



CENTRAL BANK OF
TRINIDAD & TOBAGO



EXPRESSION OF INTEREST FOR THE PROVISION OF CONSTRUCTION SERVICES FOR THE REFURBISHMENT/UPGRADING OF THE MONEY MUSEUM FOR THE CENTRAL BANK OF TRINIDAD AND TOBAGO

The Central Bank of Trinidad and Tobago invites Contractors to submit an **Expression of Interest (EOI)** to provide Construction Services for the Refurbishment/Upgrading of its Money Museum located on the Ground Floor of the Bank.

Full details of the EOI may be obtained from the Reception Desk at the Central Bank Eric Williams Plaza, Independence Square, Port of Spain, between the hours of 8:30 a.m. and 11:30 a.m. from Thursday March 09 to Wednesday March 15, 2017. **Interested Contractors may also access full details of the EOI on the Bank's Website: www.central-bank.org.tt.**

Responses to this EOI must be placed in the Tender Box located on the Ground Floor located at the Central Bank of Trinidad and Tobago, Eric Williams Plaza, Port of Spain, between the hours of 8:00 a.m. to 4:00 p.m. and submitted no later than 1:00 p.m. on March 27, 2017. Commencement of services is anticipated to be **June 01, 2017.**

The Bank reserves the right to cancel the request for this EOI at any time without defraying of any costs incurred by any company in response to this EOI.



CENTRAL BANK OF
TRINIDAD & TOBAGO

EXPRESSION OF INTEREST CONTRACTORS

The Central Bank of Trinidad and Tobago invites Contractors to submit an **Expression of Interest (EOI)** to provide Construction Services for the Refurbishment/Upgrading of its Money Museum located on the Ground Floor of the Bank. **Submissions should** include the following documents:

- A brief history/profile of the company or firm including Organisation Structure, Key Personnel, Financial Performance, Capacity and available Plant and Equipment.
- Proof of ability to finance and construct building works up to Five Million Trinidad and Tobago Dollars (TT\$5M).
- Proven work experience in the construction/refurbishment of Buildings of High Quality and Importance in the Value Range Specified.
- Evidence of strong Occupational Health and Safety Management.
- Evidence of having Workmen's' Compensation and Public Liability Insurance.
- Registration details of the Company – Copy of the Certificate of Incorporation/Continuance.
- VAT Registration Certificate.
- Copy of BIR Clearance Certificate.
- Copy of NIS Compliance Certificate.
- Four (4) recent client references for similar works complete with names and telephone numbers of referees.
- Bank References demonstrating capability to finance works in the Value Range Specified.

Shortlisted firms may be subsequently invited to prequalify and tender for services; Commencement of services is anticipated to be **June 01, 2017**.

Instructions to Respondents:

1. Your EOI should be submitted in one sealed envelope addressed and labeled as follows:

Secretary of the Tenders Evaluation Committee
Central Bank of Trinidad and Tobago
Eric Williams Plaza
Independence Square
Port of Spain
Tel: (868)625-4835
Fax: (868)627-4696
Email: TendersEvaluationCommittee@central-bank.org.tt

**“EXPRESSION OF INTEREST -
REFURBISHMENT/UPGRADE OF A MONEY MUSEUM
FOR THE CENTRAL BANK OF TRINIDAD AND TOBAGO”**

The name of the Responder should be clearly marked on this envelope. All envelopes are to be placed in the brown Tender Box located at the ground floor, Central Bank of Trinidad and Tobago, Eric Williams Plaza, Independence Square, Port of Spain.

2. The envelope in 1 above should contain two (2) separate sealed envelopes clearly marked as follows:
- (i) The Expression of Interest
 - (ii) Certificates

The “Certificates” envelope must contain the following:

- A) Income Tax Clearance Certificate in the name of the organization submitting the Expression of Interest,
- B) VAT Registration Certificate in the name of the organization submitting the Expression of Interest,
- C) VAT Clearance Certificate in the name of the organization submitting the Expression of Interest,
- D) National Insurance Board of Trinidad and Tobago Certificate of Compliance in the name of the organization submitting the Expression of Interest.

All of these must be valid as at the date of the opening.

Certificates issued in a name other than that used to indicate interest would result in the rejection of the Expression of Interest.

Please be advised that the Central Bank’s criteria for the acceptance of Banks and Insurance Companies that provide Surety to Contractors are as follows:

- (i) With respect to Commercial Banks, bonds would be accepted where shareholders equity is at least TT\$100 Million Dollars.
- (ii) For Insurance Companies, paid up capital plus free reserves must be at least TT\$30 Million and certification by the Inspector of Financial Institutions approving the Company’s capacity to issue the bond and that the requisite re-insurance is in place, is required.

