TOBAGO HOUSE OF ASSEMBLY

DIVISION OF SPORT AND YOUTH AFFAIRS

DSYA 2020-00012 INVITATION TO TENDER FOR DESIGN, RENOVATION AND OUTFITTING OF PEMBROKE YOUTH DEVELOPMENT CENTRE

Site Visit 18th November, 2020

Closing Date 9th December, 2020

DSYA 2020-00012

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1. BACKGROUND INFORMATION:

The Division of Sport and Youth Affairs (DSYA) has decided to undertake the Design, Renovation and Outfitting of the Pembroke Youth Development Centre. This Youth Development Centre was constructed to create a social and recreational space for the use of the Young people in the community.

2. <u>ELIGIBILITY</u>

- (a) This tender is open to Tenderers situated in the jurisdiction of Tobago only.
- (b) Tenderers with common directors or shareholders bidding shall be disqualified.
- (c) A Bidder, and all parties constituting the Bidder, shall meet the following criteria to be eligible to participate in public procurement:
 - i. the bidder has the legal capacity to enter into a contract;
 - ii. the bidder is not:
 - 1. insolvent;
 - 2. in receivership;
 - 3. bankrupt; or
 - 4. being wound up
 - iii. the bidder's business activities have not been suspended;
 - iv. the bidder is not the subject of legal proceedings for any of the circumstances in (b); and
 - v. The bidder has fulfilled his or her obligations to pay taxes and national Insurance Contributions.
 - vi. The Directors and or Principal Officers have not been convicted for any criminal offences.

3. Scope of Works

The Contractor/ Consultant scope of works for this tender is clearly stated below. (Please refer to Schedule 1)

Overview

The Division of Sport and Youth Affairs in the process of improving the facility at the Pembroke Youth Development Centre to provide suitable space for youths in the community and is therefore seeking a competent Consultant/ Contactor to complete the Design, Renovation and outfitting works.

Roles and responsibilities

The Contractor/ Consultant shall supply all materials, equipment, labour and supervision for the successful completion of the works. All works shall be carried out in accordance with recognised engineering standards and codes.

The Contractor/ Consultant shall provide the necessary PPE for workmen on the site and should be worn at all times, whilst on site and engaged in work activities.

The contractor shall be responsible for the disposal of all rubbish to the suitable garbage disposal site.

Description

Works consist of the following:

1. Design, Renovation and Outfitting of the Pembroke Youth Development Centre.

4. **DURATION**

The Firm must identify the duration as well as schedule in Microsoft Project to show how the works will be completed.

5. FORMAT OF TENDERS

- (a) Tenders shall comprise the (2) Two-Envelope System, this means one (1) envelope will contain the TECHNICAL PROPOSAL and one (1) envelope will contain the FINANCIAL PROPOSAL.
- (b) Alterations or erasures on any tender shall be initialed by the bidder or, in the case of a company, partnership or firm, by a duly authorized officer or employee of such company, partnership or firm.

WP	Addressed to:	Submission location	Site Visit	Closing	Copies
				date	
	[Name of Tenderer]	Tender box (Box	18/11/2020	9/12/2020	one (1) original
	DSYA 2020 –	Opening dimensions are approx.14" long x	at 10:30 a.m.	At 1:30 p.m.	and four (4)
	00012 The	3/4" wide) located on	at		copies
WP	Administrator,	the Ground Floor of the Division's Main	Pembroke		
	Division of Sport	Office Building at	Youth		
	and Youth Affairs	Janis Solomon Building Scarborough	Development		
		Tobago.	Centre		

6. TENDER SUBMISSION INSTRUCTIONS

Tenderers **MUST** submit one (1) original and four (4) copies of their bids in the minimum number of envelopes possible. Therefore, the Division does not expect to see five (5) separate envelopes from any one (1) tenderer, if five envelopes are not necessary. The original bid must be labelled **"ORIGINAL"**. Envelope must be properly sealed with the Tenderer's returning address and contact number at the back of the envelope.

7. <u>TENDER OPENING</u>

Tenders shall be opened at the respective Division's Main Office Building, as stated above shortly after the closing date and time. All tenderers are invited to be present for the opening. According to the Ministry of Health Covid 19 Guidelines, Contractors are asked to wear face mask upon entering the Building. There shall be no congregating of persons in the building when Tender Documents are deposited in the Tender Box. Contractors are also asked to practice social distancing (6' apart) when witnessing the opening of the Tenders.

8. DOCUMENTATION TO BE SUBMITTED

Bidders are required to submit the following documents pursuant to this Tender. Each submission must be bind and sectionized accordingly and tabbed. Failure to do so may result in automatic rejection.

- (a) Cover page as prescribed in Schedule 111.
- (b) Certificate of Incorporation and Notice of Directors.
- (c) Evidence of domicile or operational in Tobago for at least one year Utility Bill (must be <u>at least one year prior</u> to the date of this tender), Notice of Registered Address.
- (d) Valid VAT, NIS and BIR <u>CLEARANCE</u> Certificates (Not registration Certificates)
- (e) Evidence of Past experience of the Tenderer in the form of <u>two (2) previous and or</u> <u>current signed contracts/letters of award</u> in works of a similar nature to that proposed in this tender. Sample of design Drawings from previous projects/works of such nature. Any contracts submitted from a private company must be annexed to a sworn statutory declaration in a format as prescribed by Schedule IV (a) and or (b). The statutory declaration must be sworn by the <u>client and not the Tenderer</u>.
- (f) Two (2) letters of reference in the prescribed form hereto annexed as Schedule V. The References must come from the same clients as those from whom the Bidder supplied contracts for above. The client, project lead and contact numbers for the persons shall suffice, pending reference letters.

- (g) Statement from a <u>recognized financial institution</u> demonstrating the ability to finance the project to at least 50% of the cost proposed in the tender. Letter must give a range, e.g. high five digits, low six digits etc.
- (h) Method Statement- This a detailed description of how the work will be carried out safely. It describes in a logical sequence as how the job will be performed.
- (i) Work Schedule- A detailed schedule of works is required
- (j) Key Personnel should include :
 - a. The names, role and responsibilities of the key personnel proposed to undertake the works.
 - b. Key personnel should be suitable qualified and possess the relevant qualifications and experience to cover the various elements of the works.
 - c. A Project Lead **MUST** be identified who shall be in control of the project. These persons must be made available for the duration of the project.
 - d. Attach CVs of key personnel.
- (k) Health and Safety Policy- A detailed Health and Safety Policy document is required.
- (1) Submission of a conceptual preliminary design of proposal is required.
- (m)**Price Proposal-**This shall be contained in the Bill of Quantities./ Price Proposal document.

