Public Works and Government Services Canada | Travaux publics et Services gouvernementaux Canada

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

Bid Receiving - PWGSC / Réception des soumissions - TPSGC
11 Laurier St. / 11, rue Laurier
Place du Portage , Phase III
Core 0B2 / Noyau 0B2
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

Proposal To: Public Works and Government Services 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, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

Proposition aux: Travaux Publics et Services Gouvernementaux 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, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Issuing Office - Bureau de distribution

Training and Specialized Services Division/Division de la formation et des services spécialisés
11 Laurier St. / 11, rue Laurier
10C1, Place du Portage
Gatineau, Québec K1A 0S5

Title - Sujet
DNA Typing Profiles SOA

Solicitation No. - N° de l'invitation	**Date**
M7594-173247/A	2018-02-06

Client Reference No. - N° de référence du client
M7594-173247

GETS Reference No. - N° de référence de SEAG
PW-$$ZH-148-32172

File No. - N° de dossier	**CCC No./N° CCC - FMS No./N° VME**
148zh.M7594-173247	

Solicitation Closes - L'invitation prend fin
at - à 02:00 PM
on - le 2018-02-26

Time Zone
Fuseau horaire
Eastern Standard Time
EST

F.O.B. - F.A.B.
Plant-Usine: ☐ **Destination:** ☑ **Other-Autre:** ☐

Address Enquiries to: - Adresser toutes questions à:	**Buyer Id - Id de l'acheteur**
St-Cyr, Audrey	148zh

Telephone No. - N° de téléphone	**FAX No. - N° de FAX**
(613) 858-9049 ( )	( ) -

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:
ROYAL CANADIAN MOUNTED POLICE
1200 Vanier Parkway,
NPS lident. Bldg. Room 511
OTTAWA
Ontario
K1A0R2
Canada

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Delivery Required - Livraison exigée	**Delivery Offered - Livraison proposée**
See Herein	

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Telephone No. - N° de téléphone
Facsimile No. - N° de télécopieur

Name and title of person authorized to sign on behalf of Vendor/Firm (type or print)
Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)

Signature **Date**

Canada

DNA TYPING SERVICES FOR THE NATIONAL MISSING PERSONS DNA PROGRAM

Bid solicitation M7594-173247/A for the provision of the following professional services: DNA Typing Services for the National Missing Persons DNA Program

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 Attachments include the List of Suppliers, Pricing Schedule, and Certifications.

The Annexes include the Statement of Work, Basis of Payment, Security Requirements Check List, RCMP Security Guide, Insurance Requirements, Task Authorization Form, Sample MS Office Excel Spreadsheet for Period Usage Reports – Contracts with TAs, Non-disclosure Agreement

1.2 Summary

1.2.1 The National DNA Data Bank (NDDB) of the Royal Canadian Mounted Police (RCMP) requires Laboratory Services to support the investigation of missing persons and unidentified human remains in support of the National Missing Persons DNA Program (NMPDP).
1.2.2 The period of any resulting contract will be from date of Contract award to March 31st, 2019 inclusive. Any resulting contract will include an irrevocable option to extend the resulting contract term by up to four (4) additional one (1) year periods under the same conditions.
1.2.3 Up to two contracts can be awarded for this requirement (one for each stream).

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.

ATTACHMENT 1 TO PART 1, LIST OF SUPPLIERS

1. Maxxam
2. Wyndham Forensic Group
3. BCIT Forensic DNA Laboratory
4. Life Sciences Forensics
5. Key Forensics
6. Paton Aircraft Co & LGC
7. Bode Cellmark Forensics
8. Sorensen Forensics
9. Battelle
10. University of North Texas
11. International Commission on Missing Persons
12. California Department of Justice

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) 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 (2016-04-04), 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 calendar days.

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation. Bids transmitted to PWGSC by electronic mail will not be accepted.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

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 FPS, bidders must provide the information required in the Attachment 2 to Part 3 - Certifications and additional information 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.

2.4 Inquiries - 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.

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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.

PART 3 – BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid [4 hard copies and 1 soft copy on a USB key];
Section II: Financial Bid [1 hard copy and 1 soft copy on a USB key];
Section III: Certifications and Additional Information [1 hard copy].

This bid solicitation uses Portable Document Format (PDF) technology. To access the PDF form, bidders must have a PDF reader installed. If bidders do not already have such a reader, there are several PDF readers available on the Internet. It is recommended to use the latest version of PDF reader to benefit all features of the interactive forms.

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

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

The Bidder can bid on more than one stream of work specified in the Statement of Work, in Annex A, but must submit one separate bid for each specified stream of work. Canada requests that the Bidder clearly identifies in the first pages of its bid which stream of work it is bidding on.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:
(a) use 8.5 x 11 inch (216 mm x 279 mm) paper; and
(b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement.

To assist Canada in reaching its objectives, bidders should:
1. use paper containing fiber certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
2. use an environmentally-preferable format including black and white printing instead of color printing, printing double sided/duplex, using staples or clips instead of cerlox, duo tangs or binders.

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 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.

Part 4, Evaluation Procedures, contains additional instructions that bidders should consider when preparing their technical bid.

Section II: Financial Bid

A. Bidders must submit their financial bid in Canadian funds and in accordance with the pricing schedule detailed in Attachment 1 to Part 3.

B. Bidders must submit their rates FOB destination; Canadian customs duties and excise taxes included, as applicable; and Applicable Taxes excluded.

C. When preparing their financial bid, Bidders should review clause 4.1.2, Financial Evaluation, of Part 4 of the bid solicitation; and article 7.6, Payment, of Part 7 of the bid solicitation.

D. SACC Manual Clauses

C3010T (2014-11-27), Exchange Rate Fluctuation Risk Mitigation

Section III: Certifications and Additional Information

Bidders must submit the certifications and additional information required under Part 5 and Additional Information.

a) Bidders should complete their Certifications and Additional Information by using the PDF fillable form in Attachment 2 to Part 3 - Certifications and Additional Information.

b) Bidders should complete the interactive form electronically before printing the document for submission. Bidders should note that simply printing the document prior to completing it electronically may omit certain fields that would appear when filling out the form electronically, resulting in incomplete Certifications.

c) The form should be signed.

ATTACHMENT 1 TO PART 3, PRICING SCHEDULE

See attached.

ATTACHMENT 2 TO PART 3
Certifications and Additional Information

See attached PDF fillable Form – Attachment 2 to part 3 – Certifications and Additional Information.pdf

PART 4 – EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical evaluation criteria.

An evaluation team composed of representatives of Canada will evaluate the bids.

The evaluation team will determine first if there are two (2) or more bids with a valid Canadian Content certification for each stream. In that event, the evaluation process will be limited to the bids with the certification; otherwise, all bids will be evaluated. If some of the bids with a valid certification are declared non-responsive, or are withdrawn, and less than two responsive bids with a valid certification remain, the evaluation will continue among those bids which contain a valid certification. If all bids with a valid certification are subsequently declared non-responsive, or are withdrawn, then all the other bids received will be evaluated.

4.1.1 Technical Evaluation

4.1.1.1 Joint Venture Experience

a) Where the Bidder is a joint venture with existing experience as that joint venture, it may submit the experience that it has obtained as that joint venture.

   Example: A bidder is a joint venture consisting of members L and O. A bid solicitation requires that the bidder demonstrate experience providing maintenance and help desk services for a period of 24 months to a customer with at least 10,000 users. As a joint venture (consisting of members L and O), the bidder has previously done the work. This bidder can use this experience to meet the requirement. If member L obtained this experience while in a joint venture with a third party N, however, that experience cannot be used because the third party N is not part of the joint venture that is bidding.

b) A joint venture bidder may rely on the experience of one of its members to meet any given technical criterion of this bid solicitation.

   Example: A bidder is a joint venture consisting of members X, Y and Z. If a solicitation requires: (a) that the bidder have 3 years of experience providing maintenance service, and (b) that the bidder have 2 years of experience integrating hardware with complex networks, then each of these two requirements can be met by a different member of the joint venture. However, for a single criterion, such as the requirement for 3 years of experience providing maintenance services, the bidder cannot indicate that each of members X, Y and Z has one year of experience, totaling 3 years. Such a response would be declared non-responsive.

c) Joint venture members cannot pool their abilities with other joint venture members to satisfy a single technical criterion of this bid solicitation. However, a joint venture member can pool its individual experience with the experience of the joint venture itself. Wherever substantiation of a criterion is required, the Bidder is requested to indicate which joint venture member satisfies the requirement. If the Bidder has not identified which joint venture member satisfies the requirement, the Contracting Authority will provide an opportunity to the Bidder to submit this information during the evaluation period. If the Bidder does not submitted this information within the period set by the Contracting Authority, its bid will be declared non-responsive.

Example: A bidder is a joint venture consisting of members A and B. If a bid solicitation requires that the bidder demonstrate experience providing resources for a minimum number of 100 billable days, the bidder may demonstrate that experience by submitting either:

- Contracts all signed by A;
- Contracts all signed by B; or
- Contracts all signed by A and B in joint venture, or
- Contracts signed by A and contracts signed by A and B in joint venture, or
- Contracts signed by B and contracts signed by A and B in joint venture.

that show in total 100 billable days.

d) Any Bidder with questions regarding the way in which a joint venture bid will be evaluated should raise such questions through the Enquiries process as early as possible during the bid solicitation period.

4.1.1.2 Point Rated Technical Criteria

Refer to Attachment 1 to Part 4. Point-rated technical criteria not addressed will be given a score of zero.

4.1.1.4 Facility Assessment Visit

Canada will visit the facility proposed in the top-ranked technically compliant bid (identified after financial evaluation) to confirm both that it is as described in the bid and that it meets the technical requirements described in the Request for Proposal.

Canada will use the DNA Laboratory Audit checklist form (Attachment 2 to Part 4) and DNA Laboratory Audit File Review form (Attachment 3 to Part 4) to perform the validation.

The Contracting Authority will give the bidder a minimum of 5 working days' notice prior to the site visit to perfom the validation. Canada will then visit the facility and perform the validation. All the resources proposed in the technical bid must be present during the visit. The site visit validation will be completed within 2 working days. Canada will pay its own costs associated with the site visit validation.

The Bidder grants to Canada for the purpose of the Validation, the right to access all sites and facilities included in the bid.

Canada will document the results of the site visit Validation. Bidder must pass the site visit validation review on Attachment 2 and Attachment 3 to Part 4 to be considered compliant. If Canada determines that the Bidder does not meet all the mandatory requirements as outlined in the DNA Laboratory Audit form and Audit File Review – Attachments 2 and 3 to Part 4 of the Request for Proposal, the bid will fail the validation and the bid will be declared non-responsive. Bidder will be provided an opportunity to respond and provide proof of how they meet criteria indicated as non-compliant in Attachment 2 and/or 3 to Part 4.

4.1.2 Financial Evaluation

4.1.2.1 For bid evaluation and Contractor selection purposes only, the evaluated price of a bid will be determined in accordance with the Pricing Schedule detailed in Attachment 1 to Part 3.

4.2 Basis of Selection

4.2.1 Highest responsive combined rating of technical merit and price

4.2.1.1 To be declared responsive, a bid must:

(a) comply with all the requirements of the bid solicitation;
(b) meet all mandatory evaluation criteria; and
(c) obtain the required minimum number of points specified in Attachment 1 to Part 4 for the point rated technical criteria.

4.2.1.2 Bids not meeting 4.2.1.1 (a) or (b) or (c) will be declared non-responsive.

4.2.1.3. 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 for Stream 1 and 60% for the technical merit and 40% for the price for Stream 2.

4.2.1.4 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% for Stream 1 and 60% for Stream 2.

4.2.1.5 To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30% for Stream 1 and 40% for Stream 2.

4.2.1.6 For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.

4.2.1.7 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 x 60 = 51.11	89/135 x 60 = 39.56	92/135 x 60 = 40.89
	Pricing Score	45/55 x 40 = 32.73	45/50 x 40 = 36.00	45/45 x 40 = 40.00
Combined Rating		83.84	75.56	80.89
Overall Rating		1st	3rd	2nd

ATTACHMENT 1 TO PART 4, TECHNICAL CRITERIA

Mandatory Technical Criteria

The bid must meet the mandatory technical criteria specified below. The Bidder must provide the necessary documentation to support compliance with this requirement.

