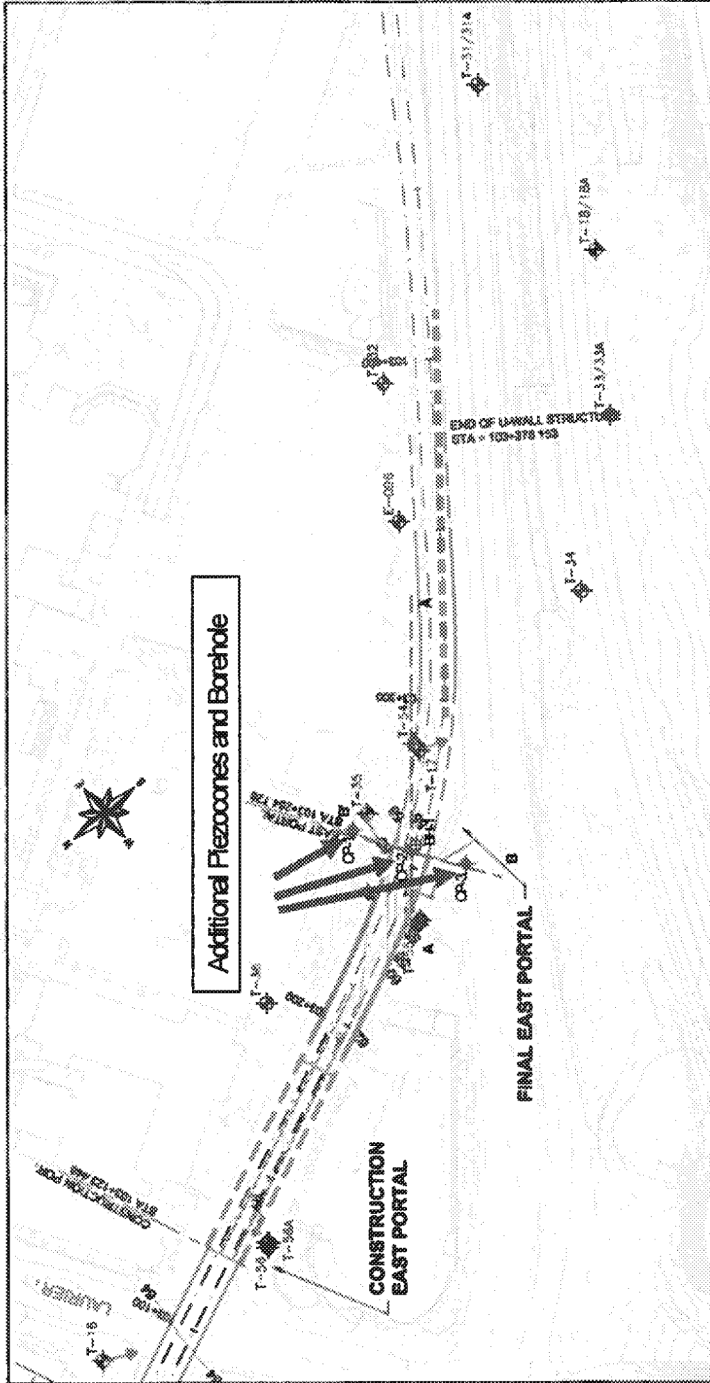


Figure 1 -- Additional Investigation -- East Portal.