Please note that the Contractor/ Consultant along with his Lead person will be required to meet once per week at the DSYA office. This meeting will require weekly projections, discussions or any relating issues, documents for approval and any other information needed by the Project Manager as it relates to the project.

9. <u>SITE VISIT</u>

Division	Location	Date and Time
Sport and Youth	Pembroke, Tobago	18/11/2020 @10:30
Affairs		<i>a.m</i> .

10. EVALUATION CRITERIA

Step 1 - Mandatory criteria

- 1. Tenderers must have the legal capacity to enter into a procurement contract.
- 2. Tenderers MUST have complied with all local Tax laws as at the date of submission.
- 3. Tenderers MUST be domiciled and or operational in Tobago for at least one (1) year. The burden is on the Tenderer to prove same.

Step 2 - Selection criteria – Firm's capability and capacity

Ser	Criteria	Score	Evidence
1	Vat Clearance	Pass/Fail	Section 8 (d)
2	BIR Clearance	Pass/Fail	Section 8 (d)
3	Financial capacity	Pass/Fail	Section 8 (g)

To this end the selection criteria includes -

Award	Criteria -	Project	Related
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Ser	Criteria	Score	Evidence
1	Presentation, layout, order	5	Points shall be deducted for submitting
	and compliance with		irrelevant information that was not
	documents to be submitted		requested
2	Health and Safety	10	Section 8 (k).
	compliant		
3	Past Experience specific	2-10	Section 8 (e)
	and closely related in terms	1-5	
	of complexity and value of	0-0	
	this project		
5	Evidence: Method	20	Section 8 (h)
	Statement		
6	Evidence: Work Schedule	10	Section 8 (i)
7	Evidence: Qualifications	10	Section 8 (j)
	and Experience of Key		
	Personnel		
	Evidence: Conceptual	20	Section 8 (l)
	preliminary design of		
	proposal		
	Total	85	

Award shall then be based on a price/quality ratio i.e. Price/quality points.

Where any documents pertaining to the eligibility, mandatory or selection criteria is incomplete or inaccurate, the Division reserves a discretion to permit the tenderer to bring in the incomplete/inaccurate document within a reasonable time period.

Where the tender evaluation committee is of the opinion that the successful tender is abnormally low, the evaluation committee retains a discretion to reject the tender summarily or require further and better particulars.

11. WAIVER

The Division(s) retains a general right to relax or waive any of the tender requirements, whether it be material or not, so long as waiving such requirement is not unfair to any tenderer who "but for" the waiver, would have submitted a different offer and shall not be prejudicial for any of the other tenderers.

12. <u>REQUESTS FOR ADDITIONAL INFORMATION</u>

Division	of	Sport	and	Youth	procurementdsya@gov.tt	or	tel.#612-3792
Affairs					ext.1012		

Replies to any request for clarification or additional information (including all previous requests) shall be circulated to all parties participating in this tender process.

13. TERMS OF PAYMENT

Upon the successful completion of works and the subsequent issuance of the completion certificate by the Division's project manager, all other monies shall be paid to contractor no later than sixty (60) days after the submission of the invoice to the respective Division

14. BID VALIDITY PERIOD

Bids shall be valid for a period of at least ninety (90) days as per the Tender Submission Form

15. NO CONTRACTUAL OBLIGATIONS

This is an Invitation to Tender. No contractual obligations will arise between the Division and any Tenderer until and unless the Division and a Tenderer enters into a formal, written contract for the Tenderer to provide the services contemplated in this Tender Document. The Tenderer agrees that while the offer is made in accordance with the provisions of this invitation to treat, the Division reserves the right to vary and or amend contractual terms, with mutual consent of the Division and the successful tenderer.

16. <u>LATE TENDERS</u>

Late tenders will not be accepted under any circumstances. The Division reserves the right to reject any or all tenders, in whole or in part, to negotiate changes in the scope of services and waive any technicalities as deemed in its best interest.

17. <u>NO CLAIM FOR COMPENSATION</u>

Except as expressly and specifically permitted in this Tender document, no Tenderer shall have any claim for any compensation of any kind whatsoever, as a result of participation in the ITT, and by submitting a tender each Tenderer shall be deemed to have agreed that it has no claim.

18. <u>INDEMNITY</u>

Tenderers by submitting a tender, commits to indemnify the THA, its employees, agents and or servants, or other lawful invitees on the THA premises of any loss, bodily injury and damage to property due to any act of neglect or default of the successful bidder, its agents, employees and or servants.

19. <u>CONFLICT OF INTEREST</u>

The Division will ensure there is no Conflict of Interest in this tender. As such, any direct family relationship involving Tenderers and Members of Division's Management and Staff must be fully disclosed. A member and/or officer of the Division or the relative of any such person shall not tender for the supply of items and or services stated herein. For the purposes

of this tender the term *"relative"* means the father, mother, brother, sister, son or daughter of a person and includes the spouse of a son or a daughter of such person.

20. <u>RIGHTS OF THE DIVISION</u>

In addition to the rights expressly hereinbefore referred to, the following additional rights accrue -

- (a) The Division reserves the right to reject any or all bids without limiting the generality of the foregoing, a Bid will be summarily rejected if it is conditional, if it is incomplete, obscure, or irregular, if it has erasures or corrections in the Cost Schedule, or if it has unit rates that are obviously unbalanced.
- (b) The Division reserves the right to reject a Bid, which does not provide satisfactory evidence that the proponent has the technical, physical and financial resources to complete the work within a specified contract period.
- (c) The Division reserves the right to accept or reject any bid and to annul the bidding process and reject all bids, at any time prior to Award of Contract, without thereby incurring any liability to the affected. Further, the Division does not have any obligation to inform the affected proponent or proponents of the grounds for the action.
- (d) The Division may declare the bidding void when none of the bids meet the intent of the specifications or when it is evident that there has been a lack of competition and or that there has been collusion. In addition, all bids may be rejected if they are substantially higher than the official budget approved by the Division.
- (e) The Division does not bind itself to accept the lowest or any offer or to reimburse proponents for any expenses incurred in bidding.