Responders may be required to attend an interview to demonstrate their ability to provide the services required.

Late Proposals

Expressions of Interest received after the Closing Time and Date specified will not be considered. Any late EOI shall be returned unopened to the submitting firm. Late submissions will not be accepted in any circumstances. Further note that:

- (i) The costs of preparing an EOI for the captioned project is not reimbursable; and
- (ii) The Bank is not bound to accept any EOI submitted.

Responsibilities of the Firm Responding

It is the responsibility of the Responder before submitting an EOI to:

- Examine thoroughly this Invitation;
- Ensure that it can meet all conditions that may affect cost, progress and performance of the Services;
- Consider local laws and regulations that may affect cost, progress and performance of the services and implementation of the project;
- Study and carefully correlate the Respondent's Skills and Competencies with the Expression of Interest for the proposed works.

Failure to Provide Information

No allowance will be made after the submission date for any omission or error due to failure, neglect or omission to have done anything referred to in the paragraph above.

Failure to provide information that is essential in the evaluation of this EOI may result in rejection of the EOI.

Respondent's Representation

By submitting its EOI to the Bank, each Respondent represents and warrants to the Bank that the information in its EOI is accurate and complete and by presenting its response represents that it has read and understands this Request and that its EOI is presented in accordance with it.

Right to Cancel Request for Tender and to Accept Proposals

The Bank is entitled to cancel this Expression of Interest at any time by Addendum issued to the Tenderer, without liability for any loss, damage, cost or expense incurred or suffered by any Tenderer as a result of that cancellation.

Expressions of interest must be placed in the Tender Box located in the foyer of the Ground Floor, Central Bank of Trinidad and Tobago, Eric Williams Plaza, Port of Spain, between the hours of 8:00 a.m. to 4:00 p.m. **and submitted no later than 1:00 pm on 27th March, 2017.**

Types of Work Disciplines Required

1. *Mechanical Systems:* Improvements to the HVAC system will be required to ensure human comfort and maintain the required humidity and temperature levels in the permanent exhibition space. It is not anticipated that a new system will be installed, but rather improvements to the existing system to meet set standards will be required. This may include additional ducting and air flow and temperature control mechanisms. The selected contractor will be asked to carefully review the existing system and provide drawings and/or a written report on the required intervention to achieve the desired standards and performance. Performance requirements are set out in Appendix A.
2. *Lighting:* New lighting fixtures, track and wiring will be supplied and installed by the selected contractor. It must include dimming and other controls. Details of the performance requirements are contained in Appendix A. Once the exhibition is installed the contractor's lighting specialist will be required to return to the site for final adjustments to fixture placement and focusing. All lighting and fixtures to be sourced shall allow for ease of maintenance and replacement by the internal maintenance staff. Local suppliers and distributors are preferred for a long term relationship with Museum staff.
3. *Data and Electrical:* The contractor will be required to review the design and make recommendations as required as well as to test the existing electrical supply system in the Museum and recommend improvements, if necessary. In addition, the respondent's electrical team shall install any new outlets and data access to support the new exhibition and improved lighting system. Calculations for all electrical load requirements for the exhibition, programming and maintenance usage (See Appendix A) will be required. Data and/or Wi-Fi access will be required in the permanent exhibition space. The contractor shall ensure redundancy and grounding to safe guard exhibits and lighting from brown outs and spikes that can harm equipment in the Museum.
4. *Construction/Renovation:* The Contractor must have the capability to install new wall partitions (block-work, drywall and glass), flooring types, ceilings, and more as required by the Bank to meet the requirements of the Exhibition Designer. Note that all glass walls must be tempered and filmed. Instructional drawings shall be provided by the Bank to identify the location of any new walls, etc. Finishes specifications, including paint colours, carpet flooring details, etc. will be provided by the Bank's Museum Staff and Exhibition Designer. Flooring types will be identified by the Bank but is expected that the contractor will be suitably skilled in the installation of carpets, tiles, hardwood and other flooring types. Local suppliers and distributors are preferred for a long term replacement. Performance requirements are set out in Appendix A.
5. *Exhibition Media, Fabrication and Installation for the Display of Currency and Artifacts:* The contractor must have the capability to undertake the construction and installation of the required exhibition media/display cases to meet the materials and operational specifications of the Bank through its Exhibition Designer. Some of these display cases may be required to be constructed so that exhibits remain hermetically sealed in and conform to the relative humidity, temperature and lighting intensity and grade requirements. Final selection of the solution utilized for the Exhibition Media, Fabrication and Installation for the display of currency and artifacts will require the written approval of the Central Bank of Trinidad and Tobago (CBTT). Performance requirements are set out in Appendix A.

