

# REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

## Proposal To: Transport Canada

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods and services listed herein and on any attached sheets at the price(s) set out therefore.

## Proposition à : Transports Canada

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens et services énumérés ici et sur toute feuille ci-annexée, au(x) prix indique(s).

## Comments - Commentaires

## RETURN BIDS TO: RETOURNER LES SOUMISSIONS À :

epost Connect

### Solicitation Closes - L'invitation prend fin

At - à :  
2:00 PM - 14:00

On :  
July 5, 2021

Time Zone - Fuseau Horaire :  
EDT

<b>Title</b> Supply Chain Analysis of Class 6.2 Infectious Substances and Dangerous Goods Associated with the Handling and Treatment of COVID-19 in Canada.	
<b>Solicitation No. N° de l'invitation</b> T8080-210060	<b>Date of Solicitation Date de l'invitation</b> May 21, 2021
<b>Address enquiries to:</b> Natasha Blackstein <b>Telephone No.</b> (343) 550-2321 <b>E-Mail Address -</b> <a href="mailto:Natasha.blackstein@tc.gc.ca">Natasha.blackstein@tc.gc.ca</a>	
<b>Destination</b> See herein -	

**Instructions:** Municipal taxes are not applicable. Unless otherwise specified herein all prices quoted must include all applicable Canadian customs duties, GST/HST, excise taxes and are to be delivered Delivery Duty Paid including all delivery charges to destination(s) as indicated. The amount of the Goods and Services Tax/Harmonized Sales Tax is to be shown as a separate item.

**Instructions :** Les taxes municipales ne s'appliquent pas. Sauf indication contraire, les prix indiqués doivent comprendre les droits de douane canadiens, la TPS/TVH et la taxe d'accise. Les biens doivent être livrés « rendu droits acquittés », tous frais de livraison compris, à la ou aux destinations indiquées. Le montant de la taxe sur les produits et services/taxe de vente harmonisée doit être indiqué séparément.

<b>Delivery required</b> See herein - Voir aux présentes OR [Insert date] - [Insérer la date]	<b>Delivery offered</b> Not applicable
<b>Vendor/Firm Name and Address</b> Raison sociale et adresse du fournisseur/de l'entrepreneur	
<b>Person authorized to sign on behalf of Vendor/Firm (type or print):</b> La personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie) :	
<b>Name - Nom</b>	<b>Title - Titre</b>
<b>Signature</b>	<b>Date</b>

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Introduction**

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides Bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided;
- Part 6 Security, Financial and Other Requirements: includes specific requirements that must be addressed by Bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Statement of Work, the Basis of Payment, the Electronic Payment Instruments, the Insurance Requirements.

### **1.2 Summary**

#### **1.2.1 Description**

The Transportation of Dangerous Goods Directorate (TDG), based on risks, develops safety regulations and standards, conducts oversight and provides expert advice on dangerous goods incidents to promote public safety in the transportation of dangerous goods by all modes of transport in Canada.

Class 6.2 Infectious substances are a division of dangerous goods under Class 6 – Toxic and Infectious substances. Infectious substances are defined as substances known or reasonably believed to contain viable micro-organisms such as bacteria, viruses, rickettsia, parasites, fungi and other agents such as prions that are known or reasonably believed to cause disease in humans or animals<sup>1</sup>. Class 6.2 is further divided in Category A and Category B. Category A infectious substances include those which upon exposure could lead to permanent disability or death, while Category B infectious substances are less hazardous. Dangerous goods classified as Class 6.2 Infectious substances can include blood samples, tissue samples, organs, body fluids, or cultures that contain pathogenic microorganisms. Commonly transported Class 6.2 dangerous goods are biological substances, patient specimens, samples of cultures transported for the purposes of research, and medical and clinical wastes.

In 2020, the world changed due to the COVID-19 pandemic. This affected every aspect of our lives, including the way we handle, offer for transport and transport dangerous goods. The coronavirus (SARS-CoV-2) which causes COVID-19 is classified as a Class 6.2 dangerous good. Cultures of COVID-19 are transported as Category A, and patient specimens such as nasal swabs from suspected COVID-19 individuals are transported as Category B. Therefore; it is important that we as the TDG program expand

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<sup>1</sup> <https://laws-lois.justice.gc.ca/eng/regulations/sor-2001-286/page-14.html#h-1228505>

our knowledge base regarding the transportation of Class 6.2 dangerous goods and the other dangerous goods that surround or support these supply chains.

A geographic information systems (GIS) analysis from a safety perspective of Class 6.2 infectious substances and of the dangerous goods associated with the handling and treatment of COVID-19 will provide an overview of the handling, offering for transport, transport and import of these dangerous goods within Canada, their respective modes of transport and routing, as well as identification of facilities involved in these supply chains.

### **1.2.2 epost Connect**

This bid solicitation allows bidders to use the epost Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

### **1.3 Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

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## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003](#) (2020-05-28) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of [2003](#), Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days  
Insert: 120 days

### 2.2 Submission of Bids

Bids must be submitted only to Transport Canada via epost Connect by the date, time and place indicated in the bid solicitation.

[natasha.blackstein@tc.gc.ca](mailto:natasha.blackstein@tc.gc.ca)

**Note:** Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Note: Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

#### 2.2.1 epost Connect

- a. Unless specified otherwise in the bid solicitation, bids must be submitted by using the [epost Connect service](#) provided by Canada Post Corporation.
  - i. The only acceptable email address to use with epost Connect for responses to bid solicitations issued by Transport Canada is: [natasha.blackstein@tc.gc.ca](mailto:natasha.blackstein@tc.gc.ca) , or, if applicable, the email address identified in the bid solicitation.
- b. To submit a bid using epost Connect service, the Bidder must either:
  - i. send directly its bid only to [natasha.blackstein@tc.gc.ca](mailto:natasha.blackstein@tc.gc.ca) , using its own licensing agreement for epost Connect provided by Canada Post Corporation; or
  - ii. send as early as possible, and in any case, at least six business days prior to the solicitation closing date and time, (in order to ensure a response), an email that includes the bid solicitation number to [natasha.blackstein@tc.gc.ca](mailto:natasha.blackstein@tc.gc.ca) requesting to open an epost Connect

conversation. Requests to open an epost Connect conversation received after that time may not be answered.