21.GOVERNING LAW

All applicable laws in the Republic of Trinidad and Tobago will apply to any resulting agreement.

-End-

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Schedule	Description	Applicable to	Where available
Schedule I	Scope of Works and		In this document
	Specifications		
Schedule II	Price Proposal/ Bill of		In this document
	Quantities		
Schedule	Guidelines		In this document
111(a)			
Schedule	Cover letter		In this Document
111(b)			
Schedule VI (a)	Statutory Declaration from		In this document
	Private Company		
Schedule VI (b)	Statutory Declaration from		In this document
	Private Individual		
Schedule V	Reference letter		In this document

Schedule 1 Scope of Works

Purpose and Summary of Project

The Division of Sport and Youth Affairs (DSYA) is offering the opportunity for a qualified team to design, renovate and outfit the currently decommissioned Pembroke Youth Centre. DSYA seeks to engage under one contract a team under a single, responsible lead entity; herein referred to as the "Design Build Team", to execute the entire scope of work.

Project Cost

The total budget of the proposed work by the Design Build Team is estimated not to exceed \$1,000,000.00. This is inclusive of all the cost incurred throughout all the phases of the project outlined in the RFP. However, this could change based on acceptance or denial of components submitted to the client.

Work Duration

The time period for all the works described in this scope is to be estimated from the commencement date, inclusive of the design period and construction, to the completion date. This duration should be stated in calendar days.

Project Background

The Pembroke Youth Centre is a 1594 ft² concrete block attached structure to the Pembroke Community Centre. The structure was constructed as an addition to the Pembroke Community Centre in 2003. Although currently decommissioned, the Pembroke Youth Centre was constructed to create a social and recreation space primarily for the use of children ages 6 to 18 years. The Centre, through the management of the Department of Youth, supports opportunities for youth to develop their physical, social, emotional, and cognitive abilities. The structural elements of the building are inclusive of eight-inch (8") reinforced concrete columns and beams connecting the rendered concrete block wall enclosure to the main building and providing support for the wood framed galvanized steel sheeted roof. The interior composition of current structure is inclusive of a lobby area, two (2) working spaces, a computer room, kitchenette, and washroom facilities inclusive of three (3) fully enclosed toilet stalls with a common area sink. Rendered concrete block walls forms as the main internal room separator;

with one timber partition wall present. The building services is characterised of having:

- Energy supply and distribution- surface mounted electrical connection. A sub panel pulled from the main panel located in the community Centre currently provides the electrical connection for the lighting fixtures, plugs, and air condition units throughout the Centre.
- Water, drainage and plumbing- the water distribution is connected to and source from the community Centre main line. The community Centre and youth Centre share the same waste water facilities. There's a perimeter surface drain and run off to catchment pit at the back of the building and roof guttering.
- Ventilation and air conditioning- some rooms currently have inoperable air condition units, while others are naturally ventilated with the use of window and vent blocks.
- Security- the windows and boors have metal burglar proofing; highly corroded.

The current building characteristics isn't deemed suitable for operations of the Youth Centre. Hence, the project sets out to rework and renovate the current structure to provide a space that is suitable, safe, and well equipped to facilitate the staff and end users that interacts within the space upon recommission.

Summary of Scope of Work

The project will consist of design, renovation, and outfitting of the Pembroke Youth Centre. The limits for the scope of work are generally the space defined as the section of the building that is deemed by the Project Implementation Unit (PIU) of the DSYA to be Pembroke Youth Centre, herein is referred to as the "Project", including all impacted structures within the Project limits. The Design Build Team will determine whether the existing structure can be extended/widened or whether it must be completely reconstructed guided by the project goals, budget, and specification outline in the Design and Construction Guidelines. The Project also includes outfitting the building with furniture, fixtures and equipment. The Design Build Team will outfit the Project with furniture, fixtures and equipment in accordance with the project goals, budget, and specifications outlined in the Design and Construction Guidelines.

The Design Build Team will provide detailed construction designs for the proposed reworking, renovations, and outfitting; and upon approval for the DSYA PIU, complete plans established in the designs. The Design Build Team will determine the viable project elements and limits guided by the project goals, budget, and specification outline in the Design and Construction Guidelines. Plan reviews and observations will be done by the DSYA PIU representatives throughout the project for the purpose of ensuring that these minimum standards are met. The PIU plan reviews will be conducted in an expeditious manner so as not to delay the Design Build Team in their project delivery.

The Design Build Team is responsible for compliance with all applicable building services and health and safety codes, standards and agency requirements throughout the entirety of the project. The project is to conform to code and standards requirements enforced by the laws of Trinidad and Tobago.

Design Build Team Composition, Roles and Responsibilities

The Design Build Team must be composed of experienced and highly regarded professionals who have demonstrated their ability to produce superior facilities in a cost-effective basis. The Design Build Team as submitted must include, at minimum:

- General Contractor
- Design Professional (This person/team should have recognised qualification in architecture and interior design.)

Other team members may be identified in the submittal or proposed for DSYA approval at a later date. All but one team member shall be considered subcontractors to the Offeror unless they are a legal joint venture.

The responsibilities of the Design Build Team will include:

- a) Become fully informed about the Project and have the experience and ability necessary to perform the required services;
- b) Provide the human resources, equipment, and facilities necessary to furnish the required services through all phases of the Project. This will include, but not be limited to:
 - Coordinating and working closely with the DSYA PIU;
 - Site development planning;
 - Consider DSYA and end user representatives input on conceptual design;
 - Making presentations to and obtaining feedback from DSYA PIU and End User representatives;
 - Preparing plans, specifications and construction documents (all materials used in construction shall meet all applicable code and standard requirements applicable by the laws of Trinidad and Tobago and the Design and Construction Guidelines);
 - Provide and obtain approval of the Design from the DSYA PIU representatives at the completion of schematic design, design development phases and construction documents phase;
 - Providing general architectural/engineering supervision and contract administration during construction; and
 - Providing on-site observation during construction;
- c) Perform required services in an expeditious manner to coincide with the Project Schedule;
- d) Furnish qualified construction personnel who will keep DSYA PIU advised on matters pertaining to the construction of the Project, and who will work toward the goals of obtaining results prescribed by the plans and specifications. This will require cooperation between the DSYA PIU representatives and the Design Build Team with meetings on a weekly basis to facilitate such cooperation;
- e) Provide all materials, supplies and labour for the renovation of the building and site including required furniture, fixtures and equipment; and

f) Perform installation and construction of the renovation in an efficient and safe manner according to the Design Build Team's design, specifications and schedule.