Bids which fail to meet the mandatory technical criteria will be declared non-responsive. Each mandatory technical criterion should be addressed separately.

Stream 1:

MANDATORY TECHNICAL EVALUATION CRITERIA – Stream 1 DNA Profile Development Services	
Corporate Mandatory Criteria	
M1	The Bidder must hold a valid and approved accreditation from the Standards Council of Canada (SCC) or an equivalant organization in Forensic Testing Laboratories that meets ISO 17025-2005 standard requirements. The Bidder must: a. Provide proof of accreditation certificate. b. Provide a copy of internal and external audit reports, including the responses to any corrective actions, for the past 2 years. If any of these audit reports are unavailable, bidder must provide a narrative statement indicating which reports are not available and provide an explanation why it was not completed.
M2	The Bidder must submit a copy of the Laboratory's training manual as per section 6.4 b) of Annex A
M3	The Bidder must submit a copy of the Laboratory's quality manual as per section 6.5.4.i of Annex A.
M4	The Bidder must submit a copy of the Contracting Laboratory validation studies for processes used in the laboratory for this bid solicitation as per section 6.8 a) and in accordance with section 6.7 and 6.8 of Annex A.

Resources Mandatory Criteria	
M5	The Bidder must propose a minimum of two (2) resources to perform the Work described in the Statement of Work.
M6	The Bidder must demonstrate that their proposed resources can perform the positions outlined in section 7 of the Statement of Work. The resources may perform more than one position provided they meet the technical requirements outlined for each position. For each proposed resource, the Bidder must indicate which positions each will perform and demonstrate how they meet the minimum technical requirements for each position outlined below:
M6A	The Bidder must propose one **DNA Technical Leader** that meets the following:

	a. Holds a minimum of a Masters degree in one of the following areas: biology, chemistry or a forensic science related area or equivalent[i]. Successfully completed undergraduate or graduate coursework covering the following subject areas: biochemistry, genetics, molecular biology, and coursework or training in statistics and population genetics, as it applies to forensic DNA analysis. The Bidder must provide the following: 1. Name of University; and 2. Name of Program. The following information must be provided to verify the education and course requirements : 1. Copy of Degree; and 2. Copy of Transcript.
	b. Has a minimum of three years of human forensic DNA laboratory experience in autosomal STR and Y-STR DNA analysis that was obtained at a laboratory where forensic DNA testing was conducted for the evaluation of biological evidence in criminal or missing persons and found human remains investigations. The Bidder must provide the following: 1. Copy of Curriculum Vitae to demonstrate that this requirement has been met.
M6B	The Bidder must propose two (2) **DNA Analysts (Reporting Scientists)** that meet the following:
	a. Holds a minimum of a bachelor's degree in one of the following areas: biology, chemistry or a forensic science related area[1]. The degree must include courses in all of the following subject areas: biochemistry, genetics, molecular biology, and course work and or/training in statistics and population genetics, as it applies to forensic DNA analysis. The Bidder must provide the following: 1. Name of University; and 2. Name of Program. The following information must be provided to verify the education and course requirements: 1. Copy of Degree; and 2. Copy of Transcript.
	b. Must have performed human autosomal STR and/or Y-STR DNA analysis on biological samples on a minimum of 20 cases since January 1, 2014. As a minimum, the work completed must have included human autosomal STR and/or Y-STR analysis on the following: blood, saliva, hair, bone, teeth or muscle. The Bidder must provide the following information, for each case and/or exhibit:

[1] Equivalent as established by a recognized Canadian academic credentials assessment service, if obtained outside Canada. The list of recognized organizations can be found under the Canadian Information Centre for International Credentials website, at the following Internet link: http://www.cicic.ca/indexe.stm

	1. Name of Client Organization 2. Bidder Case Number 3. Date Casework undertaken (mm/yy, or mm-dd/yy if work was undertaken in last month) 4. # of exhibits within the case or identified as a case; 5. Type of Biological Material 6. Type of DNA Analysis (Autosomal and/or Y-STR)
M6C	The Bidder must propose two (2) **DNA Technologist** that meet the following:
	a. Holds a minimum of a college diploma in one of the following areas: biology, chemistry or a forensic science related area from a recognized college. The Bidder must provide the following: 1. Name of College/University; and 2. Name of Program. The following information must be provided to verify the education requirements: 1. Copy of Diploma/Degree
	b. Must have performed human autosomal STR and/or Y-STR DNA analysis on biological samples on a minimum of 20 cases since January 1, 2014. The individual must have completed cases that required the extraction of DNA from biological samples* (blood, saliva, hair, bone, teeth or muscle), DNA quantitation*, DNA amplification of autosomal STRs and/or Y-STRs, and resolution of DNA profiles using capillary electrophoresis. *It should be noted that there is no requirement to conduct DNA extraction or DNA quantification on known reference samples processed using direct amplification procedures. The Bidder must provide the following information, for each case and/or exhibit: 1. Name of Client Organization 2. Bidder Case Number 3. Date Casework undertaken (mm/yy, or mm-dd/yy if work was undertaken in last month) 4. # of exhibits within the case or identified as a case; 5. Type of Biological Material 6. Type of DNA Analysis (Autosomal and/or Y-STR)
M6D	The Bidder must propose one **Quality Manage**r that meets the following:
	a. Holds a minimum of a College Diploma or University Undergraduate Degree in one of the following areas: Biology, Biochemistry, Biochemical Technology, Medical Laboratory Technology (or the equivalent as established by a recognized Canadian academic credentials assessment service[1], if obtained outside Canada). The Bidder must provide the following: 1. Name of College / University; and 2. Name of Program.

	The following information should be provided to verify the education requirement: 1. Copy of Diploma / Degree;
M7	The proposed resources in M6A to M6C must have completed a training program, that includes a competency test that meet the requirements detailed in Section 6.4 of Annex A. The Bidder must submit a copy of: 1. the training records for each of the proposed resources in order to demonstrate that the resources have completed their respective training program
M8	The proposed resources in M6A to M6C must participate in a proficiency testing program in the same technology, platform and typing amplification test kit used to generate the DNA data. The Bidder must submit a copy of : 1. the proficiency test records for each of the proposed resources in order to demonstrate that the resources meet the proficiency testing requirements program. The proposed resource identified in M6A must participate in a proficiency testing program if they are actively performing casework analysis or the technical review of DNA data.
Facility Mandatory Criteria	
M9	The Bidder's Facility must contain the following: 1. Reception Zone; 2. Common Operation Zone; and 3. Controlled Zones which must include the following: **a. Search room/Biological Sample Preparation room**: There must be at least one (1) separate room available for the preparation of samples from personal effect's belonging to a missing person and for the preparation of known reference samples. If one (1) room is to be used for both of these purposes then there must be a designated area in that room for the preparation of the known reference samples for DNA analysis. **b. DNA analysis rooms**: Except if a robotic workstation is used by the laboratory, techniques performed prior to PCR amplification such as DNA extractions, and PCR setup must be conducted at separate times or in separate spaces from each other. Except if a robotic workstation is used by the laboratory, amplified DNA product, including real time PCR, must be generated, processed and maintained in a room(s) separate from DNA extractions and PCR setup areas. The doors between rooms containing amplified DNA and other areas must remain closed except when used for passage into and out of the room. A robotic workstation may be used to carry out DNA extraction, quantitation and PCR setup provided that the analytical process has been validated.

	The laboratory must have a room(s) specifically dedicated for the isolation of DNA from biological material and utilize the necessary steps to monitor, clean and decontaminate such a room(s). The Bidder must provide the following that demonstrates how they meet M9: 1. Laboratory Layout Diagram; 2. List of the rooms available in the Laboratory; and 3. List of Activities for each room of the Laboratory.

Stream 2:

MANDATORY TECHNICAL EVALUATION CRITERIA – Stream 2: Mitochondrial DNA Services	
Corporate Mandatory Criteria	
M1	The Bidder must hold a valid and approved accreditation from the Standards Council of Canada (SCC) or an equivalant organization in Forensic Testing Laboratories that meets ISO 17025-2005 standard requirements. The Bidder must: a. Provide proof of accreditation certificate. b. Provide a copy of internal and external audit reports, including the responses to any corrective actions, for the past 2 years. If any of these audit reports are unavailable, bidder must provide a narrative statement indicating which reports are not available and provide an explanation why it was not completed.
M2	The Bidder must submit a copy of the Laboratory's training manual as per section 6.4 b) of Annex A
M3	The Bidder must submit a copy of the Laboratory's quality manual as per section 6.5.4.i of Annex A.
M4	The Bidder must submit a copy of the Contracting Laboratory validation studies for processes used in the laboratory for this bid solicitation as per section 6.8 a) and in accordance with section 6.7 and 6.8 of Annex A.
Resources Mandatory Criteria	
M5	The Bidder must propose a minimum of two (2) resources to perform the Work described in the Statement of Work.
M6	The Bidder must demonstrate that their proposed resources can perform the positions outlined in section 7 of the Statement of Work. The resources may perform more than one position provided they meet the technical requirements outlined for each position. For each proposed resource, the Bidder must indicate which positions each will perform and demonstrate how they meet the minimum technical requirements for each position outlined below:
M6A	The Bidder must propose one **DNA Technical Leader** that meets the following:

	a. Holds a minimum of a Masters degree in one of the following areas: biology, chemistry or a forensic science related area or equivalent[ii]. Successfully completed undergraduate or graduate coursework covering the following subject areas: biochemistry, genetics, molecular biology, and coursework or training in statistics and population genetics, as it applies to forensic DNA analysis. The Bidder must provide the following: 1. Name of University; and 2. Name of Program. The following information must be provided to verify the education and course requirements : 1. Copy of Degree; and 2. Copy of Transcript.
	b. Has a minimum of three years of human forensic DNA laboratory experience in mitochondrial DNA analysis that was obtained at a laboratory where forensic DNA testing was conducted for the evaluation of biological evidence in criminal or missing persons and found human remains investigations. The Bidder must provide the following: 1. Copy of Curriculum Vitae to demonstrate that this requirement has been met.
M6B	The Bidder must propose two (2) **DNA Analysts (Reporting Scientists)** that meet the following:
	b. Holds a minimum of a bachelor's degree in one of the following areas: biology, chemistry or a forensic science related area[2]. The degree must include courses in all of the following subject areas: biochemistry, genetics, molecular biology, and course work and or/training in statistics and population genetics, as it applies to forensic DNA analysis. The Bidder must provide the following: 1. Name of University; and 2. Name of Program. The following information must be provided to verify the education and course requirements: 1. Copy of Degree; and 2. Copy of Transcript.
	b. Must have performed human mitochondrial DNA analysis on biological samples on a minimum of 20 cases since January 1, 2014. For each case/exhibit examination a laboratory report must have been delivered. As a minimum, the work completed must have included human mitochondrial DNA analysis on the following: blood, saliva, hair, bone, teeth or muscle.