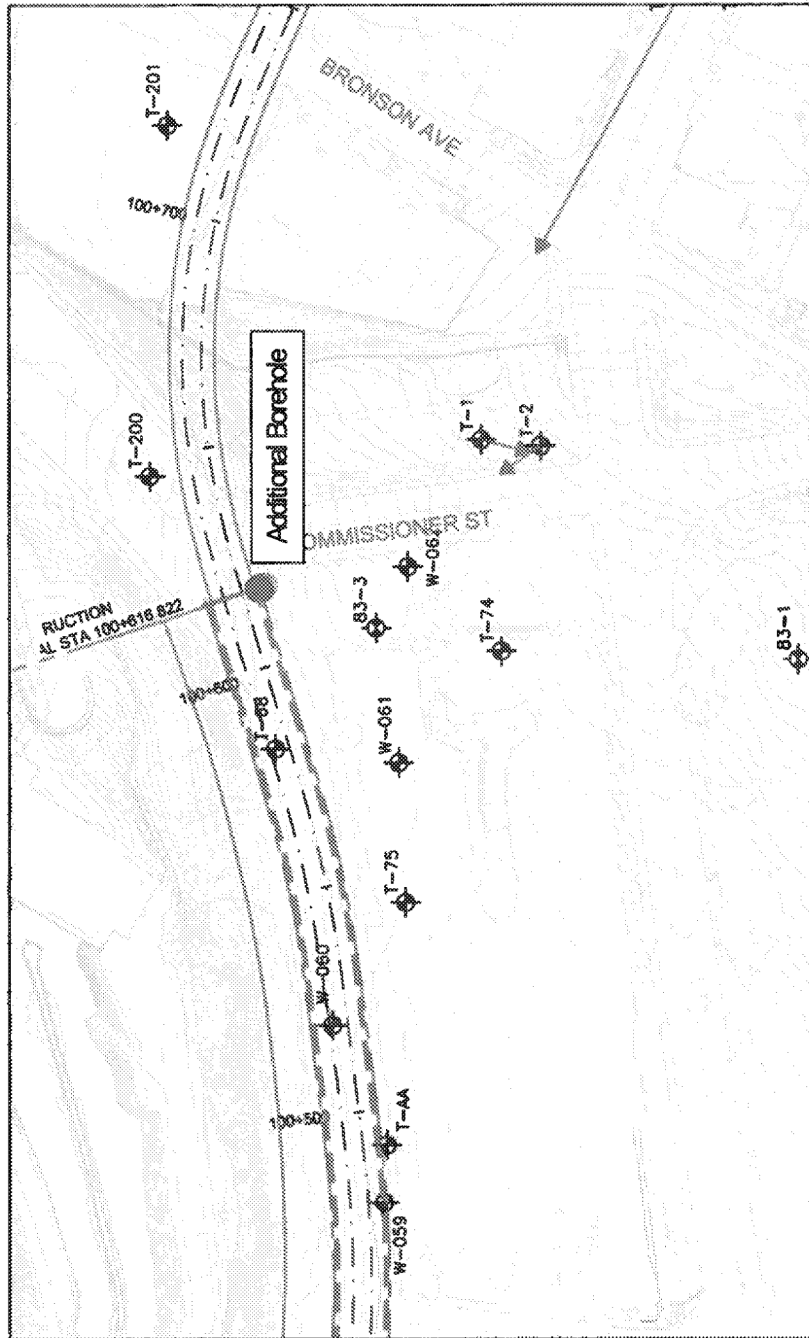


Figure 2 – Additional Borehole at West Portal.