Schedule 11 PRICE PROPOSAL Project Cost/Project Description Design, Renovation and Outfitting

General Condition

1) Including supervision, quality control, temporary facilities, construction equipment, safety, daily clean-up and final clean, general liability and builder's risk insurance. 2) Architectural and engineering design fees Site Work Concrete Masonry Metals **Woods and Plastics Thermal and Moisture Protection Doors and Windows** Finishes **Specialties** Equipment **Furnishings** Mechanical Electrical **Sub Total**

Exclusions

Alternates:

Alternates:		
	Amount	Accept
1)	ADD	
2)	ADD	
3)	ADD	
4)	ADD	
5)	ADD	

=

Total with accepted alternates

Schedule 111(a) Division of Sport and Youth Affairs Pembroke Youth Development Centre Design, Renovation and Outfitting Guidelines

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TECHNICAL SPECIFICATION FOR OUTFITTING

TECHNICAL SPECIFICATION FOR DESIGNS

DESIGN DELIVERABLES

The Design Build Team is expected to provide services and deliver an end product that includes the following key deliverables:

- A. Office space for staff- The total in-house staff at the youth Centre is three (3); inclusive of a Manager, Clerk and Cleaner. This space; at a minimum, must be delivered in accordance with the following assumptions:
 - Composed of space/s that provides privacy from other spaces in the building.
 - Installed office equipment- i.e. Individual desks and seating for staff, two (2) computers and associated operating systems, and storage equipment for stationary and files.
 - The space/s must have access to and have visibility to the Youth Activity space.
 - \circ A minimum of 275 ft² of overall floor space.
 - There is no special request for separate space for managerial staff.
- B. Employees Break Room- This space; at a minimum, must be delivered in accordance with the following assumptions:
 - Kitchen cabinets with solid surfaces capable of storing food items and cleaning products for the building.
 - Appliances such as a refrigerator and microwave.
 - Furnishing that allows for staff to lounge while consuming meals.
 - \circ A minimum of 130 ft² of floor space.
- C. Provide a private space for counselling services. This space; at a minimum, must be delivered in accordance with the following assumptions:
 - Composed of a space that provides privacy from other spaces in the building.
 - At least two (2) points of accessing the room.
 - Furnishing that suites the operations of counselling services.
 - A minimum of 120 ft^2 of floor space.
 - Sound proofing of walls
- D. Provide a reception area at the main entrance of the building. This space; at a minimum, must be delivered in accordance with the following assumptions:

- A minimum of 5ft access from the exterior of the building to the entrance.
- Furnished to provide seating for visitors and desk area for receptionists
- o Consider Café like relaxed, welcoming feel at reception area
- 0
- E. Provide an open flexible space for the youth activity space/s. This space; at a minimum, must be delivered in accordance with the following assumptions:
 - Interior flexibility- consideration that allow "personalization" of the space so that as user groups change, so can the space, for example, through movable walls and specified mural areas.
 - Furnishing- inclusive of a combination of desks, chairs, sofas/sectionals, tables, and open shelving.
 - A space that is "transparent" to other spaces in the building. At a minimum this space should be visible from the reception area and designated office for staff.
 - Direct double door access from the reception area.
 - Inclusive of installed visual and sound equipment.
 - Inclusive of ten (10) laptop computers.
 - Inclusive of a section with shelving to house a library of books.
 - \circ A minimum of 640 ft² of floor space.
- F. Storage- This space/s; at a minimum, must be delivered in accordance with the following assumptions:
 - Direct access from the youth activity space.
 - $\circ~$ A minimum of 5ft access from the youth activity space.
 - \circ A minimum of 200 ft² of floor space.
- G. Toilet Facilities-This space/s; at a minimum, must be delivered in accordance with the following assumptions:
 - Private female washroom inclusive of two (2) toilets and one (1) sink. One toilet should be accessible.
 - Private male washroom inclusive of two (2) toilets and one (1) sink. One toilet should be accessible.
 - There must be some distinguished separation and access points between the male and female washroom.

- H. Updated and installed building services in accordance with national codes and standards as enforced by the laws of Trinidad and Tobago. At a minimum, the final building services delivered are based on the following assumption:
 - Installed encased electrical wiring, switches, plugs, and LED interior and exterior wall and ceiling lighting fixtures.
 - Installed cold water distribution to access point waste water line to existing drains and sewerage facilities.
 - Installed air conditioning throughout the youth space. With the exception of the bathrooms and storage unit; once there are provisions for natural ventilation.
 - Installed data cables (RJ45; CAT 6) throughout the building with a minimum of five (5) access points.
- I. Exterior of the Building
 - The finished external surface of the building should match the current external surface of the current building.
 - At least two (2) points of entries to the building.
 - A minimum of 5ft access main entrance from the exterior of the building to the reception area.
 - Apron, surface drainage and run off around the building where necessary.
 - Repair to leakage issues occurring on the partition wall between the Community Centre and Youth Centre.
 - Burglar proofing of all windows and installation of metal gates at all points of access to the building
 - Signage distinguishing the Youth Centre from the Community Centre
- J. Structural Repair- at a minimum, the final building should deliver:
 - Completed solution to the structural issues highlighted at the building.

GOALS FOR DESIGN

When designing the spaces identified the Design Build Team should consider the following in their design strategy:

- A. Create a homelike environment
 - Provide ample natural light.

- Create a sense of welcome at the entrance.
- Use indirect lighting as the main ambient lighting.
- Avoid institutional looking finishes, textures, and colours.
- B. Encourage creativity
 - Give consideration to interior colours and textures.
 - Consider wall murals.
 - Create space for group interaction.
- C. Maintain a safe and healthy environment
 - Give consideration to supervision structure and sight lines.
 - Plan for space that is easy to clean and maintain.
 - Make entrances very well-lit and easily accessible.
 - Provide sufficient space for freedom of movement.
 - Maintain a Universal Design principle to space.

The Design Build Team will complete the final plans based on the preliminary plans and design report provided at submission and approved by the evaluation committee. Upon award of the contract, the DSYA representative will review the preliminary plans and outline specifications in the design submission to ensure complete conformance to the design guidelines in this document and the RFP.

