



**Solicitation No. T8080-200129  
Advance Contract Award Notice**

An ACAN is a public notice indicating to the supplier community that a department or agency intends to award a contract for goods, services or construction to a pre-identified supplier, thereby allowing other suppliers to signal their interest in bidding, by submitting a statement of capabilities. If no supplier submits a statement of capabilities that meets the requirements set out in the ACAN, on or before the closing date stated in the ACAN, the contracting officer may then proceed with the award to the pre-identified supplier.

**1. TITLE**

GRADEX – Maintenance, Updates, Improvements and Further Developments

**2. DEFINITION OF THE REQUIREMENT**

Transport Canada (TC) promotes safe, secure, efficient and environmentally responsible transportation. TC works with other government departments and jurisdictions as well as the industry and academia to ensure that Canada's transportation system fulfills the above requirements.

The Rail Safety group uses a number of information sources and tools to design and implement a risk-based approach to its oversight of grade crossings. One of these tools is GradeX, a software tool developed by the University of Waterloo and currently being used by Transport Canada. Its interface is web-based, and the back end server is hosted by the University.

**3. BACKGROUND**

**Criteria for assessment of the Statement of Capabilities (Minimum Essential Requirements)**

Objective/Requirement

TC is seeking a Contractor with the capacity to provide a software and server system that must be able to assess the safety risk of Canadian grade crossings and rank them. In addition, software maintenance/updates are to be included and must align with and include all updates to the statistical modelling, considering new rules and variables as they become available.

The software and server system need to be:

- backwards compatible with today's results and currently existing data (to ensure continuity in the evaluations and projects),
- regularly updated,
- "user-friendly" (GUI based) and,
- accessible for TC employees via a secure web-based portal,
- able to export results at a minimum in pdf, jpeg, or MS Excel file formats



#### 4. DELIVERABLES

##### Access Capacity

The Contractor must have the capacity to provide TC with secure web based access to Canadian railway crossing data and statistics, in which pre-determined query parameters will be used to provide information on railway crossing inventory data and collision data which will be used to aid in program oversight.

##### Technical Solution

The Contractor must have the ability to provide and/or develop a customized technical solution capable of providing TC employees with the ability to access the Contractor's services from TC's offices or other work locations.

The Contractor must have a technical solution that at a minimum has the capacity to provide the following:

- provide a view of crossing data and statistics, which can be used for information purposes,
- generate an inspection list, using specific criteria parameters, which will be used by the Rail and Safety group to play a key role in selecting the random inspection component for their oversight program,
- identify hotspots (high risk collision crossings) in order for Rail and Safety to monitor and ensure that a mitigation plan is put in place to improve the crossing,
- be able to display results of queries on a graphical map of Canada allowing exploration of various regions as required,
- aid the group in making project funding allocation decisions concerning the Rail Safety Improvement program, according to the risk level of the crossings,
- perform before/after analyses to demonstrate the potential safety risk improvement,
- evaluate cost-effectiveness of safety projects,
- at a minimum allow for user searches by province on crossing statuses, crossing inventory, collision data, railway authority, crossing type, maximum train and vehicle speeds, number of tracks and lanes, urban/rural environment,
- flexibility on adding Transport Canada defined or future reporting fields as required,
- User account maintenance, and
- Ongoing general aid and troubleshooting/refinement ability.

Over the course of the yearly contract, the following is an estimated list of tasks at a minimum that will need to be performed:

- update inventory and collision data used by the software/hardware system and update risk models as required,
- validate and update location information of crossings with incomplete or inaccurate data,
- provide additional customizations based on user requests,
- provide routine support for any issues arising with the software/network,



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- provide administrative user support (registration and approval process),
- provide an annual workshop and meet with TC-Rail Safety group to discuss system,
- updates to systems and data as required/requested.

#### Potential Service Disruption

As mentioned, services must be delivered via a secure, web-based portal in which authorized TC employees have access to input data and conduct various searches. In the event that there are any software/system questions that arise, the Contractor must be able to provide IT support in a timely manner.

The Contractors' resource(s) must be available to meet when issues arise, as required. For contractual and/or service matters a senior level resource must attend requested meetings, when required.

Any system or database interruptions and/or failures that would cause access issues to the database and/or would prevent TC's ability to complete queries, must be communicated to TC immediately by email to inform the Project Authority, and provide a timeline of when services are expected to resume. If TC identifies a system, database interruption and/or failure, or any other issue with the service, the Contractor must take action to rectify the situation in a prompt manner, within their capability and without delay.