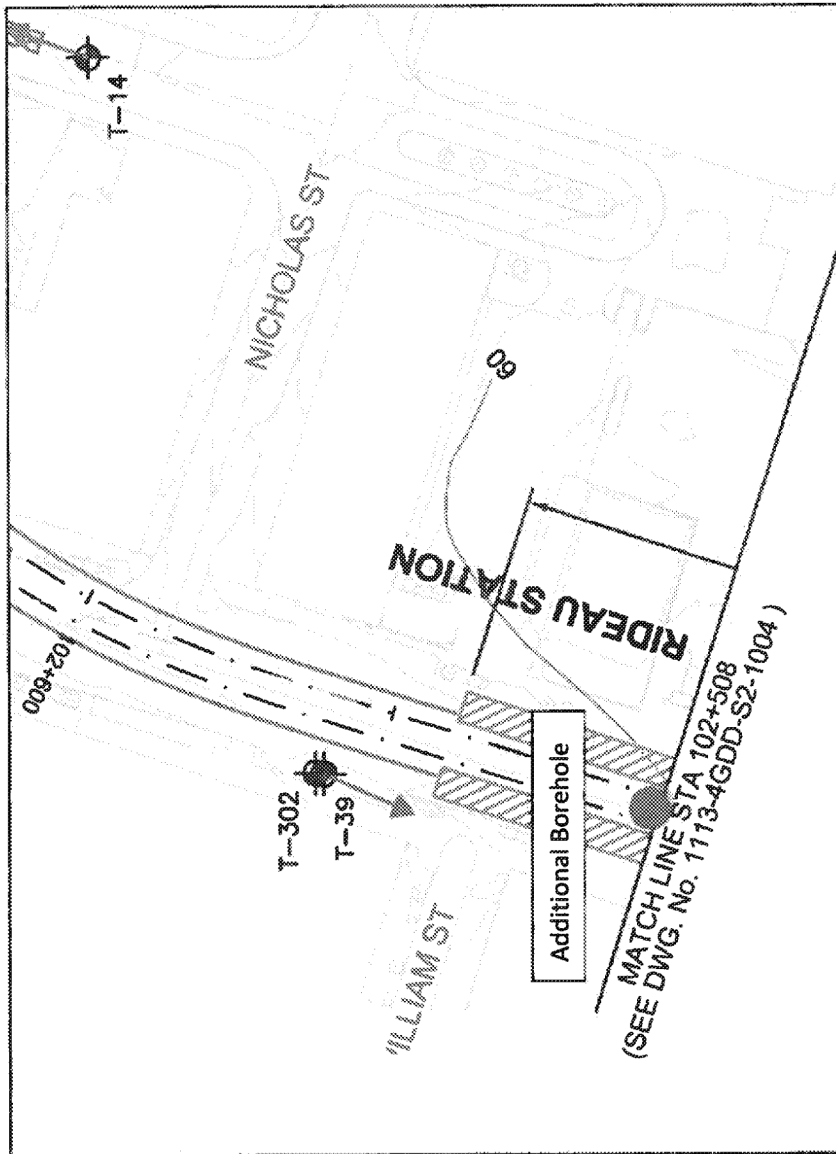


Figure 3 – Additional Borehole at Rideau Station.