- c. If the Bidder sends an email requesting epost Connect service to the specified email in the bid solicitation, an officer of Transport Canada will then initiate an epost Connect conversation. The epost Connect conversation will create an email notification from Canada Post Corporation prompting the Bidder to access and action the message within the conversation. The Bidder will then be able to transmit its bid afterward at any time prior to the solicitation closing date and time.
- d. If the Bidder is using its own licensing agreement to send its bid, the Bidder must keep the epost Connect conversation open until at least 30 business days after the solicitation closing date and time.
- e. The bid solicitation number should be identified in the epost Connect message field of all electronic transfers.
- f. It should be noted that the use of epost Connect service requires a Canadian mailing address. Should a bidder not have a Canadian mailing address, they may use the Bid Receiving Unit address specified in the solicitation in order to register for the epost Connect service.
- g. For bids transmitted by epost Connect service, Canada will not be responsible for any failure attributable to the transmission or receipt of the bid including, but not limited to, the following:
  - i. receipt of a garbled, corrupted or incomplete bid;
  - ii. availability or condition of the epost Connect service;
  - iii. incompatibility between the sending and receiving equipment;
  - iv. delay in transmission or receipt of the bid;
  - v. failure of the Bidder to properly identify the bid;
  - vi. illegibility of the bid;
  - vii. security of bid data; or,
  - viii. inability to create an electronic conversation through the epost Connect service.
- h. Transport Canada will send an acknowledgement of the receipt of bid document(s) via the epost Connect conversation, regardless of whether the conversation was initiated by the supplier using its own license or Transport Canada. This acknowledgement will confirm only the receipt of bid document(s) and will not confirm if the attachments may be opened nor if the content is readable.
- i. Bidders must ensure that they are using the correct email address for Transport Canada when initiating a conversation in epost Connect or communicating with Transport Canada and should not rely on the accuracy of copying and pasting the email address into the epost Connect system.
- j. A bid transmitted by epost Connect service constitutes the formal bid of the Bidder and must be submitted in accordance with section 05.

### **2.3 Former Public Servant**

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

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## Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the [Financial Administration Act](#), R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits Act](#), R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the [Canadian Forces Superannuation Act](#), R.S., 1985, c. C-17, the [Defence Services Pension Continuation Act](#), 1970, c. D-3, the [Royal Canadian Mounted Police Pension Continuation Act](#), 1970, c. R-10, and the [Royal Canadian Mounted Police Superannuation Act](#), R.S., 1985, c. R-11, the [Members of Parliament Retiring Allowances Act](#), R.S. 1985, c. M-5, and that portion of pension payable to the [Canada Pension Plan Act](#), R.S., 1985, c. C-8.

## Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes** ( ) **No** ( )

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2019-01](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

## Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes** ( ) **No** ( )

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

#### **2.4 Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than 10 calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

#### **2.5 Applicable Laws**

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

## 2.6 Improvement of Requirement during Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least 10 days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

## 2.7 Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
  - Office of the Procurement Ombudsman (OPO)
  - Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

## **PART 3 - BID PREPARATION INSTRUCTIONS**

### **3.1 Bid Preparation Instructions**

Canada requests that the Bidder submits its bid in accordance with section Part 2 – Bidder Instructions 2.3 epost Connect. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

The bid must be gathered per section and separated as follows:

Section I: Technical Bid (1 soft copy)  
Section II: Financial Bid (1 soft copy)  
Section III: Certifications (1 soft copy)  
Section IV: Additional Information

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

#### **Section I: Technical Bid**

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach) in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

#### **Section II: Financial Bid**

**3.1.1** Bidders must submit their financial bid in accordance with the Basis of Payment in Annex "B".

#### **3.1.2 Electronic Payment of Invoices – Bid**

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex "C" Electronic Payment Instruments, to identify which ones are accepted.

If Annex "C" Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

#### **3.1.3 Exchange Rate Fluctuation**

C3011T (2013-11-06), Exchange Rate Fluctuation

## PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

### 4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.

#### 4.1.1 Technical Evaluation

##### 4.1.1.1 Mandatory Technical Criteria

For any project summaries provided in demonstration of mandatory or rated experience requirements, the resource must provide:

- a) Name of the client(s) / employer(s);
- b) A brief description of the objective and scope of the service provided and the number of participant(s)
- c) The start and end dates (month and year) of the project / work;
- d) The dollar (\$) value of the project;
- e) The total number of years' experience performing each mandatory and technical criteria;
- f) Details about the work performed by the proposed resource including number of working months, tasks, technologies used, and deliverables;
- g) The extent to which the services were provided on-time, on-budget and in accordance with the established project; and,
- h) Client / employer reference that can attest to the proposed resource's experience (References are only contacted to validate the information provided in the bidder's proposal)

\*The month(s) of experience listed for a project or experience whose timeframe overlaps that of another referenced project or experience will only be counted once.

For example: Project 1 timeframe is July 2015 to December 2015; Project 2 timeframe is October 2015 to January 2016; the total months of experience for these two project references is seven (7) months

Proposals must meet the following mandatory requirements:

<b>The Bidder's Proposed Resource</b>			
<b>Criterion</b>	<b>Mandatory Criteria</b>	<b>Met / Not Met</b>	<b>Cross Reference in Proposal</b>
<b>MT-1</b>	<p>The Bidder must submit a detailed Work Plan describing how it will meet the requirements of the Statement of Work (SOW) Annex A. The work plan must include:</p> <ul style="list-style-type: none"> <li>• The Contractor's understanding of the scope of work and requirements needed to complete the study;</li> <li>• A draft Table of Contents for the report which will define how the report is organized;</li> <li>• A draft of methodologies to be used for data collection, data analysis and GIS analysis;</li> </ul>		