6. *Testing and Remediation:* Upon completion, the Contractor must be prepared to undertake a period of testing and remediation to correct errors and omissions and to ensure that all structural, mechanical and electrical systems are working to specification. In addition, the Contractor will be required to provide additional adjustments to the base building in order to integrate exhibition cases installation. The Contractor's payment retention shall be held for 6 months after the opening of the Museum in order to ensure that all works have been completed to the accepted standard of the Central Bank of Trinidad and Tobago.

Note:

Contractors expressing an interest in providing services should note that it is the preference of the Bank to determine a listing of contractors who possess all of the above skill-sets, to bring the project to completion in the shortest possible timeline. The Bank prefers to avoid the conflicts and liability issues associated with the use of multiple contractors operating in the same work space simultaneously.

Notwithstanding, contractors may state which elements of the following work disciplines in which they have a primary interest and whether there is interest in some or all of the disciplines.

1. Construction works including air-conditioning, electrical installation and specialized lighting.
2. Audio Visual, Data and Communication services.
3. Exhibition and installation relative to the display of currency and special artifacts.

Appendix A:

Performance Requirements (Relevant Systems and Standards)

The following section provides a summary of the environmental requirements and other standards to be maintained in the Money Museum for the preservation of artefacts and archival materials and for human comfort, based on museum professional practise. ***The selected General Contractor must adhere to these specifications or provide reasonable alternatives to meet standards where appropriate.***

The Systems and Standards are a collection of principles by which a building or renovation project may be designed. ***The general contractor hired by the Central Bank will need to address these principles in their methodology and construction work for the base building refurbishment/upgrade works.***

A.4.1 Relative Humidity and Temperature

Maintaining stable relative humidity and temperature, within acceptable ranges, is one of the key requirements for long-term preservation of museum objects, especially those made of fragile organic materials such as wood, paper, and textiles. Both active and passive ways of reducing the effects of daily and seasonal swings caused by local weather conditions can be employed in museums. Active methods include a range of heating and cooling systems up to full air conditioning systems with computer-controlled sensors and both humidification and dehumidification capabilities. Passive methods include thick, solid walled construction, natural ventilation, and the use of materials such as silica gel, which trap moisture released into the atmosphere.

The Museum must provide the capacity to control the climate in the permanent exhibition area to ASHRAE A Standard, 24 hours per day, 365 days per year. ***This is for the permanent exhibition space only. The temporary gallery spaces will continue to be controlled by general environmental conditions as utilised in the main lobby and reception spaces.***

The permanent exhibition space will require filtered supply air. Air circulation fans shall be in continuous operation and connected for operation via emergency generator in the event of a power outage.

Given Port of Spain conditions, the permanent exhibition gallery should be maintained at a relative humidity (RH) set point and standard fluctuation of **maximum** $50 \pm 3\%$ RH (47–53%) with a maximum fluctuation of $\pm 5\%$ RH (45–55%) allowed for up to 5% of the hours in a year (maximum of 440 hours). The temperature set point and fluctuation shall be $21 \pm 2^\circ$ C.

The temperature span is tight since this prevents people from feeling too hot or too cool as the heating/cooling equipment cycles and since it is easier to maintain stable/controlled RH conditions if the temperature is stable and not another variable in the control strategy. Standby equipment or redundancy is required to 60–75% capacity per piece, total capacity of 120–150%. The fans are to operate 24 hours a day to provide air circulation within the Museum's permanent exhibition space.

Requirements for the General Contractor: The Money Museum does have a dedicated HVAC system that is supposed to provide the above RH and Temperature control, however, currently this system is not functioning as required. The selected GC's mechanical engineer must test the HVAC system prior to start of construction and determine any corrections/interventions to the system to ensure the above standards. The Bank's Exhibition Designer will assess the proposed solutions and advise the Bank on sign-off. Daily temperature and humidity readings will be required during the testing and commissioning phases.