Final Designs which are guided by all factors established in the design specification document and must include but isn't limited to: Architectural drawings, electrical drawings, plumbing drawings and Furniture, Fixtures, Equipment layout for Construction drawing, and Shop Drawings.

TECHNICAL SPECIFICATION FOR CONSTRUCTION

EXCAVATION AND EARTHWORK

<u>Datum</u>

A. The datum level will be guided by the detail drawing agreed at the commencement of the construction phase. The Contractor shall establish a bench mark on site and shall agree the

location construction and level of this bench mark with the Project Officer. All levels required for the construction of the Works shall be related to this bench mark.

Levels

B. Immediately before any work or any section of the Works is commenced, all necessary levels shall be taken and agreed with the Project Officer. All excavation shall be carried out to the lines and levels shown on the drawings or to such lines and levels as the Project Officer may direct.

Excavation Beyond Line and Levels

C. If for any reason whatsoever excavations are carried out beyond their true line and level other than at the direction of the Project Officer, the Contractor shall at his own expense make good to the required line and level with approved material and in such a manner as the Project Officer may direct.

Clearance of Materials and Obstructions

D. The area of the Works shall be cleared of any material or obstructions, which, in the opinion of the Project Officer would adversely affect the uniformity or stability of the fills or foundations. All topsoil and other clayey materials shall be removed to expose sound formations as determined by the Project Officer.

Unsuitable Material

E. After the clearance provided for above, the Project Officer may order the excavation and removal of any material deemed unsuitable for supporting the fills or foundations to be placed thereon, and subsequent replacement by suitable approved fill material. Payment will be made for all work so directed at the applicable rates.

Mechanical Excavation

F. Where mechanical excavation is used, the Contractor shall ensure that the subsoil is capable of taking any additional loads imposed by such equipment. The Contractor shall

take adequate precautions to prevent earth slips in trenches and shall be fully responsible for damages to any services or property which might be disturb

- G. ed or damaged.
- H. A sufficient depth of material shall be left over the bottom of the excavation to ensure that the ground at finished excavation level is not disturbed in any way. The excavation shall then be completed by hand to the finished levels required.

Mechanical Excavation

I. Any rocks encountered are to be removed with wedges, levers or rock drills. The use of explosives is prohibited.

Over-excavation

J. Formation level shall be the surface level of the ground obtained after completion of the earthworks, i.e., the underside of the sub-base. Any excess depth unnecessarily excavated below formation level shall be backfilled with approved materials and compacted as before specified. Over-excavation below formation level specifically under footings, tie beams, etc., shall be made up in concrete of 1:2 mix. No payment will be made for the materials and workmanship in making good over-excavation.

Areas to be filled

- K. Where unsuitable materials are encountered in the sub-grade below formation level it shall be excavated to such depths and over such areas as the Project Officer or his representative shall direct, and removed or disposed of. The resultant excavation shall be backfilled with other approved material and compacted as before specified. This item shall be paid for as a variation.
- L. Where base course material is disturbed, it is to be reinstated to a standard equivalent to that achieved under the relevant Clause above dealing with compaction and by a means approved by the Project Officer or his representative.

Excavation Material

M. All soil, turf, gravel, stone, timber or other material obtained in the excavation and clearing of the site shall belong to the Employer and must not be removed from the Works without the consent of the Project Officer. The Contractor may, however, use for the construction of the Works, any of the materials excavated which the Project Officer may determine to be fit for such use.

Re-use of Material

N. Excavated material from the Works selected by the Project Officer for re-use shall be placed directly in its final position or may be stacked on site as directed by the Project Officer.

Material unfit for use

O. Spoil unfit for re-use shall be removed from the site. The Contractor shall trim and regulate the spoil tips to profiles and levels as directed by the Project Officer. He shall also maintain without interruption the flow of water-courses affected by the tips and he shall observe any agreement concerning the site, existing between the Employer and the persons or authorities concerned.

Compaction

P. The Contractor shall submit to the Project Officer in advance of filling and compaction the proposed method of construction and the type of equipment for carrying out such works and the contractor shall not commence construction until the Project Officer's approval has been given. Compaction of fill materials is to be done by the approved method in layers not exceeding 6 inches compacted thickness. The fill must be compacted at each lift to the satisfaction of the Project Officer.

Inspection of Excavation Bottoms

Q. The excavations for all foundations shall be inspected by the Project Officer. At least 24 hours' notice that such an inspection will be required.

Anti-termite Treatment

R. Anti-termite treatment shall consist of the use of chemicals as a soil treatment to establish a barrier which is lethal or repellent to subterranean termites. The toxicant shall be applied with such thoroughness and uniformity that it provides a barrier in all routes of termite entry. The treatment is a member of the National Pest Control Association of Trinidad and Tobago or an equivalent overseas association. The company shall have specialised in anti-termite treatment for at least ten years prior to the date the treatment is required for this project and is required to provide a five-year guarantee in the name of the Employer. The toxicants which the specialist intends to use shall be submitted for approval to the Project Officer. This approval however, shall not relieve the contractor or specialist from their responsibility of guarantee.

Restoration of Roads, etc.

S. The Contractor shall make good any damage that may be occasioned to any property, by reason of the execution of the Works, or by the conveying or removal of materials or plant thereto or therefrom.

Records

T. The Contractor shall supply all records that may be required by the Project Officer, for the purpose of preparing as-built drawings.

Pricing

U. A Prices for Excavation and Earthwork shall include: -

- 1. All considerations arising from the specification, noted from the design drawings and reasonably inferred from the site conditions.
- 2. Hand and/or mechanical excavation and disposal in whatever types of soil or fill encountered excluding concrete and rock, roots, drain pipes and other obstructions and the Contractor shall judge for himself the nature of the conditions.
- 3. The Contractor must give notification to the Project Officer of his representative when concrete or rock is encountered and its extent must be agreed with the Project Officer or Quantity Surveyor, or their authorised representatives before the work is carried out. No allowance will be made for concrete work or rock excavation unless the foregoing procedure has been allowed.
- 4. Extra difficulties of getting out, disposal and extra bulking of concrete and rock.
- 5. Planking and strutting left in at the Contractor's volition
- 6. Temporary retention of fills
- 7. Disposal of trees and other vegetation cut down and grubbed up
- 8. Excavation in any type of ground or soil encountered excluding concrete and rock.