	<ul style="list-style-type: none"> <li>• The Contractor demonstrates that they can produce all geospatial deliverables using ESRI ArcGIS suite of products including producing all maps in ESRI ArcGIS map documents (mxd) or ESRI ArcGIS Project Files (aprx).</li> <li>• Description of data and metadata formatting, naming conventions, and any other means to which the Contractor will organize the data;</li> <li>• A paragraph by paragraph statement of compliance with the Statement of Work (SOW);</li> <li>• The schedule of work and timeline for project deliverables (GANTT chart or similar) showing activities and milestones;</li> <li>• A draft reference list, including preliminary sources for data, internal data sources TDG must provide, as well as external datasets that TDG may assist in acquiring.</li> </ul>		
<b>MT-2</b>	<p>The Bidder must propose a Project Team consisting of at least a Project Manager, a GIS Specialist, Dangerous Goods Specialist and a Health Industry Specialist.</p> <ul style="list-style-type: none"> <li>• The bidder must provide details on the Project Team proposed to carry out the study, complete with language capabilities (in the official languages of Canada), resumes and project descriptions for each team member.</li> </ul> <p>Note: The Bidder may use the same person to fill more than one position in the Project Team.</p>		
<b>MT-3</b>	<p>The Bidder must demonstrate using project descriptions (minimum 2) that the proposed resource as the Project Manager :</p> <ul style="list-style-type: none"> <li>• Has a minimum of two (2) years cumulative experience (within the period from March 31, 2011 to April 1, 2021)* in the transportation industry and/or for the transportation of dangerous goods.</li> </ul> <p>*A resume for the Project Manager must be included as part of Bidder's Proposal.</p>		
<b>MT-4</b>	<p>The Bidder must demonstrate using project descriptions that the proposed resource as the GIS Specialist has at a minimum:</p> <ul style="list-style-type: none"> <li>• A degree, diploma or certificate*, from a recognized university or college in geography or Geographic Information Systems;</li> <li>• Two (2) years' experience, (within the period from March 31, 2011 to April 1, 2021), working in the field of geography or GIS; and,</li> </ul>		

	<ul style="list-style-type: none"> <li>Two (2) years' experience, (within the period from March 31, 2011 to April 1, 2021), working with ESRI ArcGIS suite of products.</li> </ul> <p>*A copy of the degree, diploma or certificate must be included in the bidder's proposal.</p>		
<b>MT-5</b>	<p>The Bidder must demonstrate using project descriptions that the proposed resource as the Dangerous Goods Specialist has at minimum:</p> <ul style="list-style-type: none"> <li>A degree* from a recognized university in a related field (i.e. Chemistry, Chemical Engineering).</li> <li>Two (2) years' experience, (within the period from March 31, 2010 to April 1, 2020) working in the field of dangerous goods (handling, offering for transport, transport and import)</li> </ul> <p>*A copy of the degree must be included in the bidder's proposal.</p>		
<b>MT-6</b>	<p>The Bidder must demonstrate using project descriptions that the proposed resource as the Health Industry Specialist has at minimum:</p> <ul style="list-style-type: none"> <li>A degree* from a recognized university in science with a specialization in health sciences, health administration, public health, biology or related fields; and,</li> <li>Two (2) years' experience, (within the period from March 31, 2010 to April 1, 2020)* working in the field of health.</li> </ul> <p>*A copy of the degree must be included in the bidder's proposal.</p>		

#### 4.1.1.2 Point Rated Technical Criteria

Bids which meet all the mandatory technical criteria will be evaluated and scored as specified below.

<b>Point Rated Technical Criteria</b>		<b>Maximum points available</b>	<b>Cross Reference in Proposal</b>
<b>RT1</b>	<p>The proposal demonstrates an understanding of the following aspects:</p> <p>Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens):</p> <p>1.1 The supply chain of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those</p>	60	

	<p>transported as exempt human or animal specimens) in Canada;</p> <p>1.2 Identification and analysis of the quantities of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens):being moved in Canada;</p> <p>1.3 Identification of the sites Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens):are generated, and disposed of in Canada;</p> <p>1.4 Identification of the sites that handle, offer for transport, transport and import Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens)in Canada;</p> <p>1.5 Descriptions of the transportation routes of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens)in Canada;</p> <p>1.6 Identification of carriers that transport Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);</p> <p>1.7 Identification of how the exemption for human or animal specimens are being applied to transport Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens). For example, what are the percentage of samples transported under the exemption compared to infected patient samples; and,</p> <p>1.8 Identification, at the company level, the type of training given to employees who handle, offer for transport, transport or import Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens).</p> <p>Dangerous goods associated with the handling and treatment of COVID-19:</p> <p>1.9 The supply chain of dangerous goods associated with the handling and treatment of COVID-19 in Canada;</p> <p>1.10 Identification and analysis of the quantities of dangerous goods associated with the handling</p>		
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	<p>and treatment of COVID-19 including their by-products and wastes in Canada;</p> <p>1.11 Identification of sites that handle, offer for transport, transport and import dangerous goods associated with the handling and treatment of COVID-19 including their by-products and wastes in Canada; and,</p> <p>1.12 Descriptions of the transportation routes of dangerous goods associated with the handling and treatment of COVID-19 in Canada.</p> <p><i>Each sub-criterion is assessed and worth 5 points. For each sub-criterion that is addressed, full marks for that sub-criterion will be awarded. For each sub-criterion not addressed, 0 points will be awarded.</i></p>		
<b>RT2</b>	<p>The Work Plan submitted in MT1 addresses Quality Control as well as processes to ensure that the work can be delivered successfully, including:</p> <p>2.1 A plan describing quality assurance processes;</p> <p>2.2 A description of quality assurance processes; and,</p> <p>2.3 A timetable of milestones;</p> <p><i>Each sub-criterion is assessed and worth 5 points. For each sub-criterion that is addressed, full marks for that sub-criterion will be awarded. For each sub-criterion not addressed, 0 points will be awarded.</i></p>	15	
<b>RT3</b>	<p>The Bidder should demonstrate using project descriptions that the proposed Project Manager has experience in the following elements:</p> <p>General experience:</p> <p>3.1 Analyzing transportation data.</p> <p>Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens):</p> <p>3.2 Properties of dangerous goods and / or specifically Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);</p> <p>3.3 Handling, offering for transport, transport and import of dangerous goods and / or specifically Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens); and,</p>	35	