A.4.2 Air Cleanliness

Air circulating throughout the permanent exhibition display modules must be filtered to remove both particulate and gaseous pollutants that can damage the exhibit works. The filtration levels required for particulates are >90% efficiency particulate filtration according to the efficiency-test portion of ASHRAE Standard 52.1-1992, Gravimetric and Dust Spot Procedures for Testing Air Cleaning Devices Used in General Ventilation for Removing Particulate Matter. Levels for gaseous filtration utilizing activated carbon filters are:

SO ₂	<1 µg/m ³ (0.4 ppb)
NO ₂ , HNO ₃	<5 µg/m ³ (2.0 ppb)
O ₃	<2 µg/m ³ (1.0 ppb)

The filter bank should consist of:

- 30% efficient prefilter
- 85% efficient medium filter
- activated carbon filter
- 90% efficient final filter to capture activated carbon dust

or:

- 30% efficient prefilter
- 90% efficient fine filter
- activated carbon filter
- 30% efficient filter to capture activated carbon dust

All filters to be replaced and adjusted to meet the above standards.

A.4.3 Light Levels

It is important to control light levels in the permanent exhibition gallery. Light levels must be adjustable to meet the following standards:

- 50 lux (5 foot-candles) for especially sensitive artefacts—limit exposure to 120,000 lux-hours per annum (11,150 foot-candle-hours per annum). Examples include items composed of paper, textiles, feathers, dyed leather, felt pen ink, etc.
- 200 lux (19 foot-candles) for sensitive artefacts—limit exposure to 500,000 lux-hours per annum (46,470 foot-candle-hours per annum). Examples include all other organic materials, and artefacts of combined media such as leather plus metal, etc.
- 300 lux (28 foot-candles) for insensitive artefacts, which includes most stone, glass, ceramics, unpainted metal, etc.

- Maximum of 10 μ Watts/lumen of UV light at the lux levels proposed above.
- Correlated Color Temperature (CCT) of fluorescent and other discharge lamps is to be appropriate to other light sources in the space.
- Color Rendering Index (CRI) of fluorescent and other discharge lamps to be a minimum of Ra (rendering average) of 85, Rw (rendering worst) of 77.

Requirements for the General Contractor: The Exhibition Designer has identified a lighting track and fixture system as most likely for the permanent exhibition gallery, to allow flexibility to ensure the above control requirements. Alternatives may be specified however they must be able to be dimmed to allow maximum control as stated above. All tracks must have three circuits with two on dimmers and one undimmed as a power source. In addition to control from lighting systems, we require UV film and filters on any glass surfaces exposed to exterior sunlight. These will be noted on instructional drawing packages. Glass surfaces in both the permanent and temporary exhibition spaces require UV films. Source 3M products or better.

A.4.4 Fire Safety and Security

The Central Bank Tower is outfitted with an up-to-date fire suppression and alarm systems that currently include the Museum space. Reconfiguration will be required with removal of the existing exhibit area walls and ceilings and the installation of the new walls and ceilings, since the systems are integrated. The museum requirement is to be met by a smoke detector system, a sprinkler system and backup hose reel and hand extinguishers (A, B, and C type). The current wet-pipe sprinkler system and smoke detectors systems must be reconfigured to the new area design and to Code requirements.

Requirements for the General Contractor: Reconfigure sprinklers and alarm systems once demolition is completed. GC must provide new drawings for locations to Exhibition Designer prior to construction. Relocate CCTV cameras and other security measures upon completion of renovated gallery. Security camera relocations are to be conducted in accordance with the Bank's Security Advisor.

A.4.5 Doors

New doors will be required – single doors and double doors. A new set of double doors into the permanent exhibition gallery must be tempered glass with UV filter and frameless to allow large artifacts and cases to move in and out of the gallery. All other doors will be noted on the instructional drawing set.

Requirements for the General Contractor: Supply and Installation based on the provided elevations, drawings and configurations for all doors by Bank through the Exhibition Designer. These doors into the permanent exhibition shall be 2.5 metres tall and 5 metres wide. All other doors for storage and offices will be of high quality finish suitable for the stature of the Central Bank. All other glass doors shall be tempered and submitted for approval prior to installation.

A.4.6 Ceilings

All ceilings will be removed and left open to below. Ducting and services must be cleaned up and made neat. All ducts, surfaces and ceilings will be painted black. All track lighting are to hang

below to keep visitor eye down to exhibition level and make the ceiling “disappear”. Any required ceiling installation will be detailed by the Bank.

Requirements for the General Contractor: Once the ceiling is removed, the Bank may determine that a drop ceiling is required after all to conceal messy services. General Contractor will supply and install. A tile ceiling will not be acceptable. Any drop ceiling must be seamless.

A.4.7 Walls (including Tempered Glass), Partitions and Balustrades

A set of instructional drawings will identify where new walls (both glass and gypsum/drywall) are required. Service and corridor areas shall be suitably finished for utility and ease of cleaning. Concrete walls should be hardened, sealed, and painted. All glass walls must be tempered and filmed.