TECHNICAL SPECIFICATION FOR CONSTRUCTION

CONCRETE WORK

Aggregate

- A. Samples of aggregate are to be submitted to the Project Officer for approval at the commencement of the work.
- B. Once the site sample has been approved, the Contractor shall make arrangements with his aggregate supplier to establish that ample supplies of both coarse and fine aggregate of the quality and colour selected are available to complete the contract.
- C. After the approval of samples of the aggregates by the Project Officer the samples will be retained by them for comparison with all subsequent deliveries. Any delivery which in the opinion of the Project Officer is not in accordance with the standard of the samples

previously supplied by the Contractor shall be rejected as unfit for use in the works and shall forthwith be removed from the site by the contractor at his own expense.

D. If the Project Officer considers it necessary to carry out grading tests on the aggregate, the contractor shall be responsible for the cost of such tests.

Water

E. The water used in the concrete is to be clean, drinkable, free from impurities and from a source approved by the Project Officer.

Concrete tests

<u>Tests</u>

F. The Contractor shall keep on the site, six 150mm steel test cube moulds and a slump measuring cone throughout the course of the contract and shall allow for the making and testing of 6 test cubes at such times as directed by the Project Officer. The cubes shall be crushed at 7 days or 28 days as directed by the Project Officer. Clump tests shall be made at intervals during each pour.

The concrete shall be expected to have a slump of about 50mm and a slump of more than 100mm will not be permitted unless specially agreed to by the Project Officer. All testing shall be done in accordance with British Standard No 1881:1970, "Methods of Testing Concrete".

- G. Concrete strengths shall be as specified on the drawings, 7-day cube strengths are to be 80% of the required 28-day cube strength.
- H. In the event of the specified cube strength not being met, that part of the structure which is affected shall be subjected to such other tests as the Project Officer may direct and subsequently may be required to be straightened if possible or cut out and rebuilt, as the Project Officer may direct, all at the Contractor's expense.

- I. Before commencement of the Contract, the Contractor shall submit to the Project Officer for his approval, the names of the Testing Authority he proposes to employ.
- J. The Contractor shall provide all equipment necessary for carrying out all tests on site specified or described in this specification, and he shall make and provide for all necessary arrangements for the delivery of all samples and test pieces to be tested by the approved Testing Authority.
- K. The Contractor shall provide for maintaining all testing equipment on site in proper working order to the satisfaction of the Project Officer.
- L. The Contractor shall provide for sending copies of the test results to the Project Officer where these are required.
- M. The Contractor will not be paid for any special tests called for by the Project Officer in consequence of any failure by the Contractor to comply with this specification.
- N. The Contractor will be paid, at rates to be agreed, for any other special tests called for by the Project Officer unless the test results show failure to comply with this specification.
- O. The Manufacturer's certificate of tests including compressive strength tests carried out in accordance with B.S. 12 for normal setting Portland Cement shall be supplied to the Project Officer is requested.
- P. Mild test certificates for every batch of reinforcing bars shall be submitted to the Project Officer if requested.

Load tests.

- Q. Load tests of completed parts of the structure may be called for by the Project Officer at any time.
- R. The test procedure and the standard of acceptance will be specified by the Project Officer in accordance with established codes of practice.
- S. Where the results of such tests indicate that any member or part of the structure does not comply with this specification, that part of the structure shall be classed as defective work.
- T. Only in the event of the test results indicating acceptance of that part of structure will the Contractor be reimbursed for the costs of such testing.
- U. Mix proportions shall be designed by the Contractor for each structural concrete mix specified.
- V. The mixes shall be designed to have sufficient workability to allow concrete to be placed and properly compacted by the methods to be used on site.

Site Control

- W. For all concrete grades, the quantities of cement and aggregates in the mix shall be measured separately by weight with approved weigh-batching plant.
- X. Where the cement is delivered to the site in bags, each batch of mixed concrete shall be proportioned to use and integral number of complete bags.
- Y. The water-cement ratio determined in the calculation of proportions for each mix shall be accurately maintained. The amount of water used in each batch shall be controlled by direct measurement, and due allowance shall be made for water content of the aggregate.
- Z. The slump test of compaction factor test shall be used as a guide to the workability of the mixed concrete.

- AA. The permissible range of slump is 100mm maximum and 25mm minimum. Variations will be permitted on acceptance by the Project Officer of the Contractor's proposals for concrete mix placement.
- BB. If a change in the grading of any aggregate is unavoidable, the proportions of all structural concrete mixes affected shall be revised to take account of the altered grading.

Storage

- CC. On arrival on the site, cement is at once to be stored in a dry shed with a raised floor and water-proof walls and roof, the cement is to be stored so that consignments are used in the order in which they are received.
- DD. Cement which has become damp or which has deteriorated is not to be used and must be removed from the site.
- EE. The fine and coarse aggregates shall be stored at the site on a hard impervious surface such as a bed of weak concrete or a timber or sheet metal platform laid to a fall and in such a manner as to ensure protection from all extraneous matter.

Batching

- FF. Aggregates shall be measured by WEIGHT. Cement shall be measured by weight using one or more complete bags to a batch.
- GG. The quantity of water used in mixing the concrete shall be the minimum necessary to produce a workable mix. Due account shall be taken of the water content of the aggregates, especially following heavy rain.
- HH. Mixing of the concrete shall be done in an approved mechanical mixer until there is a uniform distribution of materials and the mass is uniform in colour and consistency, but in no case should the mixing continue for less than 2 minutes.

Pouring

- II. Concrete shall be handled so to avoid segregation, pollution, or loss of the ingredient and shall be place in less than 30 minutes from the time of adding the water to the mix, and not subsequently disturbed.
- JJ. Concrete shall not be deposited through a chute, dropped through a height greater than 2 metres or deposited through water, without special permission of the Project Officer.

Wet weather concreting

- KK. Concreting during periods of constant rain shall not be permitted unless aggregate stockpiles, mixers and transporting equipment and the areas to be concreted are adequately covered.
- LL.During showery weather, the Contractor shall ensure that work can be concluded at short notice by the provision of stop ends. On no account shall work be terminated before each section between one stop end and another is complete.
- MM. Adequate covering shall be provided to protect newly placed concrete from the rain.

Compaction

NN. All concrete shall be vibrated with heavy duty high frequency poker vibrators and be additionally tamped and rammed so as to thoroughly fill the shuttering and form a dense homogeneous mass.