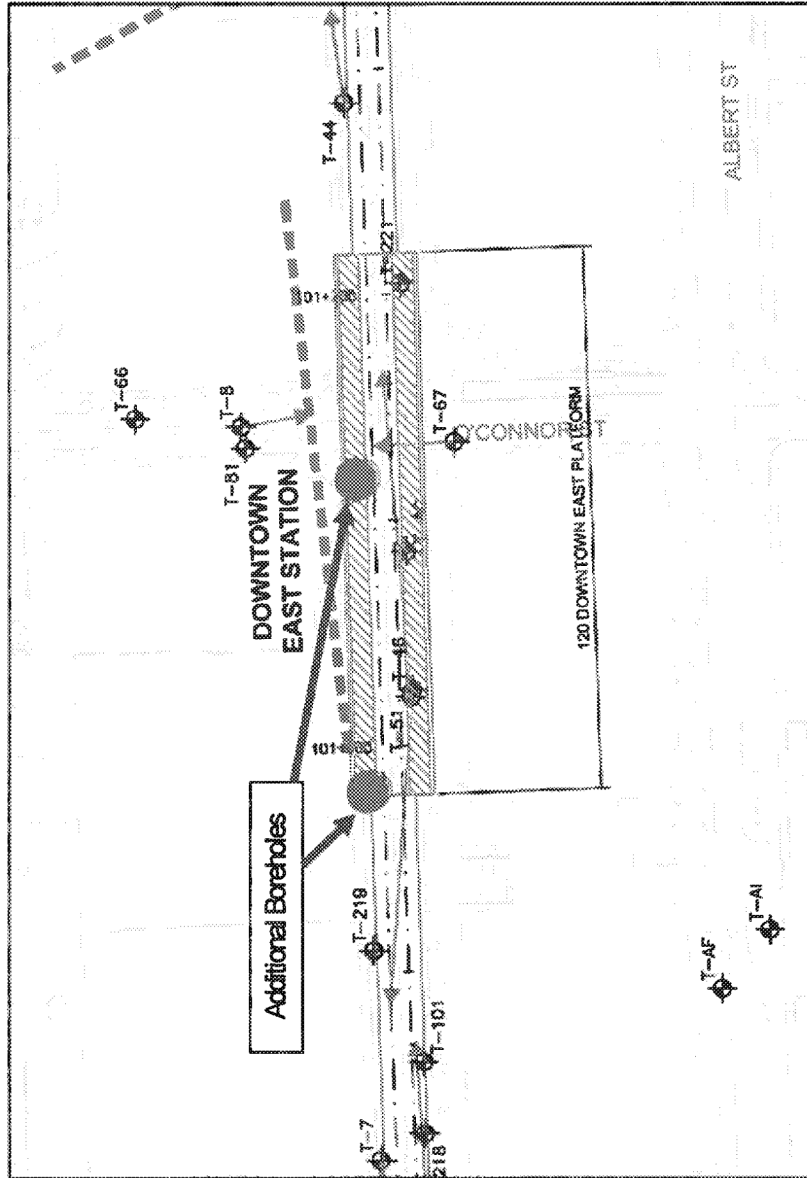


Figure 4 – Additional Boreholes at Downtown East Station.

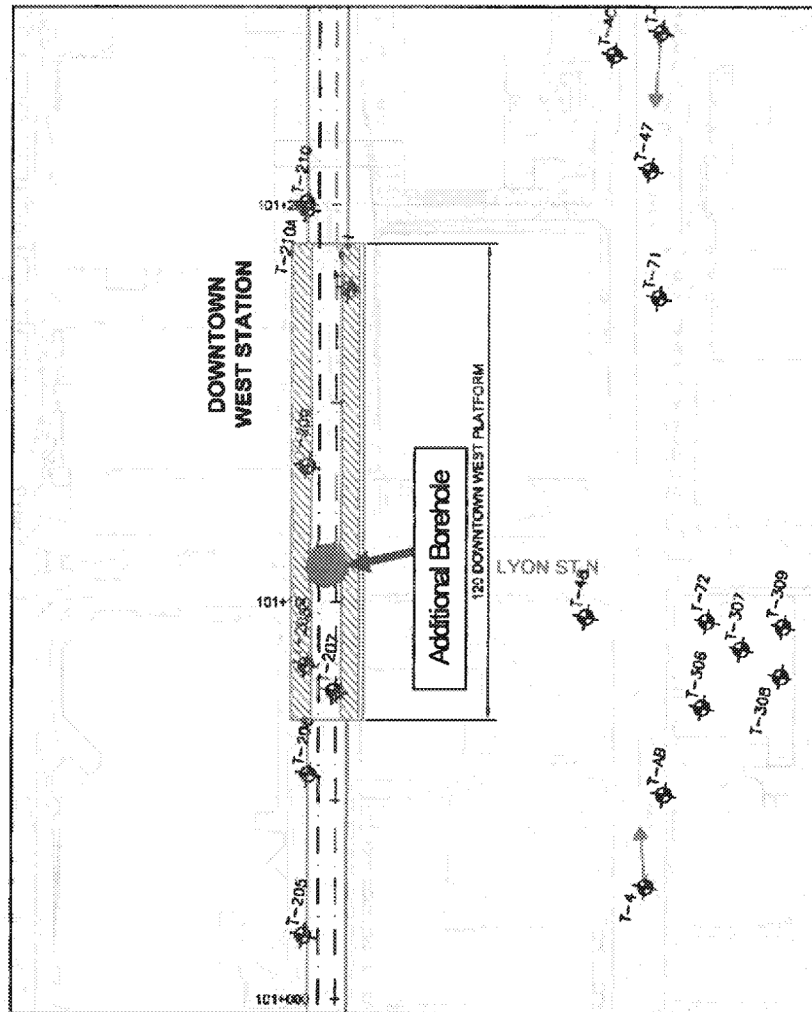


Figure 5 – Additional Borehole at Downtown West Station.