	<p>3.4 Roles and responsibilities of the various parties involved in the supply chain of dangerous goods and / or specifically Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens).</p> <p>Dangerous goods associated with the handling and treatment of COVID-19:</p> <p>3.5 Properties of dangerous goods and / or specifically the dangerous goods associated with the handling and treatment of COVID-19;</p> <p>3.6 Handling, offering for transport, transport and import of dangerous goods and / or specifically dangerous goods associated with the handling and treatment of COVID-19; and,</p> <p>3.7 Roles and responsibilities of the various parties involved in the supply chain of dangerous goods and / or specifically dangerous goods associated with the handling and treatment of COVID-19.</p> <p><i>Each sub-criterion is assessed and worth 5 points. For each sub-criterion that is addressed, full marks for that sub-criterion will be awarded. For each sub-criterion not addressed, 0 points will be awarded.</i></p>		
<p><b>RT4</b></p>	<p>The Bidder should demonstrate using Project Descriptions that the proposed GIS Specialist has experience in the following GIS skills:</p> <p>4.1 Transportation route analysis;</p> <p>4.2 GIS experience using ESRI ArcGIS Suite of products;</p> <p>4.3 Spatial / statistical analysis; and,</p> <p>4.4 Programing or scripting in a GIS environment.</p> <p><i>Each sub-criterion is assessed and worth 5 points. For each sub-criterion that is addressed, full marks for that sub-criterion will be awarded. For each sub-criterion not addressed, 0 points will be awarded.</i></p>	<p>20</p>	
<p><b>RT5</b></p>	<p>The Bidder should demonstrate using Project Descriptions that the proposed Dangerous Goods Specialist has experience in the following elements related to:</p> <p>Dangerous goods associated with the handling and treatment of COVID-19:</p> <p>5.1 Properties of dangerous goods associated with the handling and treatment of COVID-19;</p>	<p>15</p>	

	<p>5.2 Handling, offering for transport, transport and import of dangerous goods associated with the handling and treatment of COVID-19; and,</p> <p>5.3 Risks associated with handling the dangerous goods associated with the handling and treatment of COVID-19.</p> <p><i>Each sub-criterion is assessed and worth 5 points. For each sub-criterion that is addressed, full marks for that sub-criterion will be awarded. For each sub-criterion not addressed, 0 points will be awarded.</i></p>		
<b>RT6</b>	<p>The Bidder should demonstrate using Project Descriptions that the proposed Health Industry Specialist has experience in the following elements related to:</p> <p>Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens):</p> <p>6.1 Properties of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens); and,</p> <p>6.2 Logistics surrounding the transportation and disposal of infectious and clinical wastes.</p> <p>Dangerous goods associated with the handling and treatment of COVID-19:</p> <p>6.3 Treatments and medical equipment used to combat respiratory diseases like COVID-19.</p> <p><i>Each sub-criterion is assessed and worth 5 points. For each sub-criterion that is addressed, full marks for that sub-criterion will be awarded. For each sub-criterion not addressed, 0 points will be awarded.</i></p>	15	
<b>Total (maximum points)</b>		<b>160</b>	

## 4.2 Basis of Selection

### 4.2.1 Highest Combined Rating of Technical Merit and Price

1. To be declared responsive, a bid must:
  - a. comply with all the requirements of the bid solicitation; and
  - b. meet all mandatory criteria;
2. Bids not meeting (choose "(a) or (b) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70% for the technical merit and 30% for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 70 %.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 60/40 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000 (45).

#### Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)

		Bidder 1	Bidder 2	Bidder 3
Overall Technical Score		115/135	89/135	92/135
Bid Evaluated Price		\$55,000.00	\$50,000.00	\$45,000.00
Calculations	Technical Merit Score	$115/135 \times 60 = 51.11$	$89/135 \times 60 = 39.56$	$92/135 \times 60 = 40.89$
	Pricing Score	$45/55 \times 40 = 32.73$	$45/50 \times 40 = 36.00$	$45/45 \times 40 = 40.00$
Combined Rating		83.84	78.56	80.89
Overall Rating		1st	3rd	2nd

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## **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

### **5.1 Certifications Required with the Bid**

Bidders must submit the following duly completed certifications as part of their bid.

#### **5.1.1 Integrity Provisions - Declaration of Convicted Offences**

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the Integrity declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

### **5.2 Certifications Precedent to Contract Award and Additional Information**

The certifications and additional information listed below should be submitted with the bid but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame specified will render the bid non-responsive.

#### **5.2.1 Integrity Provisions – Required Documentation**

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

#### **5.2.2 Federal Contractors Program for Employment Equity - Bid Certification**

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid list at the time of contract award.

### **5.2.3 Additional Certifications Precedent to Contract Award**

#### **5.2.3.1 Status and Availability of Resources**

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

#### **5.2.3.2 Education and Experience**

The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.

## **PART 6 - RESULTING CONTRACT CLAUSES**

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

### **6.1 Statement of Work**

The Contractor must perform the Work in accordance with the annex titled "Statement of Work".

### **6.2 Standard Clauses and Conditions**

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

#### **6.2.1 General Conditions**

[2035](#) (2020-05-28), General Conditions - Higher Complexity - Services, apply to and form part of the Contract.

### **6.3 Security Requirements**

**6.3.1** There is no security requirement applicable to the Contract.

### **6.4 Term of Contract**

#### **6.4.1 Period of the Contract**

The period of the Contract is from date of Contract to March 31, 2022, inclusive.

### **6.5 Authorities**

#### **6.5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Name: Natasha Blackstein  
Title: Procurement Specialist  
Transport Canada  
Address: 275 Slater Street  
Floor 1  
Ottawa, Ontario K1A 0N5  
Telephone: 343-550-2321  
E-mail address: [Natasha.blackstein@tc.gc.ca](mailto:Natasha.blackstein@tc.gc.ca)

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### 6.5.2 Project Authority

The Project Authority for the Contract is: *(to be provided upon contract award)*

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_ - \_\_\_\_ - \_\_\_\_\_  
E-mail address: \_\_\_\_\_

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority; however, the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

### 6.5.3 Contractor's Representative

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_ - \_\_\_\_ - \_\_\_\_\_  
  
E-mail address: \_\_\_\_\_

### 6.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a [Public Service Superannuation Act](http://laws-lois.justice.gc.ca/eng/acts/P-36/FullText.html) (<http://laws-lois.justice.gc.ca/eng/acts/P-36/FullText.html>) (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2019-01](https://www.canada.ca/en/treasury-board-secretariat/services/policy-notice/changes-contracting-limits-approval-new-requirements.html) (<https://www.canada.ca/en/treasury-board-secretariat/services/policy-notice/changes-contracting-limits-approval-new-requirements.html>) of the Treasury Board Secretariat of Canada.