Curing

OO. Concrete, after being placed, shall be protected from the effect of sunshine and rain. Concrete is to be kept moist by well watering for at least 3 days after placing and exposed
surface are to be covered with hessian or other approved material to effectively retain the water.

PP. Proprietary curing compounds may be used with the permission of the Project Officer

Construction Joints

- QQ. Positions of construction joints where not shown on the drawings are to be approved by the Project Officer.
- RR. All construction joints details are as shown on the drawings. They shall be hacked to remove all laitance or loose material and thoroughly washed down.

Blinding

SS. A 2 inches layer of blinding concrete (1:4:8) mix shall be placed under all reinforced concrete built on the ground.

<u>Finish</u>

- TT. The surface of all concrete slabs is to be floated to a uniform smooth surface unless otherwise specified on the drawings.
- UU. Concrete floor slabs shall be cast in panels of 40 sq. m maximum an interval of 48 hours being left between casting adjacent panels.

Ready Mixed Concrete

VV. Ready-mixed concrete shall be permitted provided the following additional requirements are complied with:

- 1. No water shall be added to the aggregate and cement in the mixer until instructions to do so are given by the Foreman on Site.
- 2. Discharge of concrete shall be completed within 1/2 hour of adding the mixing water to the cement and aggregates
- The Contractor shall obtain certificates showing batch records of the quantities by weight of all the solid materials, of the total amount of water used in mixing and of the results of all tests. He shall produce these certificates for the Project Officer as requested.
- WW. Ready-mixed concrete shall be permitted provided the following additional requirements are complied with:
 - A minimum of six site test cubes per 40 cubic metres of concrete delivered shall be made and tested in accordance with B.S. 1881 if so required by the Project Officer and at the Contractor's own expense.
 - 2. (e) In all other respects, the ready-mix concrete shall comply with the requirements of the previous clauses for concrete.

Reinforcement

The steel reinforcement shall be 460N/mm² high yield steel.

XX. Reinforcement described as "mesh" reinforcement is welded steel fabric complying with B.S. 4483. Attention is to be paid, in the placing of such mesh reinforcement, to the direction of the main bars as shown on the drawings. All mesh shall be purchased from the manufacturers as flat sheets.

- YY. All reinforcement shall be thoroughly cleaned and free from scale. Reinforcement shall be wire brushed if required by the Project Officer.
- ZZ.All reinforcing steel is to be bent cold to the dimensions given on the bar schedules. Bar dimensions are given according to B.S. 4466, i.e., the dimensions of links are inside dimensions, otherwise dimensions given are outside dimensions.
- AAA. Reinforcement is to be fixed firmly in position before concreting and the Contractor is to allow in his rates for all additional reinforcement, chairs, spacers or other items necessary to achieve this.
- BBB. Binding wire is to be arranged with the ends bent away from the shuttering so that the concrete cover is not reduced by more than the diameter of the wire.
- CCC. A lap of not less than forty-four diameters of the smaller bar shall be provided at the junction of two bars for which the lap is not specifically detailed on the drawings.
- DDD. All reinforcement shall be accurately placed, securely fixed and adequately maintained in the positions shown on the drawings and the Contractor shall allow in his price for all additional reinforcement, spacer bars and other items necessary to achieve this.
- EEE. The concrete cover to the reinforcement detailed on the drawings shall be maintained by use of approved methods.
- FFF. The placing and fixing of all reinforcement between successive construction joints shall be completed, inspected and approved by the Project Officer before the concreting of that section of structure begins. The Contractor shall give the Project Officer 48-hour notice of the times for these inspections.
- GGG. Welding of steel reinforcement is not required. No welding of reinforcement shall be put in hand without the written permission of the Project Officer.

HHH. No metal part of any device used for connection bars or for maintaining reinforcement in the correct position shall remain permanently within the specified minimum concrete cover to the reinforcement.

Formwork

- III. Formwork and its supporting members shall be sufficiently strong to carry the works and all incidental loading. The props and lateral supports shall be sufficiently closely spaced to prevent displacement or visible deflection of the shutters under the weight or hydraulic pressure of the wet concrete. All joints in the formwork and joints between the formwork and previous work shall be sufficiently tight to prevent loss of liquid from the concrete through these joints.
- JJJ.Fixing blocks, ends of brackets, bars, bolts etc., shall be cast in the concrete at the time of placing and all mortices, holes, apertures, chases, grooves, etc., shall be accurately set out in the formwork as the concrete is placed. No part of the concrete works shall be cut away for any such item, or for any other reason, without the Project Officer's and/or Project Officer's permission.
- KKK. The Contractor shall obtain from all sub-contractors complete information of their requirements regarding conduits, pipes, fixing blocks or boxes, chases, holes and any other items to be cast or formed in the concrete members, subject to the condition that failure of a subcontractor to supply such information shall not be allowed to delay the progress of the Contract.
- LLL. The Contractor shall ensure that all subcontractors are informed of his programme for the structural works at the commencement of the Contract. He shall also ensure that subcontractor's requirements relating to concrete members are approved by the Project Officer and Project Officer before work is commenced.

- MMM. At the commencement of the Contract, the Contractor shall supply all subcontractors with written copies of this section of the specification.
- NNN. The vertical propping to all formwork shall be carried down sufficiently far to provide the necessary support without damages overstress or displacement of any part of the construction.
- OOO. Structural props shall be retained in position until new construction is sufficiently strong to support its own weight and any loads to be placed on it during the Contract period.

The internal faces of the formwork may be coated with an approved preparation to prevent adhesion of the concrete to the forms, provided that this preparation shall not be allowed to touch the reinforcement.

- PPP. Immediately before the concrete is placed in any section of the formwork, the interior of that section shall be completely cleared of all extraneous materials.
- QQQ. Each section of the formwork to structural members shall be inspected and passed by the Project Officer 's representative immediately before the concrete is placed in that section.
- RRR. The structure shall not be distorted, damaged or overloaded in any way by the removal of the formwork from concrete members.
- SSS. The responsibility for the safe removal of any part of the formwork or strutting shall rest with the Contractor.
- TTT. Before the formwork is removed from any structural member, the Contractor shall ensure that the concrete in the member has attained sufficient strength for striking to proceed.