APPENDIX C

SCHEDULE DATES

1.0 Commencement Date and Term. The Service Provider shall start performing the Services as of **March 18th, 2013** (the "**Commencement Date**") and, subject to the provisions contained in this Agreement, shall continue to do so until the earlier of the termination of this Agreement or the date upon which the Service Provider has completed the Services, said period being the "**Term**".

2.0 Construction Schedule

The Prime Contractor shall refine the construction schedule based on the schedule prepared during the bid phase and incorporate detailed tasks and steps required in the design process. The Prime Contractor shall develop these design predecessors, tasks, durations, and linkages in consultation and agreement with the Service Provider. The Service Provider shall render the Services in accordance with the final agreed-upon construction schedule (the "**Construction Schedule**").

The Prime Contractor may from time to time make changes to the Construction Schedule, provided however that whenever making changes that affect the Service Provider and its performance of Services, the Prime Contractor shall provide the Service Provider with a revised Construction Schedule for review. The Service Provider may at any time within seven (7) Business Days after receipt of this revised Construction Schedule advise the Prime Contractor that:

- (a) It has no objections to the revised Construction Schedule; or
- (b) It has objections, along with reasonably specific and detailed particulars for each objection.

If the Service Provider responds in accordance with (b), above, the Parties shall thereafter make reasonable and good faith efforts to review and address the Service Provider's objections, including without limitation via further changes to the Construction Schedule, the Change Order process set out in GC 2.15, or other measures as appropriate and applicable.

If the Service Provider responds other than in accordance with (b), above, the revised Construction Schedule shall be deemed to have been accepted by the Service Provider.

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3.0 Milestone Dates and Definitions

<p>Milestone #1 - West and East Portals and Intermediate shaft.</p> <p><u>East Portal:</u></p> <p><u>Assumptions:</u></p> <ol style="list-style-type: none"> 1. Prime Contractor to confirm in writing the design and construction concept for the temporary portal; 2. Prime Contractor to negotiate temporary access requirements serving adjacent properties 3. Prime Contractor input will be required in the development of the TTMB 4. The use of an early works package may be implemented. <p><u>Deliverables:</u></p> <ol style="list-style-type: none"> 1. Issue for I Construction drawings for the Nicholas Phase I detour (including utility relocation plans) 2. Updated TTMP, BRT Closure Letters and Lane Closure Letters for the Nicholas Phase I detour; 3. Issue for Construction drawings for the East Portal structure but excluding fencing , landscape drawings 5. Pavement Design report for the Nicholas Phase I detour; 6. Geotechnical and Groundwater monitoring report for the Portal Shaft; and 7. Noise & Vibration monitoring plan. <p><u>West Portal & Intermediate tunnel Shaft:</u></p> <p><u>Assumptions:</u></p> <ol style="list-style-type: none"> 1. Prime Contractor to confirm in writing the design and construction concept 2. Prime Contractor input will be required in the development of the TTMB 3. The use of an early works package may be implemented. <p><u>Deliverables:</u></p> <ol style="list-style-type: none"> 1. Issue for Construction drawings for the West Portal utility relocation drawings 2. Issue for Construction drawings for the West Portal structure but excluding fencing , landscape drawings 3. Issue for Construction drawings for the Intermediate tunnel shaft 4. Updated TTMP, BRT Closure Letters and Lane Closure Letters for the West Portal Shaft and Intermediate Portal Shaft; 5. Geotechnical and Groundwater monitoring report for the Portal Shafts; and 6. Noise & Vibration plan 	<p style="text-align: right;"><i>July 26, 2013</i></p> <p style="text-align: right;"><i>July 26, 2013</i></p>
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<p>Milestone #2 - Tunnel Drawings and Station Caverns</p> <p><u>Assumptions:</u></p> <ol style="list-style-type: none"> 1. Prime Contractor to confirm in writing the design and construction concept for tunnel and station caverns; <p><u>Deliverables:</u></p> <ol style="list-style-type: none"> 1. Issue for Construction drawings for running tunnel and specified associated underground station caverns . Station cavern drawings include structural shell, concourse slab and steel tie members needed to perform the cavern construction. Details to be agreed. Drawings do not include mechanical, trackwork and systems drawings needed for tunnel fit out. Station drawings do not include those elements included in Milestone 7 2. Drainage of the tunnel; 3. Geotechnical and Groundwater Monitoring reports; 4. Noise & Vibration report 	<p><i>December 02, 2013</i></p>
<p>Milestone #3 - 2nd pre-final design pkg submission - PS&D/TPSS</p> <p><u>Deliverables:</u></p> <ol style="list-style-type: none"> 1. AC & DC circuit breaker control schematic diagrams; 2. fire and smoke detection, security and intrusion detection concept of operations and riser diagrams; 3. DC house power (battery charger, battery bank, load study); 4. AC house power (auxiliary transformer, panelboard, load study); 5. ground grid design calculations and designs for each traction power substation; 6. TPSS site plans; 7. TPSS elevations and details (indicating architectural treatment); 8. communications interface drawings and details; 9. AC/DC and rectifier plans, elevations and details; 10. guideway plans, elevations and details; 11. cable and conduit schedules; 12. protective relaying schematics; 13. traction feeder schedule; 14. TPSS civil and structural drawings; 15. yard and shop DC distribution plan and details; 16. HVAC calculations; and 17. Pre-fabricated substation structural calculations (if required). 	<p><i>November 13, 2013</i></p>
<p>Milestone #4 - MSF connector Issue for Construction drawings</p> <p><u>Deliverables:</u></p> <ol style="list-style-type: none"> 1. Guideway Civil drawings 2. Utility Relocation Plans 3. Cut and Cover Structure Drawings 4. VIA Temporary Support Drawings 5. MSF and Access Track Noise Report 6. Belfast Road Detour drawings 7. Pavement Design report for the Belfast Road Detour 8. Geotechnical Reports for the Cut and Cover Tunnel structure 	<p><i>February 08, 2014</i></p>