### 6.7 Payment

#### 6.7.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price for a cost of \$ \_\_\_\_\_. Customs duties are included and Applicable Taxes are extra.

#### 6.7.2 Limitation of Price

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### **6.7.3 Method of Payment (Schedule of Milestone)**

For the Work described in the Statement of Work in Annex A, Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract.

### **6.7.4 Electronic Payment of Invoices – Contract**

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)

### **6.8 Invoicing Instructions**

1. The Contractor must submit invoices in accordance with the section titled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Each invoice must be supported by:

- a. description of the Work delivered
2. Invoices must be distributed as follows:
    - a. The original must be forwarded to the address shown on page 1 of the Contract for certification and payment;

### **6.9 Certifications and Additional Information**

#### **6.9.1 Compliance**

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

### **6.10 Applicable Laws**

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

### **6.11 Priority of Documents**

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (c) the general conditions [2035](#) (2020-05-28), General Conditions - Higher Complexity - Services;
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) the Contractor's bid dated .

### **6.12 Insurance**

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

### **6.13 Handling of Personal Information**

The Contractor acknowledges that Canada is bound by the [Privacy Act](#), R.S., 1985, c. P-21, with respect to the protection of personal information as defined in the Act. The Contractor must keep private and confidential any such personal information collected, created or handled by the Contractor under the Contract, and must not use, copy, disclose, dispose of or destroy such personal information except in accordance with this clause and the delivery provisions of the Contract.

All such personal information is the property of Canada, and the Contractor has no right in or to that information. The Contractor must deliver to Canada all such personal information in whatever form, including all working papers, notes, memoranda, reports, data in machine-readable format or otherwise, and documentation which have been made or obtained in relation to the Contract, upon the completion or termination of the Contract, or at such earlier time as Canada may request. Upon delivery of the personal information to Canada, the Contractor will have no right to retain that information in any form and must ensure that no record of the personal information remains in the Contractor's possession.

### **6.14 Dispute Resolution**

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

## **ANNEX “A”**

### **STATEMENT OF WORK**

#### **1.0 TITLE**

Supply Chain Analysis of Class 6.2 Infectious Substances and Dangerous Goods Associated with the Handling and Treatment of COVID-19 in Canada.

#### **2.0 BACKGROUND**

The Transportation of Dangerous Goods Directorate (TDG), based on risks, develops safety regulations and standards, conducts oversight and provides expert advice on dangerous goods incidents to promote public safety in the transportation of dangerous goods by all modes of transport in Canada.

Class 6.2 Infectious substances are a division of dangerous goods under Class 6 – Toxic and Infectious substances. Infectious substances are defined as substances known or reasonably believed to contain viable micro-organisms such as bacteria, viruses, rickettsia, parasites, fungi and other agents such as prions that are known or reasonably believed to cause disease in humans or animals<sup>2</sup>. Class 6.2 is further divided in Category A and Category B. Category A infectious substances include those which upon exposure could lead to permanent disability or death, while Category B infectious substances are less hazardous. Dangerous goods classified as Class 6.2 Infectious substances can include blood samples, tissue samples, organs, body fluids, or cultures that contain pathogenic microorganisms. Commonly transported Class 6.2 dangerous goods are biological substances, patient specimens, samples of cultures transported for the purposes of research, and medical and clinical wastes.

In 2020, the world changed due to the COVID-19 pandemic. This affected every aspect of our lives, including the way we handle, offer for transport and transport dangerous goods. The coronavirus (SARS-CoV-2) which causes COVID-19 is classified as a Class 6.2 dangerous good. Cultures of COVID-19 are transported as Category A, and patient specimens such as nasal swabs from suspected COVID-19 individuals are transported as Category B. Therefore; it is important that we as the TDG program expand our knowledge base regarding the transportation of Class 6.2 dangerous goods and the other dangerous goods that surround or support these supply chains.

A geographic information systems (GIS) analysis from a safety perspective of Class 6.2 infectious substances and of the dangerous goods associated with the handling and treatment of COVID-19 will provide an overview of the handling, offering for transport, transport and import of these dangerous goods within Canada, their respective modes of transport and routing, as well as identification of facilities involved in these supply chains.

#### **3.0 OBJECTIVE**

The objective of this GIS study is in two parts. Part 1 is to comprehensively describe the supply chains for dangerous goods classified as Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens). The study will also identify all dangerous goods and means of containment that are used to support these supply chains, for the purposes of contributing to informed policy decisions regarding safety regulations. Further, Part 1 will also identify the extent of training associated with the handling of Class 6.2 infectious

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<sup>2</sup> <https://laws-lois.justice.gc.ca/eng/regulations/sor-2001-286/page-14.html#h-1228505>

substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens).

Part 2 of the study will identify the dangerous goods and means of containment that are used in the supply chains associated with the handling and treatment of COVID-19 (as described in Section 4.0 Scope of Work).

#### 4.0 SCOPE OF WORK

The scope of this GIS study includes the two parts described in the objectives.

- Part 1 will analyze the supply chain of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) transported in Canada by all modes in 2019 through 2020 to understand supply chains both pre-COVID-19 pandemic and into 2020.
- Part 2 will analyze the supply chains associated with the handling and treatment of COVID-19 in Canada by all modes in the year 2020.

In Part 1, the Contractor will identify and describe the supply chains of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) in Canada. These dangerous goods are typically biological substances, patient specimens, and medical or clinical wastes, which are associated with the health industry (i.e. viruses, bacteria, used medical equipment etc.) and the agriculture and agri-food industries (i.e. infectious animal products, animal waste samples, etc.). The Contractor will identify the locations where Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) are generated, handled and disposed of, along with the locations of transportation, distribution and handling sites.

Of the companies who are involved in the supply chain of Class 6.2 infectious substances, the Contractor will identify at the company level the type of training given to employees who handle, offer for transport, transport and import Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) and if the training is mandatory.

The Contractor will also map out and identify the modes and the routes used to transport these dangerous goods. Additionally, the Contractor will identify the dangerous goods used to support these supply chains. An example of a supporting dangerous good in this case would be the dry ice or propane to power the refrigeration equipment used to cool medical samples during transport; however, the gasoline used in the vehicle transporting the samples would not fall within scope.