[2] Equivalent as established by a recognized Canadian academic credentials assessment service, if obtained outside Canada. The list of recognized organizations can be found under the Canadian Information Centre for International Credentials website, at the following Internet link: http://www.cicic.ca/indexe.stm

	The Bidder must provide the following information, for each case and/or exhibit: 1. Name of Client Organization 2. Bidder Case Number 3. Date Casework undertaken (mm/yy, or mm-dd/yy if work was undertaken in last month) 4. # of exhibits within the case or identified as a case; 5. Type of Biological Material
M6C	The Bidder must propose two (2) **DNA Technologist** that meet the following:
	a. Holds a minimum of a year college diploma in one of the following areas: biology, chemistry or a forensic science related area from a recognized college. The Bidder must provide the following: 1. Name of College/University; and 2. Name of Program. The following information must be provided to verify the education requirements: 1. Copy of Diploma/Degree; and 2. Copy of Transcript.
	b. Must have performed human mitochondrial DNA analysis on biological samples on a minimum of 20 cases since January 1, 2014. The individual must have completed cases that required the extraction of DNA from biological samples* (blood, saliva, hair, bone, teeth or muscle), DNA quantitation, DNA sequencing of mitochondrial DNA, and resolution of DNA sequences using capillary electrophoresis or massively parallel sequencing. The Bidder must provide the following information, for each case and/or exhibit: 1. Name of Client Organization 2. Bidder Case Number 3. Date Casework undertaken (mm/yy, or mm-dd/yy if work was undertaken in last month) 4. # of exhibits within the case or identified as a case; 5. Type of Biological Material
M6D	The Bidder must propose one **Quality Manage**r that meets the following:
	a. Holds a minimum of a College Diploma or University Undergraduate Degree in one of the following areas: Biology, Biochemistry, Biochemical Technology, Medical Laboratory Technology (or the equivalent as established by a recognized Canadian academic credentials assessment service[1], if obtained outside Canada). The Bidder must provide the following: 1. Name of College / University; and 2. Name of Program. The following information should be provided to verify the education requirement: 1. Copy of Diploma / Degree;

M7	The proposed resources in M6A to M6C must have completed a training program, that includes a competency test that meet the requirements detailed in Section 6.4 of Annex A. The Bidder must submit a copy of: 2. the training records for each of the proposed resources in order to demonstrate that the resources have completed their respective training program; and the Training Manual(s) used for the program.
M8	The proposed resources in M6A to M6C must participate in a proficiency testing program in the same technology, platform and sequencying system used to generate the DNA data. The Bidder must submit a copy of : 1. the proficiency test records for each of the proposed resources in order to demonstrate that the resources meet the proficiency testing requirements program. The proposed resource identified in M6A must participate in a proficiency testing program if they are actively performing casework analysis or the technical review of DNA data.
Facility Mandatory Criteria	
M9	The Bidder's facility must contain the following: 1. Reception Zone; 2. Common Operation Zone; and 3. Controlled Zones which must include the following: **a. Search room/Biological Sample Preparation room**: There must be at least one (1) separate room available for the preparation of samples from personal effect's belonging to a missing person and for the preparation of known reference samples. If one (1) room is to be used for both of these purposes then there must be a designated area in that room for the preparation of the known reference samples for DNA analysis. **b. DNA analysis rooms**: Except if a robotic workstation is used by the laboratory, techniques performed prior to PCR amplification such as DNA extractions, and PCR setup must be conducted at separate times or in separate spaces from each other. Except if a robotic workstation is used by the laboratory, amplified DNA product, including real time PCR, must be generated, processed and maintained in a room(s) separate from DNA extractions and PCR setup areas. The doors between rooms containing amplified DNA and other areas must remain closed except when used for passage into and out of the room. A robotic workstation may be used to carry out DNA extraction, quantitation and PCR setup provided that the analytical process has been validated. The laboratory must have a room(s) specifically dedicated for the isolation of DNA from biological material and utilize the necessary steps to monitor, clean and decontaminate such a room(s). The Bidder must provide the following: 4. Laboratory Layout Diagram; 5. List of the rooms available in the Laboratory; and

	6. List of Activities for each room of the Laboratory.

Point Rated Technical Criteria

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

Bids which fail to obtain the required minimum number of points specified will be declared non-responsive. Each point rated technical criterion should be addressed separately.

Stream 1:

POINT RATED TECHNICAL EVALUATION CRITERIA – Stream 1: DNA Profile Development Services			
Corporate Criteria			
Item	Rated Criteria	Allocation of Points	Maximum Score
P1	The copy of the Bidder's internal and external audit reports for the past 2 years provided as proof of M1 will be used to evaluate the bidder's level of performance and ability to meet the required high quality standards, defined as follows: Achieved: No moderate or serious non-conformances reported in the internal and external audit reports for the past 2 years that affect the test results or render the quality management system ineffective.. Minor/Moderate non-conformity: Only minor or moderate non-conformances were reported in the internal and external reports for the past 2 years and the corrective actions implemented for the non-conformances identified have been documented to be effective. Serious non-conformity: At least one serious non-conformance was reported in the internal and external reports for the past 2 years years that affected the test results or render the quality management system ineffective. The corrective action(s) implemented for the non-conformance(s) identified have been documented to be effective.	Points will be awarded as follows: Achieved: 10 points Minor non-conformity: 5 points Serious non-conformity: 1 point	10

P2	The Bidder should demonstrate if the proposed laboratory utilizes any of the following type(s) of autosomal kits to develop the DNA profiles: - GlobalFiler® and/or GlobalFiler® Express, PowerPlex Fusion and/or PowerPlex Fusion 6C - AmpF/STR® Identifiler® Plus and/or AmpF/STR® Identifiler® Direct, PowerPlex® 16 HS	Points will be awarded as follows: GlobalFiler® and/or GlobalFiler® Express, PowerPlex Fusion and/or PowerPlex Fusion 6C = 10 points AmpF/STR® Identifiler® Plus and/or AmpF/STR® Identifiler® Direct, PowerPlex® 16 HS = 5 points	10
P3	The Bidder should demonstrate if the proposed laboratory utilizes any of the following type(s) Y-STR kits to develop the DNA profiles: - AmpF/STR® Yfiler™Plus, Powerplex® Y23 - AmpF/STR® Yfiler™ - Powerplex® Y	Points will be awarded as follows: AmpF/STR® Yfiler™Plus, Powerplex® Y23 = 10 points AmpF/STR® Yfiler™ = 5 points Powerplex® Y = 1 points	10
P4	The Bidder should demonstrate if the proposed laboratory utilizes the following analytical equipment for the development of the DNA profiles: Applied Biosystems 3500 xL Genetic Analyzer	Yes = 5 points	5
P5	The Bidder should demonstrate if the proposed laboratory utilizes the following software to interpret the DNA typing results: GeneMapper® ID-X Software	Yes = 5 points	5
P6	The Bidder should demonstrate if they have experience working with government organizations (federal, provincial or municipal). The Bidder must submit a copy of : a) List detailing their experience that includes at minimum the government organization, date(s) or date range, name of contact person and contract number (if applicable).	Yes = 5 points	5

Resource Criteria:			
P7	The proposed DNA Analyst (Reporting Scientist) has performed human autosomal and/or Y-STR analysis on biological samples above the mandatory 20 cases since January 1, 2014 at M6B. As a minimum, the work completed must have included human autosomal STR and/or Y-STR DNA analysis on the following: blood, saliva, hair, bone, teeth or muscle.	1 point for every additional 5 cases to a maximum of 10 points per resource (2 resources). Maximum for the 2 resources is 20 points.	20
P8	The proposed DNA Technologist resource has performed human autosomal STR and/or Y-STR DNA analysis on biological samples above the minimum 20 cases since January 1, 2014 at M6C. As a minimum, the work completed must have included the extraction of DNA from biological samples* (blood, saliva, hair, bone, teeth or muscle), DNA quantitation*, DNA amplification of autosomal STRs/Y-STRs DNA, and resolution of DNA profiles using capillary electrophoresis. *It should be noted that there is no requirement to conduct DNA extraction or DNA quantification on known reference samples processed using direct amplification procedures.	1 point for every additional 5 cases to a maximum of 10 points per resource (2 resources). Maximun for the 2 resources is 20 points.	20
	Total Score Minimum pass score (insert 70%)		85 59.5

Stream 2:

POINT RATED TECHNICAL EVALUATION CRITERIA- Stream 2: Mitochondrial DNA Services			
Corporate Criteria			
Item	Rated Criteria	Allocation of Points	Maximum Score
P1	The copy of the Bidder's internal and external audit reports for the past 2 years provided as proof of M1 will be used to evaluate the bidder's level of performance and ability to meet the required high quality standards, defined as follows: Achieved: No moderate or serious non-conformances reported in the internal and external audit reports for the past 2 years that affect the test results or render the quality management system ineffective.. Minor/Moderate non-conformity: Only minor or moderate non-conformances were reported in the internal and external reports for the past 2 years and the corrective actions implemented for the non-conformances identified have been documented to be effective. Serious non-conformity: At least one serious non-conformance was reported in the internal and external reports for the past 2 years years that affected the test results or render the quality management system ineffective. The corrective action(s) implemented for the non-conformance(s) identified have been documented to be effective.	Points will be awarded as follows: Achieved: 10 points Minor non-conformity: 5 points Serious non-conformity: 1 point	10
P2	The Bidder should demonstrate if they have experience working with government organizations (federal, provincial or municipal). The Bidder must submit a copy of : a) List detailing their experience that includes at minimum the government organization, date(s) or date range, name of contact person and contract number (if applicable).	Yes = 5 points	5
Resource Criteria			
Item	Rated Criteria	Allocation of Points	Maximum Score
P3	The proposed DNA Analyst (Reporting Scientist) has performed human mitochondrial DNA analysis on biological samples above the mandatory 20 cases since January 1, 2014 at M6B.	1 point for every additional 5 cases to a maximum of 10 points per resource (2 resources).	20

	As a minimum, the work completed must have included human mitochondrial DNA analysis on the following: blood, saliva, hair, bone, teeth or muscle.	Maximum for the 2 resources is 20 points.	
P4	The proposed DNA Technologist resource has performed human mitochondrial DNA analysis on biological samples above the minimum 20 cases since January 1, 2014 at M6C. As a minimum, the work completed must have included the extraction of DNA from biological samples* (blood, saliva, hair, bone, teeth or muscle), DNA quantitation, DNA sequencing of mitochondrial DNA, and resolution of DNA sequences using capillary electrophoresis or massively parallel sequencing.	1 point for every additional 5 cases to a maximum of 10 points per resource (2 resources). Maximun for the 2 resources is 20 points.	20
	Total Score Minimum pass score (insert 60%)		55 33

ATTACHMENT 2 TO PART 4, ON-SITE AUDIT OF A PRIVATE/VENDOR LABORATORY COMPLIANCE CHECKLIST.

See attached NDDB On-site Audit of a Private/Vendor Laboratory Compliance Checklist.

ATTACHMENT 3 TO PART 4, ONSITE AUDIT OF A PRIVATE/VENDOR LABORATORY – CASEWORK FILE REVIEW CHECKLIST

See attached NDDB Onsite Audit of a Private/Vendor Laboratory – Casework File Review Checklist.

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract by using the Attachment 2 to Part 3.

PART 6 – SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1 Security Requirement

6.1.1 Before award of a contract, the following conditions must be met:

a. the Bidder must hold a valid organization security clearance as indicated in Part 7 - Resulting Contract Clauses;

b. the Bidder's proposed individuals requiring access to classified or protected information, assets or sensitive work sites must meet the security requirement as indicated in Part 7 - Resulting Contract Clauses;

c. the Bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites;

d. the Bidder's proposed location of work performance and document safeguarding must meet the security requirements as indicated in Part 7- Resulting Contract Clauses; and

e. the Bidder must provide the address of each proposed site or premise of work performance and document safeguarding as follows:

Address:
Street Number / Street Name, Unit / Suite / Appartment Number
City, Province, Territory / State
Postal Code / Zip Code
Country

If the information is not provided in or with the bid, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.

6.1.2 Bidders are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful Bidder to obtain the required clearance will be at the entire discretion of the Contracting Authority.

6.1.3 For additional information on security requirements, Bidders should refer to the Contract Security Program of Public Works and Government Services Canada (http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) website.

6.2 Insurance Requirements

The Bidder must provide a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Bidder, if awarded a contract as a result of the bid solicitation, can be insured in accordance with the Insurance Requirements specified in Annex E.

If the information is not provided in the bid, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.

PART 7 – RESULTING CONTRACT CLAUSES

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

7.1 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work in Annex A.

7.1.1 Task Authorization

A. Work described at Annex A, Statement of Work will be performed under the Contract on an "as and when requested basis".

B. With respect to the Work mentioned under paragraph A of this clause,

1. an obligation will come into force only when the Contractor receives a Task Authorization (TA), inclusive of any revisions, authorized and issued in accordance with this clause, and only to the extent designated in the authorized TA;

2. the TA Authority and limit will be determined in accordance with paragraph C of this clause;

3. the Contractor must not commence work until a TA, inclusive of any revisions, has been authorized and issued in accordance with the Contract. The Contractor acknowledges that work performed before a TA, inclusive of any revisions, has been authorized and issued in accordance with the Contract will be done at the Contractor's own risk and expense;

4. the task description, inclusive of any revisions, included in an authorized TA must fall within the scope of the Statement of Work, in Annex A*;* and

5. the TA, inclusive of any revisions, will be authorized under the Contract through the use of Annex E Task Authorization Form. An authorized TA is a completed Annex E signed by the TA Authority.