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Milestone #5 - Trackwork Issue for Construction Drawings <u>Deliverables:</u> <ul style="list-style-type: none"> • Segment Wide Track drawings including details 	<i>January 10 2014</i>
Milestone #6 - MSF (building and yard) complete package Final Construction drawings <u>Deliverables:</u> <ul style="list-style-type: none"> • Issue for Construction Drawings for the MSF buildings and yard 	<i>February 20, 2014</i>
Milestone #7 - Underground Stations complete package Final Construction drawings <u>Deliverables:</u> <ul style="list-style-type: none"> • Issue for Construction Package for station caverns (structural) only 	<i>October 02, 2014</i>
Milestone #8 - Stations Bundle 3 & 4 Final Construction drawings <u>Deliverables:</u> <ul style="list-style-type: none"> • Issue for Construction Drawings for Tunney's Pasture, Bayview, LeBreton, Hurdman & Train stations. 	<i>May 04, 2015</i>
Milestone #9 - Stations Bundles 1 & 2 Final Construction drawings <u>Deliverables:</u> <ul style="list-style-type: none"> • Issue for Construction Drawings for Campus, Lees, St. Laurent, Cyrville and Blair stations 	<i>November 21, 2015</i>

[End of Appendix C.]

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APPENDIX D

PRICE AND PAYMENT

A. GENERAL TERMS

1. **Contract Price.** The Contract Price has the meaning given to it in Article A-2 and includes but is not limited to all fees, expenses, costs and charges of any nature incurred by the Service Provider while providing the Services to the Prime Contractor. The Contract Price shall be deemed to be the total remuneration for the Services in full and complete payment for the rendering of the Services in accordance with the provisions of this Agreement. Provided that the Contract Price excludes the taxes expressed in Article A-2 to be excluded therefrom.
2. **Schedule of Values.** Prime Contractor and Service Provider will agree on a Schedule of Values to be used for monthly billing of the Contract Price, which is to be included as [Exhibit 1] to this Appendix D. The Schedule of Values will be based on the format in which the Contract Price is broken down in the Service Provider's offer.