#### **5. APPLICABILITY OF THE TRADE AGREEMENT(S) TO THE PROCUREMENT**

This procurement is subject to the following trade agreements: ◦

- Canada-Chile Free trade Agreement
- Canadian Free Trade Agreement
- Canada-Columbia Free Trade Agreement
- Canada-Panama Free Trade Agreement
- Canada-Honduras Free Trade Agreement
- Canada-Korea Free Trade Agreement

#### **6. JUSTIFICATION FOR THE PRE-IDENTIFIED SUPPLIER**

GradeX, which is the current software/network platform that Transport Canada is using to fulfill its requirement, was developed in part by the University of Waterloo and by extension, TransOptimum Technology. At the core of Grade X, are statistical models created and developed by the University of Waterloo. To be effective, these statistical models that make up GradeX require maintenance to ensure their reliability and accuracy in accordance with the most recent reports, studies and data. They also require other technical support such as user account maintenance, troubleshooting and the fine-tuning of minor functions.

As the University of Waterloo and TransOptimum own the Intellectual Property for the statistical models used in the GradeX system, they would be the only ones that could easily provide the database services including support and maintenance, in a timely and cost effective manner. Any other proposed system/network would require extensive reworking of existing models and data which



would not be time or cost effective. In order to continue to have the ability to meet its program requirements, alternative systems would not allow for program delivery within the required timeframe.

**7. GOVERNMENT CONTRACTS REGULATIONS EXCEPTION(S)**

Indicate all relevant exceptions under the Government Contracts Regulations (GCRs).

The following exception(s) to the Government Contracts Regulations is (are) invoked for this procurement under subsection: subsection 6(d) - "only one person is capable of performing the work".

**8. OWNERSHIP OF INTELLECTUAL PROPERTY**

Ownership of any Foreground Intellectual Property arising out of the proposed contract will vest in the Contractor. Refer to clause 4006 (2010-08-16) Contractor to Own Intellectual Property Rights in Foreground in accordance with the Policy on Title to Intellectual Property Arising under Crown Procurement Contracts: <https://www.ic.gc.ca/eic/site/068.nsf/eng/00005.html>

**9. PERIOD OF THE PROPOSED CONTRACT OR DELIVERY DATE**

The proposed contract is for a period of twelve (12) months, from [xxxxxx xx], 2020 to xxxxxxxxxxxx, 2021.

The contract includes four (4) one (1) year Option Periods to extend the initial contract period.

**10. COST ESTIMATE OF THE PROPOSED CONTRACT**

The estimated value of the contract is \$20,000.00 fixed first year and carries 4 option periods, each valued at \$20,000.00 (GST/HST extra).

**11. NAME AND ADDRESS OF THE PRE-IDENTIFIED SUPPLIER**

Transoptimum Technology Inc.  
526 Birchleaf Walk  
Waterloo, On, N2t 2w5

**12. SUPPLIERS' RIGHT TO SUBMIT A STATEMENT OF CAPABILITIES**

Suppliers who consider themselves fully qualified and available to provide the services described in the ACAN may submit a statement of capabilities in writing to the contact person identified in this notice on or before the closing date of this notice. The statement of capabilities must clearly demonstrate how the supplier meets the advertised requirements.

**13. CLOSING DATE FOR A SUBMISSION OF A STATEMENT OF CAPABILITIES**

**Commented [PJ1]:** April 1st

**Commented [MJ2R1]:** So we are not bound by fiscal driven dates (April 1<sup>st</sup> for example) and can often end up awarding contracts throughout the year, and the initial period of the contract will be 1 year from the date of award. So if the ACAN is posted for 15 days and there are no challenges, we are looking at an award date in November of this year that will go to November of the following year. The March 31<sup>st</sup> shouldn't have been in there as that was carried over from the last one that was done. When we have the ACAN back from translation I will update all the dates so they make sense. Xxxxxxx for now ;-)

**Commented [PJ3]:** The amount of \$100,000 is for the entire 5 years. I think it should be noted that we have \$20,000 for this year (2020-2021).

**Commented [MJ4R3]:** Updated to reflect initial value plus option periods.



The closing date and time for accepting statements of capabilities is November xx, 2020 at 02:00 p.m. EST.

**14. INQUIRIES AND STATEMENTS OF CAPABILITIES ARE TO BE DIRECTED BY EMAIL TO:**

James Morgan  
Transport Canada  
800 Burrard Street  
Vancouver, BC

Telephone: 604-417-4456

E-mail : [james.morgan@tc.gc.ca](mailto:james.morgan@tc.gc.ca)