C. TA Authority and Limit

The Project Authority may authorize individual TAs inclusive of any revisions up to a limit of $200,000.00 Applicable Taxes extra. Any TA the total value of which would exceed that limit or any revision to a previously authorized TA that would increase theTA total value above that limit must be authorized by the Contracting Authority before issuance to the Contractor.

D. The authority specified under paragraph C of this clause is granted subject to the sum specified in the Contract under clause 7.6.1 (Cumulative Total of all authorized TAs) not being exceeded.

E. TA Process

For each task or revision of a previously authorized task, the Project Authority will provide the Contractor with a request to perform a task prepared using Annex F, Task Authorization Form, containing as a minimum:

- the task or revised task description of the Work required, including:
  - the details of the activities or revised activities to be performed;
  - a description of the deliverables or revised deliverables to be submitted; and

- a schedule or revised schedule indicating completion dates for the major activities or submission dates for the deliverables, or both, as applicable;

o the Contract security requirements applicable to the task or revised task;
o the Contract basis (bases) of payment applicable to the task or revised task*;* and
o the Contract method(s) of payment applicable to the task or revised task.

F. Within 7 calendar days of its receipt of the request, the Contractor must provide the Project Authority with a signed and dated response prepared and submitted using the TA form received from the Project Authority, containing as a minimum:

1. the total estimated cost proposed for performing the task or, as applicable, revised task;
2. a breakdown of that cost in accordance with the Basis of Payment;

G. TA Authorization

1. The TA Authority will authorize the TA based on:

   o the request submitted to the Contractor pursuant to paragraph F of this clause;
   o the Contractor's response received, submitted pursuant to paragraph G of this clause; and
   o the agreed total estimated cost for performing the task or, as applicable, revised task

2. The authorized TA will be issued to the Contractor by email (as an email attachment in PDF format).

I. Minimum Work Guarantee - All the Work - Authorized TAs

1. "Maximum Contract Value" means the sum specified in Contract clause 7.6.2 (Canada's Total Liability, Cumulative Total of all authorized TAs; and "Minimum Contract Value" 3% of the Initial Contract Period value.

2. Canada's obligation under the Contract is to request Work in the amount of the Minimum Contract Value or, at Canada's option, to pay the Contractor at the end of the Contract in accordance with paragraph I.3 of this clause. In consideration of such obligation, the Contractor agrees to stand in readiness throughout the Contract period to perform the Work. Canada's maximum liability for Work requested in authorized TAs, performed by the Contractor and accepted by Canada must not exceed the Maximum Contract Value, unless an increase is authorized in writing by the Contracting Authority.

3. In the event that Canada does not request Work in the amount of the Minimum Contract Value during the period of the Contract, Canada must pay the Contractor the difference between the Minimum Contract Value and the cost of the Work requested in authorized TAs, performed by the Contractor and accepted by Canada.

4. Canada will have no obligation to the Contractor under this clause if Canada terminates the Contract in whole or in part for default.

J. Periodic Usage Reports - Contracts with TAs

1. The Contractor must compile and maintain detailed and current data on its performance of Work required and requested under TAs (inclusive of any revisions) authorized and issued under the Contract.

2. No later than 15 calendar days after the end of each of the reporting periods below, the Contractor must submit to the Contracting Authority and Project Authority a periodic usage report containing, in an electronic spreadsheet (such as MSOffice Excel), the data elements specified in paragraphs J.3 and J.4 of this clause in the order they are presented. Where at the end of a reporting period, no changes are required to be made to the data contained in the periodic usage report submitted for the previous period, the Contractor must submit a "NIL" report to the Contracting Authority and Project Authority.

The reporting periods are defined as follows:

1st quarter: April 1 to June 30;
2nd quarter: July 1 to September 30;
3rd quarter: October 1 to December 31; and
4th quarter: January 1 to March 31.

A sample MSOffice spreadsheet containing the data elements contained in paragraphs J.3 and J.4 of this clause is provided in Annex G.

3. For each TA authorized and issued under the Contract, the data must contain the following data elements in the order presented:

- the TA number appearing on the TA form;
- the date the task was authorized appearing on the TA form;
- the total estimated cost of the task (Applicable Taxes extra) before any revisions appearing on the TA form;
- the following information appearing on the TA form must be included for each authorized revision, starting with revision 1, than 2, etc:
- the TA revision number;
- the date the revision to the task was authorized;
- the authorized increase or decrease (Applicable Taxes extra);
- the total estimated cost of the task (Applicable Taxes extra) after authorization of the revision;
- the total cost incurred for the task (as last revised, as applicable), Applicable Taxes extra;
- the total cost incurred and invoiced for the task (as last revised,as applicable), Applicable Taxes extra;
- the total amount of Applicable Taxes invoiced;
- the total amount paid, Applicable Taxes included;
- the start and completion date of the task (as last revised, as applicable); and
- the active status (i.e., the percentage of the work completed) of the task (as last revised, as applicable) with an explanation (as applicable).

4. For all TAs authorized and issued under the Contract, the data must contain the following data elements in the order presented:

- the sum (Applicable Taxes extra) specified in clause 7.6.1, Cumulative Total of all Authorized TAs, as last amended;
- the total cost incurred for all authorized tasks inclusive of any revisions, Applicable Taxes extra;
- the total cost incurred and invoiced for all authorized tasks inclusive of any revisions, Applicable Taxes extra;
- the total amount of Applicable Taxes invoiced for all authorized tasks inclusive of any revisions; and
- the total amount paid for all authorized tasks inclusive of any revisions, Applicable Taxes extra.

7.2 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) issued by Public Works and Government Services Canada.

7.2.1 General Conditions

2035 (2016-04-04), General Conditions - Higher Complexity - Services, apply to and form part of the Contract.

7.2.2 Supplemental General Conditions

A9117C (2007-11-30), T1204 - Direct Request by Customer Department

7.2.3 Inspection and Acceptance

The Project Authority is the Inspection Authority. All reports, deliverable items, documents, goods and all services rendered under the Contract are subject to inspection by the Inspection Authority or representative. Should any report, document, good or service not be in accordance with the requirements of the Statement of Work and to the satisfaction of the Inspection Authority, as submitted, the Inspection Authority will have the right to reject it or require its correction at the sole expense of the Contractor before recommending payment.

7.2.4 Specific Person(s)

The Contractor must provide the services of the following person(s) to perform the Work as stated in the Contract: _____ (insert name(s) of person(s)) .

7.2.5 Non-Disclosure Agreement

The Contractor must obtain from its employee(s) or subcontractor(s) the completed and signed non disclosure agreement, attached at Annex H, and provide it to the Project Authority before they are given access to information by or on behalf of Canada in connection with the Work.

7.3 Security Requirement

7.3.1 The following security requirement (SRCL and related clauses provided by the Contract Security Program apply and form part of the Contract:

a) The Contractor must, at all times during the performance of the Contract, hold a valid Designated Organization Screening (DOS) with approved Document Safeguarding at the level of PROTECTED A, issued by the Canadian Industrial Security Directorate, Public Works and Government Services Canada.

b) The Contractor personnel requiring access to PROTECTED information, assets or work site(s) must EACH hold a valid RELIABILITY STATUS, granted or approved by the Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC).

c) The Contractor MUST NOT utilize its Information Technology systems to electronically process, produce or store PROTECTED information until the CISD/PWGSC has issued written approval.

d) After approval has been granted or approved, these tasks may be performed up to the level of PROTECTED A.

e) Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of CISD/PWGSC.

f) The Contractor must comply with the provisions of the:
   a. Security Requirements Check List and security guide (if applicable), attached at Annex D;
   b. *Industrial Security Manual* (Latest Edition).

7.3.2 The RCMP Security Guide in Annex D apply and form part of the Contract.

7.3.3 Contractor's Site or Premises Requiring Safeguarding Measures

7.3.2.1 Where safeguarding measures are required in the performance of the Work, the Contractor must diligently maintain up-to-date the information related to the Contractor's and proposed individuals'sites or premises for the following addresses:

Address:
Street Number / Street Name, Unit / Suite / Apartment Number
City, Province, Territory / State
Postal Code / Zip Code
Country

7.3.2.2 The Company Security Officer (CSO) must ensure through the Contract Security Program that the Contractor and proposed individuals hold a valid security clearance at the required level.

7.4 Term of Contract

7.4.1 Period of the Contract

The period of the Contract is from date of Contract to March 31, 2019 inclusive.

7.4.2 Option to Extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to four additional one year periods under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

7.5 Authorities

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Audrey St-Cyr
Supply Specialist
Public Works and Government Services Canada

Acquisitions Branch
Training and Specialized Services Division
10 Wellington St., Gatineau, QC

Telephone: 613-858-9049
Audrey.st-cyr@pwgsc-tpsgc.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.

7.5.2 Project Authority

The Project Authority for the Contract is:
Name: _____
Title: _____
Organization: _____
Address: _____
Telephone: ___- ___- ___
Facsimile: ___- ___- ___
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.

7.5.3 Contractor's Representative

(Fill in at time of contract award.)

7.6 Payment

7.6.1 Basis of Payment

7.6.1.1 Authorized TA

Firm Unit Price TA

In consideration of the Contractor satisfactorily completing all of its obligations under the authorized TA, the Contractor will be paid the firm unit price as indicated in Annex B. Customs duties are included and Applicable Taxes are extra.

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

TA subject to a Limitation of Expenditure

The Contractor will be paid for its costs reasonably and properly incurred in the performance of the Work specified in the authorized TA in accordance with the basis of payment in Annex B to the limitation of expenditure specified in the authorized TA.

Canada's total liability to the Contractor under the authorized TA must not exceed the limitation of expenditure specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.

Cumulative Total of all authorized TAs

A. Canada's total liability to the Contractor under the Contract for all authorized TAs, inclusive of any revisions, must not exceed the sum of $ _____(insert amount at contract award). Customs duties are included and the Applicable Taxes are extra.

B. No increase in the total liability of Canada will be authorized or paid to the Contractor unless an increase has been approved, in writing, by the Contracting Authority.

C. The Contractor must notify the Contracting Authority, in writing, as to the adequacy of this sum:

1. when it is 75 percent committed, or
2. four (4) months before the Contract expiry date, or
3. as soon as the Contractor considers that the sum is inadequate for the completion of the Work requested in all authorized TAs inclusive of any revisions, the applicable basis of payment of which is limitation of expenditure,

whichever comes first.

D. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

7.6.2 Method of Payment

Canada will pay the Contractor on a monthly basis for work performed during the month covered by the invoice in accordance with the payment provisions of the Contract if:

a) an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;

b) all such documents have been verified by Canada;

c) the Work performed has been accepted by Canada.

7.6.3 Electronic Payment of Invoices - Contract

(to be completed at contract award)

The Contractor accepts to be paid using any of the following Electronic Payment Instruments:

a. Visa Acquisition Card;
b. MasterCard Acquisition Card;
c. Direct Deposit (Domestic and International);
d. Electronic Data Interchange (EDI);
e. Wire Transfer (International Only);

7.6.4 Discretionary Audit

C0705C (2010-01-11), Discretionary Audit

7.7 Invoicing Instructions

The Contractor must submit invoices in accordance with the section entitled "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:

i. the TA information (at minimum, the TA information provided will include the TA number, service number(s), date of TA, TA amendment information (if applicable), sub-total of TA before tax, applicable tax, total invoice amount with tax).

Invoices must be distributed as follows:

i. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
ii. A copy of the summary invoice must be forwarded via email to the Contracting Authority identified under the section entitled "Authorities" of the Contract at the following email address: tpsgc.facturationzh-zhinvoicing.pwgsc@tpsgc-pwgsc.gc.ca. The contract number and contracting authority's name must be entered in the subject line of the email.

7.8 Certifications and Additional Information

7.8.1 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.