The Prime Contractor or Project Co, or their respective representatives, may visit the Designer's offices to inspect the progress of the Project design at any reasonable time during the performance of the Services.

B. PAYMENT APPLICATION AND INVOICING

3. **Payment Applications and Invoicing.** The Service Provider will submit monthly payment applications no later than the 25th day of each month. Late payment applications will be processed in the next payment period. The payment application will be in a form to be agreed by the Parties, and it will set out the Service Provider's payment claims in relation to the Services. The approval of the Service Provider's payment claims is subject to acceptance by the Prime Contractor, acting reasonably, of the relevant Services. Once approved by the Prime Contractor, the Service Provider's payment claims shall be paid within 30 days from the invoice date. Any payment by Prime Contractor shall not be interpreted as final acceptance of the Services for which such payment was made.
4. **Payment – Pay When Paid.** It shall be a condition of Prime Contractor's obligation to pay the Service Provider that the Prime Contractor shall have received payment (or partial payment) of the amount the Prime Contractor requested for Service Provider's approved payment claims from Project Co. The Prime Contractor shall pay the Service Provider for all such amounts within fifteen (15) days of receipt of the above payment from Project Co.

Provided that, if Ottawa, Project Co or lenders are holding or not approving the Project Co's or Prime Contractor's payment or draw request, as applicable, for reasons unrelated to the Service Provider's Services), the Prime Contractor shall pay Service Provider's invoices within 45 days of receipt.

However, if Prime Contractor's refusal or failure to pay is on the grounds that it has not received payment on account of such Services from Project Co and such non-receipt by

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Prime Contractor is not caused by Prime Contractor (including subcontractors and other parties for which the Prime Contractor is responsible except the Service Provider), then, subject to Prime Contractor's obligations under this Agreement to pursue such payments by Project Co, the Prime Contractor shall only have the obligation to pay Service Provider when and to the extent it receives payment for Service Provider's payment claims from Project Co.

5. **Invoices.** The Service Provider shall render to the Prime Contractor invoices that are generally commensurate with the progress of the Services.
6. **Back-Up.** The Service Provider shall submit with each payment application a breakdown specifying the percentage of completion to date for each task. The Service Provider shall submit copies of receipts and/or supporting documentation for all disbursement charges to be paid in addition to the fixed lump sum as required by the Prime Contractor to verify such invoice. All disbursements paid in addition to the fixed lump sum shall be paid at actual cost without any mark-up.
7. **Reimbursable Travel Expenses.** If the Prime Contractor has given prior written consent to reimburse the Service Provider for travel and accommodation expenses incurred in the course of performing the Services, then the Service Provider must provide invoices for travel costs to be paid in addition to the fixed lump sum according to guidelines approved by the Prime Contractor's Project Director and supported by the receipts for all costs incurred and for which payment is sought.
8. **Contested Items and Back-charges.** If the Prime Contractor contests any item or part of an item in a payment application submitted by the Service Provider, the Prime Contractor will give prompt notice with reasons for contesting the item. All payment claims not contested will be processed in accordance with the above procedure and approved amounts will be paid by the Prime Contractor per the terms of this Appendix D.

The Prime Contractor shall have the right to set-off and deduct from amounts otherwise due the Service Provider any back-charges which the Prime Contractor and Service Provider have agreed are due the Prime Contractor. In the event the Prime Contractor and Service Provider fail to agree whether back-charges claimed by Prime Contractor are properly due within 30 days after written notice thereof from Prime Contractor to Service Provider, either Party may seek resolution of the dispute under GC 8.