The Class 6.2 infectious substances UN numbers that will be under analysis in this study can be found in the table below. Exempt human and animal specimens will also be included in the study.

**Table 1 – Class 6.2 Infectious Substance UN Numbers and Descriptions**

Primary Class	UN Number Canada	Shipping Name Canada
6.2	UN2814	Infectious substance, affecting humans
6.2	UN2900	Infectious substance, affecting animals only
6.2	UN3291	Clinical waste, unspecified, N.O.S; (bio) medical waste, N.O.S; or regulated medical waste, N.O.S
6.2	UN3373	Biological substance, Category B

It should be noted that the data available from Transport Canada for Class 6.2 dangerous goods is limited. Transport Canada has some datasets identifying the entities involved in these supply chains

which will be made available; however, the Contractor will need to conduct interviews, surveys and qualitative research in order to meet the requirements outlined in the scope.

For Part 2 of this study, the Contractor will identify the supply chains and dangerous goods associated with the handling and treatment of COVID-19 (COVID-19 supply chains). The COVID-19 supply chains to be analyzed in this study will include, but are not limited to dangerous goods associated with:

- Research laboratories working with the parental virus, variants of concern, and/or SARS-CoV-2 ssRNA;
- The transportation of coronavirus patient specimens;
- The transportation of COVID-19 vaccines;
- Medical equipment used to treat patients with COVID-19 (i.e. oxygen tanks, X-RAY equipment etc.)
- Sanitation products (i.e. rubbing alcohol, sanitizers etc.)

For each COVID-19 supply chain analyzed, the Contractor will identify the locations of transportation, distribution and handling sites, as well as the modes and routes used to transport the dangerous goods. Also, the Contractor will identify the dangerous goods by-products (including waste) of these dangerous goods. Finally, the Contractor will identify and map the transportation of the dangerous goods throughout the COVID-19 supply chains.

## **5.0 TASK / REQUIREMENTS**

The Contractor must fulfill the following tasks to satisfy the requirements of the study:

For Part 1 – Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens):

- 1) Comprehensively describe the supply chain Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) in Canada.
- 2) Analyze the supply chain, including quantities being moved across Canada, of:
  - i. Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens)
  - ii. Dangerous goods used to support the supply chain of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens)
- 3) Identify sites that generate, and dispose of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens)
- 4) Identify the sites that handle, offer for transport, transport and import Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);
- 5) Identify the transportation routes, by mode and paired origin-destination, of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);

- 6) Identify the carriers that transport Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);
- 7) Identify how the exemption for human or animal specimens are being applied to transport Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens). For example, what are the percentage of samples transported under the exemption compared to infected patient samples; and,
- 8) Identify, at the company level, the type of training given to employees who handle, offer for transport, transport or import Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) and if the training is mandatory.

For Part 2 – COVID-19 supply chains:

- 1) Comprehensively describe the COVID-19 supply chains in Canada.
- 2) Analyze the supply chains, including quantities being moved across Canada, of:
  - i. Dangerous good associated with the handling and treatment of COVID-19; and,
  - ii. Dangerous goods produced as by-products and wastes for each dangerous good associated with the handling and treatment of COVID-19.
- 3) Identify the sites which handle, offer for transport, transport and import the dangerous goods associated with the handling and treatment of COVID-19 in Canada by location and by UN number and their by-products and wastes;
- 4) Identify the transportation routes by mode and paired origin-destinations of the dangerous goods associated with the handling and treatment of COVID-19 and their by-products and wastes.

## **6.0 DELIVERABLES AND REPORTING**

### **6.1 Kick-off meeting:**

A kick-off meeting will be held between the Contractor and the TC project authority. This meeting is intended to review the draft work plan submitted as part of the Contractor's proposal and finalize the requirements for the study, including:

- a) The Contractor's understanding of the scope of work and requirements needed to complete the study.
- b) A draft Table of Contents for the report which will define how the report is organized;
- c) A draft of methodologies to be used for data collection, data analysis and GIS analysis;

- d) The Contractor demonstrates that they can produce all geospatial deliverables using ESRI ArcGIS suite of products including producing all maps in ESRI ArcGIS map documents (mxd) or ESRI ArcGIS Project Files (aprx).
- e) Description of data and metadata formatting, naming conventions, and any other means to which the Contractor will organize the data;
- f) The schedule of work and timeline for project deliverables (GANTT chart or similar) showing activities and milestones; and,
- g) A draft reference list, including preliminary sources for data, internal data sources TDG must provide, as well as external datasets that TDG may assist in acquiring.

If internal TC data is required, the Contractor must provide, at the kick-off meeting, details of the data, including name of datasets, fields of interest and time period.

If TC is required to acquire external data on behalf of the Contractor, the Contractor must provide, at the kick-off meeting, names and contact information, dataset names, fields of interest and time periods for data extract.

Meeting will be held: Within one (1) week after date of Contract award.

#### 6.2 Final work plan:

The final work plan will be based on the draft submitted with the Contractor's proposal. Edits and changes will be incorporated from discussions held during the kick-off meeting and other consultations with the client. The final work plan must specify:

- a) The specific activities anticipated;
- b) Timelines, milestones and deliverables;
- c) The level of effort and resource for each activity; and
- d) A project plan using a Gantt chart or equivalent format.

Once accepted, the contracted work shall begin. All tasks shall be completed within the timeframe specified. The Contractor shall seek approval from the TC Project Authority with regard to all updates or revisions to the project plan or schedule throughout the life cycle of the project.

Completion Date: Final work plan to be submitted within one (1) week after the kick-off meeting.

#### 6.3 Bi-weekly meeting:

The Contractor must provide bi-weekly (every two weeks) written updates, in English, which will include a status update and/or progress report for the duration of that period. This frequency may be changed if deemed necessary and approved by TC.

Completion Date: 11:00 a.m. EST on the second Monday of each two-week period following the date of Contract award or any other completion date to be agreed to between the Contractor and TC Project Authority.