7.8.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to 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 website (https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#). The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

7.8.3 Canadian Content Certification

Insert the clause by reference if the procurement is subject to the Canadian Content Policy.

SACC Manual clause A3060C (___-__-__) insert the date (year-month-day) Canadian Content Certification

7.9 Applicable Laws

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

7.10 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;
(b) the general conditions 2035 (2016-04-04), General Conditions - Higher Complexity - Services;
(c) Annex A, Statement of Work;
(d) Annex B, Basis of Payment ;
(e) Annex C and D, Security Requirements;
(f) Annex E, Insurance Requirements (if applicable);
(g) the signed Task Authorizations (including all of its annexes, if any); and
(h) the Contractor's bid dated _____.

7.11 Foreign Nationals

As applicable, insert by reference SACC Manual clauses A2001C and A2000C . It is to be noted that the Trade Agreements Strategy Group of Acquistion Policy and Process Directorate confirmed that where only the AIT applies to the procurement, Canada may still be dealing with foreign contractors.

SACC Manual clause A2001C (___-__-__) (year-month-day), Foreign Nationals (Foreign Contractor)
SACC Manual clause A2000C (__-__-__) (year-month-day), Foreign Nationals (Canadian Contractor)

7.12 Insurance Requirements

The Contractor must comply with the insurance requirements specified in Annex E. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within ten (10) days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. Coverage must be placed with an Insurer licensed to carry out business in Canada. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

ANNEX A, STATEMENT OF WORK

1. TITLE

DNA Typing Services for the National Missing Persons DNA Program

2. SCOPE

2.1 OBJECTIVE

The objective is to provide the National DNA Data Bank (NDDB) of the Royal Canadian Mounted Police (RCMP) with DNA typing services to support the investigation of missing persons and unidentified human remains in support of the National Missing Persons DNA Program (NMPDP).

2.2 BACKGROUND

The RCMP is the steward of the NDDB on behalf of the Government of Canada. It operates the NDDB for the benefit of the entire law enforcement community within Canada. The NDDB is a service provided by Forensic Science & Identification Services and operates under the leadership of the Director, Science & Strategic Partnerships.

In December 2014, Parliament passed amendments to the DNA Identification Act that will establish a humanitarian application within the NDDB, which is maintained by the RCMP, by expanding the existing infrastructure to establish three (3) humanitarian indices:

a) Missing Persons Index (MPI) – This index will contain DNA profiles derived from personal effects or direct reference samples of missing persons (e.g., medical samples, bodily substance or clothing);
b) Human Remains Index (HRI) – This index will contain DNA profiles derived from human remains; and,
c) Relatives of Missing Persons Index (RMI) – This index will contain DNA profiles collected with consent from family members of missing persons, used to confirm the profiles of missing persons and to identify remains through kinship analysis.

The 2014 Federal Budget had provided funds to establish a DNA based Missing Persons Program within the RCMP and henceforth referred to as the National Missing Persons DNA Program (NMPDP). The funds identified were to create and maintain program infrastructure for this new investigative tool, including the verification, comparison and reporting of potential DNA matches and/or DNA associations.

In June 2017, the Federal Government approved a new service delivery model in which the NDDB would now be responsible for the development of DNA profiles from biological samples collected as part of a non-criminal missing person or found human remains investigation. Under this service delivery model, the primary investigative agency, be it police, coroner or medical examiner, will be able to submit missing person samples (personal effect or direct reference samples), family reference samples and/or the found human remain to the NDDB for DNA profile development. The DNA profiles derived from these samples would then be entered into the appropriate humanitarian DNA index of the NDDB, and searched against other DNA profiles as permitted by the amendments made to the *DNA Identification Act*.

During the initial establishment of the NMPDP, the NDDB will require the services of a Contractor Laboratory that is capable of developing DNA profiles from: a) the personal effects or direct reference samples of missing persons; b) found human remains (hard and soft tissue samples) and c) known reference samples collected with consent from the relatives of missing persons. In all cases, the DNA profiles developed by the Contracting Laboratory will be provided to the NDDB for technical review and potential acceptance for entry into the appropriate humanitarian DNA index.

2.3 TERMINOLOGY

a) CODIS – Combined DNA Index System
b) DNA – Deoxyribonucleic Acid
c) HRI – Human Remains Index
d) HV 1 – Hypervariable Region 1
e) HV 2 – Hypervariable Region 2
f) ISO/IEC –International Organization of Standards/International Electrotechnical Commission
g) MPI – Missing Persons Index
h) NDDB- National DNA Data Bank
i) NIST – National Institute of Standards Technology
j) NMPDP – National Missing Persons DNA Program
k) PCR – Polymerase Chain Reaction
l) PSPC – Public Services and Procurement Canada
m) QA – Quality Assurance
n) RCMP – Royal Canadian Mounted Police
o) RMI – Relatives of Missing Persons Index
p) SCC – Standards Council of Canada
q) STR – Short Tandem Repeat

3. APPLICABLE AND REFERENCE DOCUMENTS

The following documents complement or support the content of this Statement of Work and they will serve as a standard baseline for the duration of the Contract. Documents a), b), c), d), e) and f) are available in electronic form, upon request to Public Services and Procurement Canada (PSPC). Documents g), h), i), j), k) and l) are available from each respective organization website (Internet links are provided) . Note documents i) and j) both require that a fee be paid for downloading of the document.

a) RCMP Forensic Science & Identification Services, National Forensic Laboratories Services and NDDB Quality Manual and NDDB supplement;
b) NDDB DNA Data Acceptance Standards;
c) NDDB Program Policies and Procedure Manual;
d) NDDB CODIS Methods Guide;
e) NDDB Standard Operating Procedures and Forms;
f) NCMPUR Standard Operating Procedures, Forms and Best Practices;
g) *DNA Identification Act*;
h) *DNA Identification Regulations*;
i) SCC Requirements and Guidance for the Accreditation for Forensic Testing Laboratories, 2017-07-17, www.scc.ca;
j) ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories www.iso.org;
k) Quality Assurance (QA) Standards for Forensic DNA Testing Laboratories - www.swgdam.org; and
l) National DNA Index System (NDIS), FBI Laboratory, version 4, Effective May 1, 2016, https://www.fbi.gov/about-us/lab/biometric-analysis/codis/ndis-procedures-manual.

4. REQUIREMENT

4.1 SCOPE OF WORK

The NDDB requires the following services on an as and when requested basis:

a) **Stream 1** - **Autosomal and Y-STR DNA Profile Development Service & Hard Tissue Preparation Service**

1. Development of Autosomal and Y-STR DNA profiles

A Contractor must process biological samples, including missing person samples, family reference samples and human remain samples (soft and hard tissue), and characterize these samples as follows:

i. Autosomal STR analysis that tests, at a minimum, the original thirteen (13) core CODIS loci. DNA information at additional CODIS loci will also be accepted for review by the NDDB (See Appendix 1).

ii. Y-STR analysis that tests the CODIS Y-STR loci (See Appendix 2).

2. Preparation of Hard Tissue Samples for Subsequent DNA Analysis by the NDDB

A Contractor is required to prepare hard tissue samples from human remains, such as bone and teeth, for subsequent DNA profile development by the NDDB.

The Contractor must be capable of pulverizing hard tissue samples into a powder suitable for DNA extraction:

i. The process must not introduce any foreign/contaminating DNA during the sample preparation process.

ii. The DNA profiles from personnel responsible for the sample preparation must be provided by the Contracting Laboratory. The identifiers for these DNA profiles are to be coded by the Contractor so as not to reveal the name of the individual. These DNA profiles are required for contamination monitoring by the NDDB.

b) **Stream 2** – **Mitochondrial DNA Sequencing Service for Missing Person Samples, Family Reference Samples and Human Remain Samples**

1. Mitochondrial DNA Sequencing Service

A Contractor is required to process missing person samples, family reference samples and human remain samples (soft and hard tissue), and characterize those samples at the following genetic regions:

i. Hypervariable Region 1 (HV1: minimum range from position 16024 to 16365) and Hypervariable Region 2 (HV2: minimum range from position 73 to 340) of mitochondrial DNA. (Appendix 3)

4.2 TASKS

The contractor must provide the following services:

4.2.1 Receipt of biological samples from the NDDB.

(i) Receive the biological samples submitted by courier to the Contracting Laboratory for examination;

(ii) Inventory the content of the submission against the manifest document to ensure nothing is missing and note the condition of the biological samples submitted. The NDDB is to be notified of any concerns pertaining to missing or additional biological samples and the state of the samples as received;

(iii) Clarify with the NDDB any concerns pertaining to identification markings on the biological samples, the description (including the stated biological relationship of a family reference sample) before any biological sample examinations are initiated;

(iv) Email the NDDB confirmation detailing items received;

(v) Understand the specific casework requirements before any examinations are started. If necessary, discuss the nature of the sample and the type of DNA analysis procedures required with the NDDB.

Stream 1: DNA Profile Development Services

i. Human Remain Samples
   1. Nature of sample:
      a. Hard Tissue - bone, tooth
      b. Soft Tissue - muscle
   2. Type of DNA analysis to be conducted:
      a. autosomal STR
      b. Y-STR

ii. Missing Person Sample
   1. Nature of sample:
      a. direct reference sample (medical sample)
      b. personal effect (e.g. razor, tooth brush, eyeglasses, comb)
   2. Type of DNA analysis to be conducted:
      a. autosomal STR
      b. Y-STR

iii. Family Reference Sample
   1. Nature of sample:
      a. blood or buccal
   2. Type of DNA analysis to be conducted:
      a. autosomal STR
      b. Y-STR

Stream 2: Mitochondrial DNA Services

i. Human Remain Samples
   1. Nature of sample:
      a. Hard Tissue - bone, tooth
      b. Soft tissue - muscle
   2. Type of DNA analysis to be conducted:
      a. mitochondrial DNA sequencing

ii. Missing Person Samples
   1. Nature of sample:
      a. direct reference sample (medical sample)
      b. personal effect (e.g. razor, tooth brush, eyeglasses, comb)
   2. Type of DNA analysis to be conducted:
      a. mitochondrial DNA sequencing

iii. Family Reference Samples
1. Nature of sample:
a. blood or buccal
2. Type of DNA analysis to be conducted:
a. mitochondrial DNA sequencing

(vi) Provide advice as required to the NDDB on potential risks to the exhibits (such as exhibits that may have to be altered or possibly consumed during analysis); and

(vii) Record in the file documentation a summary of all discussions that occurred during the receipt of the samples and any discussions that may occur while working on the samples and following completion of the file.

4.2.2 Safekeeping of biological material

a) Keep all biological material and DNA extracts in appropriate containers or lockers.

b) Keep human remain samples, missing persons samples and family reference samples separate from each other, and prevent contamination of these samples from each other or by other biological samples or known reference samples.

4.2.3 Sample identification

a) Use the unique sample identification number designated by the NDDB for each individual sample for which DNA data is to be submitted to NDDB.

4.2.4 Preparation of biological samples for DNA Analysis

a) Prepare the human remain samples separately from the personal effects and family reference samples.

b) For hard tissue samples from human remains, the Contracting Laboratory should take a sample for testing and a sample for archiving. The archival sample should be of ample size for re-extraction and re-analysis. This sample should be transferred to a sterile container and packaged separately from the parent sample. Residual bone powder not consumed during the testing procedure should be transferred to a suitable sterile container (e.g. 2 ml screw cap tube or 15 ml conical tube) and packaged separately from the parent sample. The archival tube and the residual bone powder may be packaged together.

Note: It is necessary to preserve the length of a bone. Therefore, bones submitted for DNA analysis are not to be cut completely through.

4.2.6 DNA Analysis

a) Include a reagent blank with each extraction or extraction batch. Reagent blanks must be processed identically to that of the respective biological sample.

b) Quantify the total amount of human DNA in non-reference biological samples prior to DNA amplification. Quantitation of human DNA is not required for known reference samples if the laboratory has a validated system that has been demonstrated to reproducibly and reliably yield successful DNA amplification and typing without prior quantitation.

c) Process a positive and negative control with each PCR amplification and DNA sequencing reaction.

4.2.7 Recording of Results

a) Record the results of the DNA analysis.

b) Properly document the results, assemble them and pass them on to the next stage, Interpretation of Results.