9. **Invoice Submissions.** Invoices on the Service Provider's printed letterhead only shall reference the **Services Agreement Number 001-SA-01** and shall be forwarded to:

**Project Accounting Office
 Carlos Sancho
 1600 Carling Avenue, Suite 450
 Ottawa, On, K1Z-1G3
 Tel: (613) 916 6563**

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C. TAXES

10. **Withholding Taxes.** On any services rendered in Canada by a non-resident of Canada, the Prime Contractor is under a legal obligation to withhold, in accordance with the Canadian Income Tax Act, a withholding tax of 15%, which is calculated on the amount of fees charged by the Service Provider. If such non-resident renders the Services in Quebec, the Prime Contractor will also withhold an additional 9% withholding tax on the amount of fees charged by the Service Provider. The Service Provider shall identify those Services rendered in Canada by non-residents as a separate line item on each invoice.
11. **HST, GST, PST.** The Service Provider's invoices will show HST, GST and PST, if applicable, as separate line items.
12. **Holdback.** Where required pursuant to the provision of the Construction Lien Act, Ontario, R.S.O 1990, c.C. 30, all payments to the Service Provider shall be subject to the holdback, unless agreed to by the Parties and Project Co. Provided that where the Prime Contractor has posted alternative security to secure the release of the holdback under the Prime Contract, the Service Provider will be similarly entitled to post alternative security to secure the release of the holdback under this Agreement..

D. CHANGES

13. **Unit Prices.** The following table contains the staff categories / functions, locations and charge-out rates inclusive of benefits, employer contributions, overhead and profit, and exclusive of GST, PST, HST and other value added taxes, of the Service Provider's employee(s) or Sub-Contractors who will render the Services. These rates shall be used as a basis for Change Orders and other calculations to changes in the Services and additional or reduced work.

Category ID	Category Description	Standard Hourly Rate
1	Executive/Senior Vice President or Director	\$330.00
2	Vice President or Senior Consultant	\$290.00
3	Design Manager, Deputy Design Manager, Manager	\$245.00
4	Senior Project Manager	\$210.00
5	Senior Specialist	\$185.00

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6	Project Manager	\$155.00
7	Senior Project Personnel	\$130.00
8	Senior Professional	\$120.00
9	Professional or Project Personnel	\$110.00
10	Senior Technical /CAD	\$100.00
11	Senior Designer, CAD Tech, Senior Clerical	\$90.00
12	Intermediate Technical/Field/CAD	\$75.00
13	Junior Technical/Field/CAD	\$70.00
14	Intermediate Clerical	\$80.00
15	Support	\$60.00

- . Rates are subject to annual review and adjustment in accordance with CPI
- . Sub-consultant rates will be passed through at cost to RTGE Joint Venture plus a 5% mark-up.

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EXHIBIT 1

SCHEDULE OF PAYMENTS

Invoicing Month	Payment Milestone	Design Services	Construction Services	Cumulative Maximum not to exceed
Mar-13	Mobilization Payment			
Apr-13	Quality Management Plan			
May-13	Segment 2 Nicholas Phase 1 Detour Complete (submitted to City)			
Jun-13	West & East Portal Utility Relocation Design Complete			
Jul-13	MSF Access Track Roadway Design Complete			
Aug-13	Segment 2 - Roadway Detour Design Complete			
Sep-13				
Oct-13	MSF Access Track - Civil Design Complete			
Nov-13				
Dec-13	Segment 2 - Civil Design Complete			
Jan-14				
Feb-14	MSF Facility Design Complete			
Mar-14				
Apr-14	Trackwork & Alignment Design Complete			
May-14				
Jun-14	Segment 4 - Civil Design Complete			
Jul-14				
Aug-14	Segment 3 - Structural (Hurdman Elevated guideway, Mann Ave. Bridge & VIA Rail East D-Ring)			
Sep-14				
Oct-14	Train Station Design Complete			
Nov-14				
Dec-14	LeBreton Station Design Complete			
Jan-15				
Feb-15	Segment 3 - Civil Design Complete			
Mar-15				
Apr-15	Systems completed			
May-15				
Jun-15	Stations Design Complete			
Jul-15				
Aug-15	Design Complete			
Sep-15				

Component pricing

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Oct-15			
Nov-15			
Dec-15			
Jan-16			
Feb-16			
Mar-16			
Apr-16			
May-16			
Jun-16			
Jul-16			
Aug-16			
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May-18			

Component pricing

[End of Appendix D.]

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