Interior gallery walls that are not glass should be constructed of 1.6 cm or 1.9 cm fire retardant plywood or concrete board on studs and covered with gypsum board (drywall), separate from exterior structural wall and capable of supporting 200 kilograms per hanger. The general contractor should note all air openings for HVAC system and return air supply. All glass walls and windows must be treated with UV filters and must be tempered.

In both the permanent gallery and temporary exhibition gallery, a system of low glass balustrades (per drawings) shall be constructed to protect visitors from falling into dangerous window wells.

Requirements for the General Contractor: Ensure all walls, partitions and balustrades are constructed to code and to the highest standards. All interior partition wall heights are to be confirmed in discussion with the Bank and the Exhibition Designer.

A.4.8 Power and Data

Power and data/communication must be provided in the walls (at floor level) and floors (in a regular grid pattern) in the permanent gallery, and in the ceiling in the temporary gallery. General contractor shall ensure provision for three compartments – audio-visual, computer, and fiber optic. We need access to general power as well as provision for audio visual and access to the internet. Recessed power and data outlets are to be provided in the gallery walls at 100 mm from the floor, and recessed floor outlets to be provided on a 4 x 4-foot grid or 1.5 x 1.5-metre grids.

Controls over power fluctuations, power surges, and brownouts must be provided. Back-up power and emergency generator shall be coordinated with the Central Bank's Facilities Department.

Requirements for the General Contractor: Capability to provide a power and data plan for review by the Exhibition Designer. Calculate all load requirements. Check current provision of power, electrical panels and distribution. Determination of any faulty electrical circuitry that would cause lighting fixtures to fail quickly. Coordination with exhibition design team will be required for more specific location of floor outlets.

A.4.9 Floors and Ramps

All carpeting in the current exhibition gallery, storage spaces and offices shall be removed and replaced. Floors underneath the carpet are to be repaired to true levels and new carpeting to be supplied and installed as per specifications provided by the Exhibition Designer. Construction of ramps will be required and will be detailed on the instructional drawing sets

Requirements for General Contractor: Alternate carpet tiles locally sourced may be provided for review by Exhibition Designer and the Central Bank. We want to ensure that carpet can be easily repaired in the future. The general contractor will improve and repair ramping in relation to the double door entrance to the permanent gallery.

A.4.10 Audio Visual Display Systems

Audio and Video systems must be supplied and installed to satisfy the design requirements as determined for the space. Video display units (VDUs) should afford optimum viewing from a distance of no less than 5m at angles of at least 120 degrees. Video displays shall provide LED/HD/1080p/4K capabilities with standard HDMI inputs inclusive of auxiliary ports e.g. Ethernet, VGA, USB 2.0/3.0, optical and component video.

An essential feature of the facility's A/V system is its connectivity and subsequent controls, as such all systems must be capable of being fully integrated and networked to a central location with the flexibility of being controlled both onsite and remotely. The systems shall integrate both hardware and software and be capable of the management of the powering off or on, selection of appropriate sources, integration with A/V monitoring systems, display and volume controls.

Unless otherwise specified, VDUs shall be wall mounted and supplied with the necessary brackets that support horizontal and vertical configurations with 16x9 aspect ratios. Bluetooth and Wi-Fi capabilities are essential.

Audio systems shall consist of ceiling and in-wall loudspeakers, amplifiers, digital signal processors (DSP), and microphone/line controls for sound and voice reinforcement. Audio systems must be fully integrated with video systems and afford network capabilities.

Audio levels shall not exceed 80 dB(A) and be audible and intelligible at distances of at least 3m from video and speaker sources.

Requirements for General Contractor: Schematic drawings indicating where A/V systems will be installed, existing infrastructure and that which is required for new AV systems. These drawings must indicate available power, signal conduit, data outlets and structural accommodations for AV equipment.

A/V design and system drawings depicting the A/V system should reflect equipment configurations, interconnections, details, plate layouts and other graphical depictions of the system installation.

Flow diagrams must also be made available which indicate the sequence of events and logic paths the system should follow.

Reference documentation is required, detailing the settings of each device that requires specific programming or configuration for its functionality e.g. matrix routing, digital signal processing

including settings, levels, and presets and IT integration information including MAC address/IP address schedules, patch bay schedules as applicable.

Software programming and operational training of systems must be provided.

All equipment supplied must satisfy internationally recognized safety testing standards such as UL Listing, CE or CSA. All A/V equipment must be equipped with surge protection devices and all installations must adhere to local codes, health and safety legislation, BSI and/or ANSI International standards and best practices.