4.2.8 Interpretation of Results

a) Interpret the results of the DNA analysis and, as a minimum, provide the following information:

   i. Indication of the presence of a single source or mixed DNA profile;

b) DNA profiles must be compared to the Contracting Laboratory's member database and their contamination database.

c) Must have and follow a documented procedure to address unresolved discrepant conclusions between the initial DNA analyst and the reviewing DNA analyst.

4.2.9 Technical and Administrative Review of Files

a) Conduct and document technical and administrative reviews of all work to ensure conclusions and supporting data are reasonable and within the constraints of scientific knowledge.

   i. An individual conducting technical reviews must be or have been a DNA Analyst/Reporting Scientist qualified in the methodology being reviewed.

b) Document the completion of the technical review and include the following elements in the technical review:

   i. A review of all notes, all worksheets, and the electronic data (or printed electropherograms or images) supporting the conclusions;

   ii. A review of all DNA types to verify that they are supported by the raw or analyzed data (electropherograms or images);

   iii. A review of all DNA profiles or sequences to verify interpretation of the data and compliance with laboratory guidelines;

   iv. A review of all controls, internal lane standards and allelic ladders to verify that the expected results were obtained;

c) The administrative review must include the following elements, any or all of which may be included within the technical review:

   i. A review of the file and final DNA data to be provided to the NDDB for clerical errors; and

   ii. A review of the chain of custody and disposition of biological samples.

d) The laboratory must document the elements of a technical and administrative review. Files must be reviewed and documented according to the laboratory's procedure.

5. DELIVERABLES AND ACCEPTANCE CRITERIA

a) The Contractor must provide in hard copy and soft copy in PDF format the following items upon completion of DNA analysis to the NDDB as specified on the TA:

i. An itemized list of the biological samples and profiles being returned to the NDDB including NCMPUR Occurrence Number.
ii. Sample examination/preparation notes and images, DNA analysis notes and DNA analysis files and tracking documentation of the exhibits.
iii. All electropherograms associated with a particular sample and the associated controls. This data could also be provided in electronic format as a ".hid" or ".ser " file. Documentation that all associated controls, allelic ladders and size standards were satisfactory.
iv. Documentation demonstrating the technical and administrative reviews of the submission were satisfactory.
v. Documentation that the submitted DNA profiles have been compared against the Contracting Laboratory contamination/members' database.

Stream 1:

vi. Final reported STR profile with the signatures and printed names of both the DNA Analyst/Reporting Scientist and the dates for both signatures. A GeneMapper® ID allele table is an appropriate form of documentation.
vii. DNA Quantification results (e.g. Quantifiler® Duo, Quantifiler® Trio, Plexor® assay spreadsheets for the autosomal DNA extraction yields).

Stream 2:

viii. Final reported mitochondrial DNA haplotype and sequence ranges. This may be in the form of a Sequencher™ variance table and must include signatures and printed names of both the DNA Analyst/Reporting Scientist and the Technical Reviewer, if applicable, and dates for each signature.
ix. DNA Quantification results (e.g., an agarose gel photo or Agilent print-outs for mitochondrial DNA amplifications).

b) The Contractor must return by courier (shipping charges Contractor's responsibility) all biological samples and DNA extracts to the NDDB and:
   i. No sample, portion of sample or DNA extract obtained from the tested sample may be retained by the Contracting Laboratory.
   ii. Samples and DNA extracts may not be used for research or any other testing procedures other than that which was directed by the NDDB.
   iii. Original sample, bone powder, archival cuttings, and DNA extracts must be returned to the NDDB upon completion of testing.
   iv. No DNA data developed from the test sample is to be retained by the Contracting Laboratory nor is any DNA data from the test sample to be stored in any data base maintained and/or utilized by the Contracting Laboratory.
   v. No personal information from the test samples is to be retained by the Contracting Laboratory.

6. CONSTRAINTS

6.1 LOCATION OF WORK AND TRAVEL REQUIREMENT

The Contractor must conduct the services in the laboratory in accordance with their written and validated procedures.

6.2 LANGUAGE OF WORK

The Contractor must prepare deliverables in English.

6.3 REVIEW AND MEETINGS

6.3.1 Kick off Meeting

a) The Kick off meeting will be held with the Contracting Laboratory within one (1) month after Contract award. The meeting will be held at the Contracting Laboratory's location or via telephone/videoconferencing and will include the following activities:

i. Review and confirm the service request process;
ii. Review and confirm format for annual audits and determine preliminary dates;
iii. Review and confirm administrative and contractual (TA) procedures;
iv. Review and confirm format of deliverable items.

6.3.2 Special Issues Meetings

a) Special Issues Meetings will be convened when requested to discuss a particular operational, administrative, or contractual problem. The meeting can be requested at any time by the Contracting Authority, Technical Authority, or the Contracting Laboratory and will be held in the National Capital Region or at an alternate location or by telephone/video conferencing if authorized by the Technical Authority. Agendas for these meetings will vary according to the reason for the meeting and will be made available by the requestor of the meeting (to all parties), at least five (5) working days before the meeting.

b) The Contracting Laboratory must produce the minutes to these meetings within five (5) working days after the completion of the meeting. The minutes must contain the names of the attendees, all items discussed, decisions made, action items, and deadlines. The minutes will be reviewed by Canada. Any required changes will be discussed between Canada and the Contracting Laboratory. Upon acceptance by Canada, the accepted final version will be distributed to all parties.

6.3.3 Annual Audits

a) The Technical Authority has the mandate to ensure that DNA profile development or biological sample preparation services performed for the NDDB are conducted to a high quality standard. As the Contracting Laboratory is performing DNA profile development or biological sample preparation for the NDDB to assist police agencies, coroner's and medical examiner's offices in the investigation of missing persons and found human remains, the Contracting Laboratory will be subject to annual audits by the NDDB.

b) An annual audit as a minimum will confirm the technical ability of the Contracting Laboratory to conduct the work, including:
i. Confirmation of the maintenance of their accreditation as a Forensic Biology/DNA Laboratory
ii. Review of work files;
iii. Review of the QA Manual;
iv. Review of the Training Manual;
v. Review of the training records for new individuals conducting DNA analysis as part of the contract;
vi. Inspection of the Facilities;
vii. Inspection of the Equipment;
viii. Review of any new validation documentation and associated training records of the individuals using the new procedure;
ix. Review of all external audit reports, to include corrective actions;
x. Review of all internal audit reports, to include corrective actions; and
xi. Review of all quality issue reports.

c) At least ten (10) working days prior to the start of the Audit, the Contracting Laboratory must provide to the Technical Authority any documentation requested. The Technical Authority and/or Contracting Authority will issue a written notice to the Contracting Laboratory, at least one (1) month in advance of the audit. The exact dates of the audit will be determined at that time. The duration of most audits will vary between one (1) and two (2) days.

d) Upon completion of the Audit, the Contracting Laboratory will be provided five (5) working days to review the draft audit report and request clarification as to the content.

e) The Contracting Laboratory must provide a written response as to how it intends to rectify all of the issues identified in the Final Audit Report to both the Contracting Authority and the Technical Authority within fourteen (14) working days. The Contracting Laboratory must provide a written response to both the Contracting Authority and the Technical Authority within thirty (30) working days detailing how all the issues have been rectified.

f) Depending on the results of the Audit the following action may be taken by Canada:

Audit Results	**Action by Canada**
No Non-conformity:	None taken
Minor Non-conformity: Non-fulfillment of an accreditation requirement, such as: Outdated organizational charts; Typographical errors in forensic reports; lack of initials and/or dates on paperwork in work files; no recording of lot numbers in work notes.	The Contracting Laboratory will be given one (1) month from the date the final Audit Report is issued to rectify the non-conformities. The Contracting Laboratory will still be eligible to receive TAs.
Moderate Non-conformity: One or a series of non-conformities for which documentation can provide confidence in the effectiveness of their resolution, such as: -issuing of a forensic report with incorrect exhibit identifier or descriptions	The Contracting Laboratory will be given one (1) month from the date of the Final Audit Report is issued to rectify the non-conformities. The Contracting Laboratory may still be eligible to receive TAs. Canada may suspend the Contracting Laboratory's from providing services for a period of three (3) months or until such time as the issues are resolved, whichever is greater.

Audit Results	Action by Canada
Serious Non-conformity: One or a series of non-conformities for which documentation alone cannot provide confidence in the effectiveness of their resolution, such as: - examinations conducted by individuals not properly qualified; - several undocumented management system procedures, but the practices are generally suitable; - some key procedures or processes not implemented such that assessors cannot state with confidence that the laboratory is able to produce competent test results; or - use of procedures not approved by the NDDB.	The services provided by Contracting Laboratory will be suspended for a period of six (6) months or until such time as the issues are resolved, whichever is greater. If the issues are not resolved within one (1) year then the Contract will be terminated. Prior to the suspension being lifted, the next annual audit will be conducted (as planned) to determine if the issues are resolved.
Critical Non-conformities: One or a series of non-conformities that affect test/calibration results or that render the management system ineffective. Their complete resolution will require considerably more time than a Standards Council of Canada (SCC) assessment visit process allows such as: several key procedures or processes not implemented; general lack of monitoring critical management system elements; lack of resources (equipment, staff) to conduct test(s); evidence that test results have been compromised.	The Contract will be terminated.

6.3.4 Special Audits

a) The Contracting Laboratory may request that NDDB conduct a Special Audit prior to the next planned Annual Audit if the eligibility status of the Contracting Laboratory was suspended as a result of the last Annual audit due to Serious Non-Conformity or Critical Non-Conformity Issues. If NDDB authorizes a Special Audit, the Contracting Laboratory must pay for all Travel & Living Expenses for the Audit Team. The Audit Team will include a representative from PSPC.

b) A Special Audit will be conducted in accordance with an Annual Audit and is not limited to the issues related to the last Annual Audit.

c) At least ten (10) working days prior to the start of the Special Audit, the Contracting Laboratory must provide to the Technical Authority any documentation requested. The Technical Authority and/or Contracting Authority will issue a written notice to the Contracting Laboratory, at least one (1) month in advance of the audit. The exact dates of the audit will be determined at that time. The duration of most audits will vary between one (1) and (2) days.

6.3.5 Alternative Dispute Resolution

a) If the Contracting Laboratory does not agree with a Final Audit Report, the Contracting Laboratory may submit a written request to both the Contracting Authority and Technical Authority to have an authorized 3rd Party Auditor conduct an Audit of the Contracting Laboratory. This request must be sent within five (5) working days after the date of the Final Audit Report is issued.

b) The Contracting Laboratory will be responsible for all costs related to the 3rd Party Audit. The Audit conducted by the 3rd Party Auditor must be conducted in accordance with the Contract.

c) All actions taken by Canada (as identified above) will still be enforced, with the exception of the actions taken by Canada as a result of Critical Non-conformities, where the eligibility status will instead be suspended pending the final outcome of the 3rd Party Audit.

d) The 3rd Party Audit must take place within ninety (90) calendar days after the date of the Final Audit Report is issued.

The only acceptable 3rd Party Auditors are either the Centre of Forensic Sciences, Toronto, Ontario or the Laboratoire de sciences judiciaires et de médicine légale, Montréal, Quebec. The 3rd Party Auditors must use their own qualified DNA analysts, including their DNA technical leader and quality management personnel.

6.3.6 External Accreditation Audits

a) The Contracting Laboratory must maintain its accreditation as a Forensic Testing Laboratory in the discipline of Forensic Biology/DNA from SCC or an equivalent accrediting agency to ISO/IEC 17025 (2005) International Standards.

b) The Contracting Laboratory is to provide the Contracting Authority and the Technical Authority with a copy of any SCC Audit (or equivalent) within five (5) working days.

c) The Contracting Laboratory is to ensure the Technical Authority has a copy of their valid SCC Certificate (or equivalent).

6.3.7 DNA Typing Service

a) Approval to conduct DNA analysis for inclusion of DNA profiles in the three (3) humanitarian DNA indices of the NDDB does not authorize a Contracting Laboratory to conduct similar DNA analysis for criminal purposes for inclusion of DNA profiles in the Crime Scene Index, the Victims Index or the Voluntary Donors Index of the NDDB.

b) The Contracting Laboratory must safeguard all known reference samples, personal effects, and human remains samples, including all associated personal and genetic information and ensure the return of these materials to the NDDB upon completion of the analysis requested.