#### 6.4 Mid-Project Report & sample of GIS work:

The Contractor must provide TC with a mid-project report. The mid-project report must include:

- a) A detailed description of the work completed, status of work underway and description of work remaining;
- b) An explanation of the results to date;
- c) Contacts and references as applicable for sources of data;
- d) Data samples, and GIS products produced using the ESRI ArcGIS suite of products. All sample maps must be delivered with an accompanying ESRI ArcGIS map documents (.mxd), or ESRI ArcGIS Project File (.aprj) file; and,
- e) Data limitations

The Contractor must implement TC's questions and comments in subsequent work.

Completion Date: Mid-Project report and samples of GIS work must be completed by 11:00 a.m. EST on the Friday of the twelfth (12<sup>th</sup>) week following the kick-off meeting, or any other completion date to be agreed to between the Contractor and TC Project Authority.

#### 6.5 Draft Report

The Contractor must provide TC with a draft final report in English. The reports will document the research, analysis and final conclusions of the study, and must include:

- a) Title page;
- b) Executive summary of report;
  - Summary by UN number of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) and the modes of transport, volumes, geospatial patterns, market, trade and safety issues associated with each, as well as data limitations
- c) Table of contents;
- d) Glossary, List of Tables and List of Figures;
- e) Introduction;
  - Overview of the study
  - Background and the objective of the study
- f) Detailed Results and Analysis;

- For Part 1- Supply Chain Analysis Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens):
  - Comprehensively describe the supply chain Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) in Canada.
  - Analyze the supply chain, including quantities being moved across Canada, of
    - Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens); and,
    - Dangerous goods used to support the supply chain of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);
  - Identify sites that generate, and dispose of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);
  - Identify sites that handle, offer for transport, transport and import Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);
  - Identify the transportation routes, by mode and paired origin-destination, of Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);
  - Identify the carriers that transport Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens);
  - Identify how the exemption for human or animal specimens are being applied to transport Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens). For example, what are the percentage of samples transported under the exemption compared to infected patient samples; and
  - Identify at the company level, the type of training given to employees who handle, offer for transport, transport or import Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) and if the training is mandatory.
  
- For Part 2 – Supply Chain Analysis of Dangerous good associated with the handling and treatment of COVID-19:
  - Comprehensively describe the COVID-19 supply chains in Canada;
  - Analyze the supply chains, including quantities being moved across Canada, of:
    - Dangerous goods associated with the handling and treatment of COVID-19; and,
    - Dangerous goods produced as by-products and wastes for each dangerous good associated with the handling and treatment of COVID-19.
  - Identify the sites which handle, offer for transport, transport and import the dangerous goods associated with the handling and treatment of

- COVID-19 in Canada by location and by UN number and their by-products and wastes;
  - Identify the transportation routes by mode and paired origin-destinations of the dangerous goods associated with the handling and treatment of COVID-19 and their by-products and wastes.
- g) Conclusions, Next Steps, and Data Limitations:
- Overall conclusions and recommendations on next steps;
  - Limitations of study, data gaps and areas for further research;
  - Identification of possible resources and/or options for narrowing knowledge gaps.
- h) Technical memorandum;
- Description of all geospatial work and modelling, including a discussion where applicable about the models chosen and why
  - Glossary of terms and data dictionary
- i) References; and
- Sources of data
  - List of companies and stakeholders that are identified in the course of the study, with address and geographic coordinates
- j) Data Annexes, including but not limited to GIS maps and data tables for transportation modes, routes, and volumes for each DG or DG groupings (all including complete metadata), as well as any additional data tables graphics or information relevant to the study.

The Draft Report will be created using a word-processing program agreed to by TC and the Contractor at the start of the project, such as Microsoft Word (Office 2007 or more recent versions) and Adobe Acrobat (most recent version).

Completion Date: 9:00 am EST fifteen (15) days prior to the contract end date or any other completion date to be agreed to between the Contractor and TC Project Authority.

#### 6.6 Electronic Data - Draft tabular data and GIS data

- a) The Contractor must provide TC with a draft of the final tabular data. The draft spreadsheets must be created using Microsoft Excel (2013 or more recent versions). The data deliverable must include the following for dangerous goods transported within Canada and within the study period:
- i. Each dangerous good identified within the scope of the study with attributes including (but not limited to):
- Unique identifier for each record
  - Names, class, and UN number of the dangerous good;
  - Volumetric data of each dangerous good;
  - Mode of transport used for distribution;
  - Type of route used for transportation including seasonal nature;
  - Latitude and Longitude coordinates of paired origin/destination locations; and
  - Province names of paired origin/destination locations.
- b) The Contractor must also provide TC with draft GIS data and draft map products accompanied by complete data dictionaries, application and usage documentation, and metadata. Mapping must be produced using ESRI ArcGIS suite of products. The

record layout of geospatial data must meet the requirements as agreed to in the kick-off meeting. GIS data deliverables must include:

- i. A Point location feature class or shapefile of the sites which handle, offer for transport, transport and import Class 6.2 infectious substances including medical and clinical waste, and patient specimens (including those transported as exempt human or animal specimens) and the dangerous goods associated with the handling and treatment of COVID-19 in Canada with attributes including (but not limited to):
  - Unique identifier for each record;
  - Address information of the site (street number, street name, province, postal code, and country in separate columns);
  - Name of site of facility;
  - Type of facility (i.e. Distribution/Transportation and Handling Sites);
  - Coordinates (Latitude and longitude in separate columns);
  - Name, class and UN numbers of dangerous goods produced at the site within study period;
  - Names, class and UN numbers of dangerous goods by-products and dangerous goods waste produced at the site
  - Volumetric data of dangerous goods handled within the study period. (estimates of volumes are acceptable when actual volumetric data is unavailable)
- ii. Line feature classes or shapefiles of transportation infrastructure within Canada with attributes including (but not limited to):
  - Unique identifier for each record;
  - Name / owner;
  - Province origin, province destination;
  - Mode / type of transportation infrastructure (road, ice road, ferry line, marine shipping route, railway, etc.); and
  - Total length.
- iii. Line feature classes or shapefiles showing the commodity flow by each mode for each dangerous good of interest with attributes including (but not limited to):
  - Aggregated volume of the dangerous good that traverses over each segment of the network
  - Unique identifier;
  - UN number, Primary Class, and subsidiary class(es) if applicable;
  - Volume and weight data of each DG;
  - Paired origin/destination locations;
  - Data dictionary or use documentation; and
  - Complete metadata.
- iv. A map product (i.e. ArcGIS map document 'mxd' or ESRI ArcGIS project file (.aprj) file) of all the commodity flows for each dangerous good of interest, symbolized to show the aggregated volumes of dangerous goods that traverses over each segment of the network, including the following map elements:
  - Title clearly conveying the data being mapped
  - Scale bar
  - Legend that is legible and clearly reflects the presented data
  - Date (month and year) when map was produced
  - Source(s) of the data being mapped

Mapping **must** be conducted on, and produced with ESRI ArcGIS suite of products (i.e. all maps must have an accompanying ESRI ArcGIS map document (.mxd) or ESRI ArcGIS Project File (.apr)). The record layout of geospatial data must meet the requirements as discussed during the kick-off meeting.