6.4 TRAINING PROGRAM

a) As a minimum, the Contracting Laboratory must have a documented Training Program for qualifying DNA Analysts/Reporting Scientists and Technologists.

b) The laboratory Training Program must have a training manual that covers all the analytical procedures that the resource will perform. The number of samples to be processed or the number of practical exercises to be completed must be documented and they are to include a range of samples routinely encountered in database work or forensic casework. A minimum of fifty (50) samples are to be processed.

c) The training program must teach and assess the technical skills and knowledge required to perform sample preparation and/or DNA analysis. The criteria to successfully pass a training requirement must be documented.

d) The training program must require the resource to demonstrate their competency through the completion of a written and/or oral examination and a practical/qualifying test. The laboratory must maintain an up-to-date training record for each resource.

e) At the completion of this Training Program, the resource must successfully pass an all-encompassing competency test relevant to his/her job description. This test must represent a mock case using samples representative of the samples the resource will be analyzing on the job. The resource must prepare full documentation of the analysis in the form of the laboratory's standard case format.

6.5 QUALITY ASSURANCE

6.5.2 General

a) The National DNA Data Bank conforms to the requirements of ISO/IEC 17025 and is recognized as an accredited testing laboratory for specific tests listed in the scope of accreditation approved by the Standards Council of Canada.

b) The Contracting Laboratory must also be accredited as a Forensic Biology/DNA Testing Laboratory by Standards Council of Canada (SCC), or by an equivalent accrediting organization, to ISO17025 (2005) international standards.

c) The Contracting Laboratory is not permitted to subcontract work to another laboratory.

d) Each Contracting Laboratory will be required to undergo a successful technical audit of their program and facilities to assess their eligibility to provide DNA services for the purposes of the NMPDP. Furthermore, an approved Contracting Laboratory will be required to undergo annual technical audits to maintain their eligibility status. This technical audit will be conducted by qualified individuals representing the NDDB. Additionally, all analytical work and DNA results will be technically reviewed by the NDDB prior to the acceptance and uploading of DNA profiles to the appropriate humanitarian DNA index of the NDDB.

6.5.3 Acceptance of DNA Records from a Contracting Laboratory

The NDDB DNA Data Acceptance Standard, SCC Requirements and Guidance for the Accreditation for Forensic Testing Laboratories, Appendix 3 – Biology, and the Federal Bureau of Investigation "Quality Assurance Standards for Forensic DNA Testing Laboratories specifically outlines the standards that must be met when a CODIS participating laboratory outsources Forensic DNA analysis to a Contracting Laboratory to generate DNA data that will be entered into or searched in CODIS. These documents clearly state that:

a) The Contracting Laboratory must be accredited as a Forensic Biology/DNA Testing Laboratory;
b) All DNA records provided by the Contracting Laboratory must receive an appropriate technical review to verify the integrity of the data received before entry into CODIS; and
c) That an onsite audit of the Contracting Laboratory be conducted prior to the acceptance of any DNA profiles for entry into CODIS.

6.5.4 Quality Assurance Standards

As a minimum, the Contractor's laboratory must provide the services to implement the following Quality Assurance Standards:

i. Establish and maintain a documented and accredited quality system that is appropriate to what is being tested;
ii. Always maintain physical separation of known reference samples, personal effects and soft and hard samples during processing;
iii. Avoid cross contamination of samples (known reference samples/personal effects and soft and hard tissue samples from one case to another);
iv. Have and follow a documented sample control system to ensure the integrity of physical evidence;
v. Samples move in only one direction in the laboratory;
vi. Technologists move from stage to stage of the DNA analysis process in only one direction avoiding the need to go back to a previous stage;
vii. Where possible, a portion of the biological sample or DNA extract is returned to the NDDB;
viii. Use validated methods and procedures for the DNA analysis of missing person samples, family reference samples and human remain samples.
ix. Have and follow a procedure for evaluating the quantity of human DNA in non-reference biological samples.
x. Monitor the analytical procedures using controls and standards, appropriate to DNA analysis and the monitoring of contamination;
xi. Check DNA procedures annually, or whenever substantial changes are made to the protocol(s), against an appropriate and available National Institute of Standards Technology (NIST) standard reference;
xii. Have and follow validated and written general guidelines for the interpretation of data. These guidelines must be approved by the DNA Technical Leader of the Contracting Laboratory;
xiii. Have a documented program, (based on the manufacturer's program), for calibration of instruments and equipment; and
xiv. All equipment and procedures must be validated and documented for use by the DNA Technical Leader of the Contracting Laboratory; and
xv. All DNA profiles submitted to the NDDB by the Contracting Laboratory must be compared to the Contracting Laboratory's staff DNA database.

6.6 PRIVACY

6.6.1 Data Security Program

The Contracting Laboratory must have a data privacy and security program in place and operational. The program must include physical, technical, administrative, and organizational measures designed to:

i. Ensure the security and confidentiality of Personal Information and Records;
ii. Restrict access to Personal Information and Records on a need to know basis only;
iii. Restrict the use and disclosure of Personal Information and Records;
iv. Ensure the proper retention and disposal or Personal Information and Records,
v. Ensure that employees, agents, and subcontractors of the Contracting Laboratory comply with the above.

6.6.2 Threat and Risk Assessment

The Contracting Laboratory should undertake a threat and risk assessment of its facilities and program and share the results of that risk assessment with the Project Authority.

6.6.3 Statutory Obligations for Privacy

The Contracting Laboratory must comply with requirements established by the Authorized Agency of Canada, as reasonably required, to ensure that Canada meets its obligations for the proper handling of Personal Information and Records in accordance with the provisions of the *DNA Identification Act*, S.C. 1998, c. 37, *Privacy Ac*t R.S.C. , 1985, c. P-21, *Access to Information Act*, R.S. 1985, c. A-1, *Library and Archives of Canada Act*, S.C. 2004, c.11, and any other federal, provincial or territorial legislation in effect from time to time.

6.7 VALIDATION

a) The Contracting Laboratory must use validated methodologies for all DNA analysis procedures.

b) Internal validation of all DNA procedures must be reviewed and approved by the DNA Technical Leader of the Contracting Laboratory prior to using a procedure for use on missing persons, relatives of missing persons or found human remains samples.

6.8 PROCEDURES

a) The Contracting Laboratory must have and follow written and validated analytical procedures approved by their DNA Technical Leader.

b) The Contracting Laboratory must have and follow a standard operating procedure for each analytical method used by the laboratory. The procedures must specify reagents, sample preparation, extraction methods, equipment, and controls which are standard for DNA analysis, and data interpretation.

c) The Contracting Laboratory must identify critical reagents and evaluate them prior to use in biological sample analysis. These critical reagents must include but are not limited to the following:

i. Test kits or systems for performing quantitative PCR and genetic typing; and
ii. Thermostable DNA polymerase, primer sets and allelic ladders used for genetic analysis that are not tested as test kit components under (i) above.

d) The Contracting Laboratory must quantify the amount of human DNA in biological samples prior to autosomal DNA amplification for non-reference biological samples. Quantitation of human DNA is not required for known reference samples if the laboratory has a validated system that has been demonstrated to reproducibly and reliably yield successful DNA amplification and typing without prior quantitation.

e) The Contracting Laboratory must monitor the analytical procedures using the following controls and standards:

i. Where quantitation is used, quantitation standards must be used.

ii. Positive and negative amplification controls associated with samples being analyzed must be amplified concurrently with the samples at all markers and with the same primers as the forensic samples. All samples typed must also have the corresponding amplification controls typed.

iii. Reagent blank controls associated with samples being analyzed must be:

a. Extracted concurrently with the forensic sample(s) and amplified if human DNA is detected in the extract;

b. If human DNA has been detected, the reagent blank controls are analyzed utilizing the same instrument model and volume conditions consistent with the forensic sample(s) and amplified utilizing the same primer, instrument model and concentration conditions as required by the forensic sample(s) containing the least amount of DNA;

iv. The Contracting Laboratory must check its DNA procedures annually or whenever substantial changes are made to the protocol(s) against an appropriate and available NIST standard reference material or standard traceable to a NIST standard.

v. The Contracting laboratory must have and follow written guidelines for the interpretation of data.

a. The laboratory must verify that all control results meet the laboratory's interpretation guidelines for all reported results.

b. In the event that a mixed DNA typing profile is obtained, the laboratory must have and follow a documented procedure for mixture interpretation that addresses major and minor contributors.

vi. The Contracting Laboratory must have and follow a policy to document incidents of contamination and its remediation efforts.

vii. The Contracting Laboratory must have and follow a policy to compare any DNA profiles to their staff member DNA database prior to submitting them to the NDDB for technical review.

f) Implementation of New or Modified Procedures

i. In the event that the Contractor should validate a new analytical procedure or modify an existing procedure, the new or modified procedure must be reviewed and approved by the NDDB prior to these procedures being used on samples submitted for the NMPDP.

6.9 PROFICIENCY TESTING

DNA Analysts/Reporting Scientists and DNA Technologists must be part of a proficiency test program and undergo semi-annual internal and/or external proficiency testing in each technology performed to the full extent in which they participate in casework.

7. RESOURCES

The Laboratory must, at a minimum, have two qualified resources to perform each of the following positions. The resources may perform more than one position provided they meet the technical requirements outlined for each position:

a) A DNA Technical Leader;

b) DNA Analysts (Reporting Scientists);

c) DNA Technologist;

d) One Laboratory Quality Manager;

e) Laboratory Manager;

f) Information Officer

7.1 DNA Technical Leader

a) This individual must be a full time resource who is accountable for the technical operations of the sample preparation, the DNA analysis and interpretation, the DNA technology utilized by the laboratory and is authorized to initiate, stop, suspend or resume laboratory operations.

b) This individual must be accessible to the laboratory to provide onsite, telephone or electronic consultation as required.

c) This individual must approve all validation and DNA technology utilized by the Contracting Laboratory.

d) This person must review and approve training, quality assurance and proficiency testing programs in the laboratory.

e) In the event that the technical leader position of the laboratory is vacated and there is no individual in the laboratory who meets the requirements of this position then the laboratory shall immediately contact the NDDB and submit their contingency plan within fourteen (14) days to the NDDB for its approval. Work in progress by the laboratory may be completed during the fourteen (14) day period but new casework must not be started until the plan is approved by the NDDB

Qualifications:

i. The DNA Technical Leader must have at minimum a Masters degree in one of the following areas: biology, chemistry or a forensic science related area or equivalent;
ii. Minimum of 3 years of human forensic DNA laboratory experience in nuclear, Y-STR or mitochondrial DNA analysis that was obtained at a laboratory where forensic DNA testing was conducted for the identification and evaluation of biological evidence in criminal or missing persons and found human remains investigations.
iii. Must have completed a training program that includes a competency test that meets the requirements detailed in Section 6.4 Training Program.

7.2 DNA Analyst (also known as a Reporting Scientist)

A DNA Analyst (Reporting Scientist) is an employee of the company and is responsible for the following tasks:

a) Conducting and/or directing the DNA analysis of biological samples;
b) Interpreting single source and mixed DNA typing profiles;

Qualifications:

i. The DNA Analyst (Reporting Scientist) must have at minimum a four year bachelor's degree in one of the following areas: biology, chemistry or a forensic science related area;
ii. Must have performed human nuclear STR, Y-STR or mitochondrial DNA analysis on biological samples on a minimum of 20 cases since January 1, 2014. For each case/exhibit examination a laboratory report must have been delivered. As a minimum, the work completed must have included human nuclear STR, Y-STR and /or mitochondrial DNA analysis on the following: blood, saliva, hair, bone, teeth or muscle;
iii. Must have completed a training program that includes a competency test that meets the requirements detailed in Section 6.4 Training Program.

7.3 DNA Technologist

A DNA Technologist is an employee of the laboratory who is responsible for the following tasks, if applicable for the technology utilized:

a) Extraction of DNA from biological samples.
b) DNA quantitation of non-reference samples
c) Performing the analytical techniques for the required DNA analysis.