The Draft Report and GIS Data will be reviewed by TC, with all questions and comments recorded on a disposition of comments document provided by the Contractor. The Contractor shall answer and implement TC's questions and comments when preparing the final report.

Complete Date: 9:00 a.m. EST fifteen (15) days prior to the contract end date or any other completion date to be agreed to between the Contractor and TC Project Authority.

## **7.0 FINAL REPORT AND FINAL TABULAR AND GIS DATA**

The Contractor must provide TC with four (4) copies of the final project report:

- One (1) copy in English for internal dissemination;
- One (1) copy in French for internal dissemination;
- One (1) copy in English for public dissemination, and
- One (1) copy in French for public dissemination.

The final report for internal dissemination will consist of the same deliverables outlined in Section 6.5 as in the Draft Report but with the implementation of all comments and feedback provided by TC during draft consultations.

The final report for public dissemination will be the same as the final report for internal use, but with the removal, reformatting and aggregation of data so that commercial sensitivity is protected.

The Contractor must also provide TC with the final tabular data and GIS data, in an electronic format as specified in Section 6.6.

All map products including base maps must be provided in both English and French in separate PDF packages (i.e. all maps in English in one PDF package and all maps in French in another PDF package).

Completion Date: On or before 12:00 pm EST on the contract end date.

## **8.0 PRESENTATION**

The contractor shall provide and deliver a presentation in English to TC. The presentation will be presented via webinar based on the Final Report. The Contractor must provide TC with two (2) versions of the presentation:

- One (1) for internal dissemination, and
- One (1) for public dissemination.

The final presentation for public dissemination will be the same as the final presentation for internal use, but with the removal, reformatting and aggregation of data so that commercial sensitivity is protected. The presentation will be given in Microsoft PowerPoint format. In addition, the contractor shall include a recording made during the presentation, as well as permission to use the material in whole or in part.

Completion Date: On or before 12:00 pm EST on the contract end date.

## **9.0 LANGUAGE REQUIREMENTS**

The principal language of communication with Transport Canada will be English. Draft reports will be in English. Final presentations and final results (i.e. project reports) must be both English and French as described in Section 7.0.

## **10.0 DATA / REFERENCES / MATERIAL**

### ***Data***

The Contractor will be responsible for purchasing data outside of what resources Transport Canada (TC) currently has. Before receiving data from TC, the Contractor must conclude a non-disclosure agreement with TC on the handling, use and final disposition of the data. No sensitive information will be accessed by the Contractor and; therefore, no security clearance is required.

The Contractor is responsible for assembling all scientific, economic, transportation and any other data necessary to complete the study. TC will make available, subject to agreed limitations, the transportation statistics and geospatial data that it holds, providing the data in formats and aggregations that will be agreed upon at the kick-off meeting.

### ***Documentation***

The Contractor will document and provide metadata for all sources of data and information used during this contract.

## **11.0 WORK LOCATION**

The work will be completed at the Contractor's site; however, the Contractor's primary contact will be required to participate in bi-weekly teleconference meetings with the TC Project Authority and a webinar presentation.

## **12.0 RESPONSIBILITIES OF THE PROJECT AUTHORITY**

The TC Project Authority is responsible for the following:

- 12.1 Monitor contract progress and provide feedback to the contractor as required within two weeks; and
- 12.2 Make available all required data using formats and aggregations that will be agreed upon in the kick-off meeting after the nondisclosure agreements have been signed.

## **13.0 RESPONSIBILITIES OF THE CONTRACTOR**

The Contractor will maintain responsibility for the following:

Ensure the availability of adequate resources to complete the contract on schedule, and the availability of back-up resources in case of unforeseen illness, injury or other reasons that may result in the withdrawal of the planned resources, as per section 17; and

Ensure that the interests of all stakeholders (e.g. industry, TC, Statistics Canada, etc.) are fully protected in accordance with the non-disclosure agreement.

**ANNEX "B"**

**BASIS OF PAYMENT**

In consideration of the Contractor satisfactorily completing all of its obligations under the terms and conditions of this Contract, the Contractor will be paid an all-inclusive fixed price:

All prices and costs must be submitted in Canadian Dollars, Canadian customs duties and excise taxes included, Applicable Taxes excluded.

Period of the Contract: Award to 31 March, 2022

<b>Milestone No.</b>	<b>Description or "Deliverable"</b>	<b>Firm Amount (CAD)</b>	<b>Delivery Date</b>
1	Delivery of Final Work Plan	\$ _____ (10% of contract value)	Within 2 week of kick-off meeting
2	Delivery of Mid-Project Report	\$ _____ (20% contract value)	Delivery of Mid-Project Report
3	Deliver of Draft Final Report	\$ _____ (60% of contract value)	Deliver of Draft Final Report
4	Delivery of final report and presentation	\$ _____ (10% of contract value)	Contract end date
Total Cost for Evaluation Purposes (Sum of Milestone 1 to Milestone 4 (with no Taxes))		\$ _____	
Applicable Taxes (insert the amount, as applicable)		\$ _____	
Total Cost (taxes included)		\$ _____	

**ANNEX “C” to PART 3 OF THE BID SOLICITATION**

**ELECTRONIC PAYMENT INSTRUMENTS**

The Bidder accepts to be paid by any of the following Electronic Payment Instrument(s):

- VISA Acquisition Card;
- MasterCard Acquisition Card;
- Direct Deposit (Domestic and International);
- Electronic Data Interchange (EDI);
- Wire Transfer (International Only);
- Large Value Transfer System (LVTS) (Over \$25M)