Qualifications:

i. The DNA Technologist must have at minimum a three year college diploma in one of the following areas: biology, chemistry or a forensic science related area from a recognized college;

ii. Must have performed human nuclear STR, Y-STR or mitochondrial DNA analysis on biological samples on a minimum of 20 cases since January 1, 2014. The individual must have completed cases that required the extraction of DNA from biological samples* (blood, saliva, hair, bone, teeth or muscle), DNA quantitation*, DNA amplification of nuclear STRs/Y-STRs/mitochondrial DNA, and resolution of DNA profiles/DNA sequences using capillary electrophoresis;

iii. Must have completed a training program that includes a competency test that meets the requirements detailed in Section 6.4 Training Program.

7.4 Quality Manager

The Quality Manager is responsible for the quality assurance programs and policies at the Laboratory in accordance with section 6.5 Quality Assurance.

Qualifications:

The Quality Manager must have at minimum a College Diploma or University Undergraduate Degree in one of the following areas: Biology, Biochemistry, Biochemical Technology, Medical Laboratory Technology (or the equivalent as established by a recognized Canadian academic credentials assessment service, if obtained outside Canada).

7.5 Laboratory Manager

The Laboratory Manager is accountable for the management of the laboratory system.

7.6 Information Officer

The information officer is responsible and accountable for privacy and the protection of personal information in accordance with Section 6.6 Privacy.

8.0 FACILITIES

a) As a minimum, the Contracting Laboratory must be controllable and limited in the following manner:

i. **Reception Zone:** It is from this point that further access to the laboratory is controlled. It can be staffed by a receptionist, or be a telephone to call staff inside its laboratory. Persons beyond this point must be approved. All approved visitors must wear a visible badge, or be otherwise identified.

ii. **Common Operation Zone**: These areas have general circulation of staff and approved visitors, and are commonly accessible only through the reception zone. (Such zones may include: Office Area, Exhibit Reception Room, Washrooms, General Utility, Receiving and Shipping Areas, hallways, and Lunchroom).

iii. **Controlled Zones:** These areas are the laboratories and rooms in which biological sample processing is conducted and must be restricted to only those staff who are authorized to work in that area, and approved visitors. Access to the area must be recorded and monitored at all times in the quiet hours by appropriate technical means. Such zones include the general examination areas and laboratories, instrument rooms, and rooms containing the individual exhibit storage lockers.

b) The Contracting Laboratory facilities must include:

i. **Biological Sample Preparation room**:

a. There must be at least one room available for the examination/preparation of biological material for DNA analysis. The work surface of the search/preparation tables must be made of non-absorbent material that can be thoroughly cleaned of any potential contaminants.

b. A dedicated room that is restricted for the preparation of bone and/or teeth samples for DNA extraction is required.

ii. **DNA analysis rooms**:

a. Except if a robotic workstation is used by the laboratory, techniques performed prior to PCR amplification such as item examination, DNA extractions, and PCR setup must be conducted at separate times or in separate spaces from each other.

b. Except if a robotic workstation is used by the laboratory, amplified DNA product, including real time PCR, must be generated, processed and maintained in a room(s) separate from item examination, DNA extractions and PCR setup areas. The doors between rooms containing amplified DNA and other areas must remain closed except when used for passage into and out of the room.

c. A robotic workstation may be used to carry out DNA extraction, quantitation and PCR setup in a single room, provided that the analytical process has been validated. If the robotic workstation performs analysis through amplification, the robotic workstation must be located in a separate room from that used for initial item examination.

iii. **Biological sample storage rooms**:

a. Such rooms must be secure and there is to be limited, controlled access.

b. Storage conditions must be such as to prevent loss, deterioration and contamination and to maintain the integrity and identity of the exhibits.

c. The laboratory must have and follow written procedures for monitoring, cleaning and decontaminating facilities and equipment which minimizes/prevents contamination of the exhibit material.

APPENDIX 1

Autosomal STR Accepted by the NDDB

Locus	Chromosome Location	CODIS[1]
CSF1PO	5q33.3-34	**Required**
FGA	4q28	**Required**
TH01	11p15-15.5	**Required**
TPOX	2p23-2pter	**Required**
vWA	12p12-pter	**Required**
D3S1358	3p	**Required**
D5S818	5q21-q31	**Required**
D7S820	7q	**Required**
D8S1179	8	**Required**
D13S317	13q22-q31	**Required**
D16S539	16q22-24	**Required**
D18S51	18q21.3	**Required**
D21S11	21	**Required**
Amelogenin	X:p22.1-22.3 Y:p11.2	**Required**
D2S1338	2q35-37.1	Accepted
D19S433	19q12-13.1	Accepted
Penta D	21q	Accepted
Penta E	15q	Accepted
D1S1656	1q42	Accepted
D2S441	2p14	Accepted
D10S1248	10q26.3	Accepted
D12S391	12	Accepted
D22S1045	22q12.3	Accepted
SE33	6q14	Accepted

The CODIS Core Loci are those listed above as ‘Required’ and the samples must be characterized by the Contracting Laboratory at these required locations. The loci listed as ‘Accepted’ may be characterized by the Contracting Laboratory and the information will be accepted for review by the NDDB.

APPENDIX 2

YSTRs Accepted by the NDDB	
Locus	**CODIS**
DYS19	Accepted
DYS385	Accepted
DYS389 I	Accepted
DYS389 II	Accepted
DYS390	Accepted
DYS391	Accepted
DYS392	Accepted
DYS393	Accepted
DYS438	Accepted
DYS437	Accepted
DYS439	Accepted
DYS448	Accepted
DYS456	Accepted
DYS458	Accepted
DYS481	Accepted
DYS533	Accepted
DYS549	Accepted
DYS570	Accepted
DYS576	Accepted
DYS635	Accepted
DYS643	Accepted
YGATAH4	Accepted
Y-Indel	Accepted

APPENDIX 3

MtDNA Regions	**CODIS**
HV1	16,024 - 16,365
HV2	73 - 340

ANNEX B, BASIS OF PAYMENT

1. During the period of the Contract, for Work performed in accordance with the Contract, the Contractor will be paid as specified below. All prices below must include all Services identified in the Statement of Work.

1.1 During the initial contract period, the Contractor will be paid all inclusive firm unit price (inclusive of return shipping charges) per assessment as follows:

Initial Contract Period – Stream 1: DNA Profile Development Services	
Services	**Firm unit price**
1.1.1.1 Service 1 - DNA Profile Development Services: Personal Effects/Reference Samples/Biological Samples:	
1.1.1.1.1 Autosomal STRs (sample preparation, DNA extraction & quantification, profile development)	$
1.1.1.1.2 Y-STR (profile development)	$
1.1.1.2 Service 2 - Hard Tissue Services: Bone and Teeth:	
1.1.1.2.1 Preparation of sample for DNA extraction	$
1.1.1.2.2 Autosomal STRs (DNA extraction, DNA quantification, profile development)	$
1.1.1.2.3 Y-STR (profile development)	$

Initial Contract Period - Stream 2: Mitochondrial DNA Services	
Services	**Firm unit price**
1.1.2.1 Personal effects/biological samples/family reference sample – sample preparation, DNA extraction & quantification	$
1.1.2.2 Hard tissue sample- sample preparation, DNA extraction & quantification	$
1.1.2.3 Mitochondrial DNA sequencing analysis	$

1.2 During the extended periods of the Contract, the Contractor will be paid all inclusive firm unit price (inclusive of return shipping charges) per assessment as follow:

Option Periods – Stream 1: DNA Profile Development				
Services	**Firm unit price**			
	Option Period 1	**Option Period 2**	**Option Period 3**	**Option Period 4**
1.2.1.1 Service1 –DNA Profile Development: Personal Effects/Reference Samples/Biological Samples				
1.2.1.1.1 Autosomal STRs (sample preparation, DNA extraction & quantification, profile development)	$	$	$	$

1.2.1.1.2 Y-STR (profile development)	$	$	$	$
1.2.1.2 Service 2 – Hard Tissue Services: Bone and Teeth				
1.2.1.2.1 Preparation of sample for DNA extraction	$	$	$	$
1.2.1.2.2 Autosomal STRs (DNA extraction, DNA quantification, profile development	$	$	$	$
1.2.1.2.3 Y-STR (profile development)	$	$	$	$

Option Periods- Stream 2: Mitochondrial DNA Services				
Services	**Firm unit price**			
	Option Period 1	**Option Period 2**	**Option Period 3**	**Option Period 4**
1.2.2.1 Personal effects/biological samples/family reference sample – sample preparation, DNA extraction & quantification	$	$	$	$
1.2.2.2 Hard tissue sample- sample preparation, DNA extraction & quantification	$	$	$	$
1.2.2.3 Mitochondrial DNA sequencing analysis	$	$	$	$

ANNEX C, SECURITY REQUIREMENTS CHECK LIST

See attachment Annex C – SRCL

ANNEX D, RCMP SECURITY GUIDE

See attachment Annex D – RCMP Security Guide

ANNEX E, INSURANCE REQUIREMENTS

G2001C Commercial General Liability Insurance

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than $2,000,000 per accident or occurrence and in the annual aggregate.

2. The Commercial General Liability policy must include the following:

    a. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.

    b. Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.

    c. Products and Completed Operations: Coverage for bodily injury or property damage arising out of goods or products manufactured, sold, handled, or distributed by the Contractor and/or arising out of operations that have been completed by the Contractor.

    d. Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.

    e. Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.

    f. Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.

    g. Employees and, if applicable, Volunteers must be included as Additional Insured.

    h. Employers' Liability (or confirmation that all employees are covered by Worker's compensation (WSIB) or similar program)

    i. Broad Form Property Damage including Completed Operations: Expands the Property Damage coverage to include certain losses that would otherwise be excluded by the standard care, custody or control exclusion found in a standard policy.

    j. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.

    k. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
    l. Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.

m. Litigation Rights: Pursuant to subsection 5(d) of the *Department of Justice Act*, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the province of Quebec, send to:

Director Business Law Directorate,
Quebec Regional Office (Ottawa),
Department of Justice,
284 Wellington Street, Room SAT-6042,
Ottawa, Ontario, K1A 0H8

For other provinces and territories, send to:

Senior General Counsel,
Civil Litigation Section,
Department of Justice
234 Wellington Street, East Tower
Ottawa, Ontario K1A 0H8

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

G2002C Errors and Omissions Liability Insurance

1. The Contractor must obtain Errors and Omissions Liability (a.k.a. Professional Liability) insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature but for not less than $1,000,000 per loss and in the annual aggregate, inclusive of defence costs.

2. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.

3. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of cancellation.

ANNEX F, TASK AUTHORIZATION FORM

See attached PDF Form – Task Authorization Form

ANNEX G, PERIODIC USAGE REPORTS SPREADSHEET

See attached Excel document – Periodic Usage Reports Spreadsheet

ANNEX H, NON DISCLOSURE AGREEMENT

I, _____ , recognize that in the course of my work as an employee or subcontractor of _____ , I may be given access to information by or on behalf of Canada in connection with the Work, pursuant to Contract Serial No. _____ between Her Majesty the Queen in right of Canada, represented by the Minister of Public Works and Government Services and _____ , including any information that is confidential or proprietary to third parties, and information conceived, developed or produced by the Contractor as part of the Work. For the purposes of this agreement, information includes but not limited to: any documents, instructions, guidelines, data, material, advice or any other information whether received orally, in printed form, recorded electronically, or otherwise and whether or not labeled as proprietary or sensitive, that is disclosed to a person or that a person becomes aware of during the performance of the Contract.

I agree that I will not reproduce, copy, use, divulge, release or disclose, in whole or in part, in whatever way or form any information described above to any person other than a person employed by Canada on a need to know basis. I undertake to safeguard the same and take all necessary and appropriate measures, including those set out in any written or oral instructions issued by Canada, to prevent the disclosure of or access to such information in contravention of this agreement.

I also acknowledge that any information provided to the Contractor by or on behalf of Canada must be used solely for the purpose of the Contract and must remain the property of Canada or a third party, as the case may be.

I agree that the obligation of this agreement will survive the completion of the Contract Serial No.:
_____

_____

Signature

_____

Date