- UUU. Where exposed concrete finishes are required, the Contractor shall provide in a suitable position, test samples of each type of finish to be used in the works. The test samples shall be approved by the Project Officer before these finishes are put in hand in the works.
- VVV. The test pieces shall be vertical panels, 1 metre square and 225mm thick. After approval, they shall be retained in position until the concrete works have been completed when they shall be demolished and removed from the Works.
- WWW. The approved sample panel will be deemed to represent the minimum acceptable standard in the work.

Fair faced exposed concrete surfaces

- XXX. Unless otherwise specified all concrete faces to be exposed in the finished works shall be left as struck with a fair face, true to line, and level within the specified tolerances for the works. Use properly braced plywood shuttering on all surfaces described as "fair faced" which will remain exposed in the finished works.
- YYY. After inspection all superfluous fins and similar projections shall be carefully removed. No render or other applied finish shall be used to obtain a fair face to the concrete.
- ZZZ. All concrete faces to be exposed in the finished works shall be adequately protected against damage and surface staining during the execution of subsequent works.

- AAAA. Any finished works which the Project Officer shall judge inferior in any respect to the standard of the relevant approved sample or which is subjected to subsequent damage or surface staining shall be rejected and treated as defective work.
- BBBB. A Prices for Concrete Work shall include: -
 - 1. All considerations arising from the specification, noted from the design drawings and reasonably inferred from the site conditions.
 - Where concrete is cast in earth cuts (i.e. not described as filled into formwork) for any additional concrete over the size stated or shown necessitated by the irregularity of the surface retaining the concrete.
 - Cutting, bends, hooks, tying wire, distance blocks and ordinary spacers for reinforcement. The total weights of reinforcement given have been calculated at the weights given in the relevant British Standard.
 - 4. All cleaning and oiling of forms and making good of exposed concrete surfaces after removal of formwork e.g. cutting off projecting fins, filling out small voids and brushing to exposed aggregate.
 - 5. Where formwork is described as "wrought" or "dressed" for producing a "fair face" finish either by lining the formwork with suitable material and/or filling in voids etc., and rubbing down to a smooth finish to the Project Officer 's approval.
 - 6. Hoisting and fixing in position of Precast units including bedding, jointing and pointing where necessary in cement mortar similar to that used in adjoining work.

TECHNICAL SPECIFICATION FOR CONSTRUCTION

BLOCKWORK

Cement and Water

A. Cement and water shall be as described under "CONCRETE WORK".

Sand

B. Sand shall be clean fine plastering sand, free from salt, organic matter, clay, loam, dirt or other deleterious matter.

Plasticiser

C. Plasticiser shall be "Rendaplas" or other equal and approved and used in accordance with the manufacturer's instructions.

Mortar

- D. Mix mortar for blockwork of cement and sand (1:3) mixed on site in a similar manner to concrete including a plasticiser additive at the rate of quarter pint of plasticiser to every bag of cement and use within one hour of mixing. Mortar which has commenced to set is not to be knocked up again for re-use.
- E. Mortar for load bearing masonry shall have a minimum compressive strength of 14N/mm2 at 28 days.

Clay Blocks

F. Hollow clay blocks shall conform to B.S. 3921:1974 of first quality, good, sound, hard and well burnt, true to shape and size, ribbed and scored for plaster, unless otherwise described.

Concrete blocks

- G. Concrete blocks shall conform to B.S. 2028, 1364:1968 of first quality, sound hard well cured and true to shape and size of the types described. Where plaster finish is required on concrete blocks, rough textured type blocks shall be supplied; where "fair face" finish is required all blocks shall be smooth textured with clean unbroken edges.
- H. Load bearing blocks shall have an average crushing strength (average of 5 units) of not less than 7N/mm2 measured over the gross area. Concrete masonry units shall be tested in accordance with ASTM C-140. The Contractor shall allow for testing 5 random units, prior to commencement of the job.
- I. No dimension shall differ by more than 3mm from the specified standard dimension "Standard Dimensions" refer to the manufacturer's designated dimensions and are not to be confused with "nominal dimensions" or modular size units which are equal to the standard dimensions plus 10mm the thickness of one standard mortar joint.

Concrete blocks

J. Minimum face-shell thickness and web thickness shall be as specified below:

Nominal Unit	Width Minimum Face-Shell	Web Thickness
150mm	25mm	25mm
200mm	30mm	25mm

Measurements shall be the average of 5 units taken at the thinnest point.

Laying blocks

- K. At the time of laying all masonry units shall be free of excessive dirt and dust. Proper masonry units shall be used to provide a minimum of cutting. Where cutting is necessary, cuts shall be neat and true. Where masonry is to be bonded to a concrete beam or footing, the concrete surface shall be clean with laitance removed. Unless shown otherwise, blocks are to be laid in uniform courses with regular running bond.
- L. Units shall be laid to preserve the un-obstructed vertical continuity of the cells to be filled. Such cells shall be not less than 50mm x 75mm clear.
- M. Grouted cells are to be kept clear of all overhangs, mortar droppings and other material. Clean out holes shall be provided for each pour by leaving out every other unit in the bottom course of this section being poured. These cleanouts shall be sealed after inspection.
- N. Mortar joints shall be straight, clean and uniform in thickness and shall be tooled as shown on the plans. Joints shall be tooled in a manner which compacts the mortar, pressuring the excess mortar out of the joint rather than dragging it out. The mortar shall be well bonded to the block at the edges.
- O. Tooling shall be done when the mortar is partially set but still sufficiently plastic to bond. Where walls are to receive plaster, the joints shall be struck flush. Joints which are not tight at the time of tooling shall be raked out, pointed and then tooled. If it is necessary to move a unit after it has once been set in place, the unit shall be removed from the wall, cleaned and set in fresh mortar. Joints shall be 10mm thick unless specified otherwise and shall have full coverage on faces, webs and vertical ends.
- P. Where reinforcement is used in horizontal mortar joints, the thickness of the joint shall be at least twice the thickness of the diameter of the reinforcement.
- Q. When hot, dry weather exists, units shall be wetted with a light fog spray, but not immersed into any vessel. The work shall be carried up course by course and no one portion shall be

raised more than four courses at any time. All perpends and quoins shall be kept strictly true and square and carefully levelled through every second course.

R.

Grouting

- S. Where vertical reinforcement is specified or described, the reinforced cells are to be grouted for the full height of wall.
- T. Grout shall consist of one part of Portland cement to three parts of concrete quality sand to 1.5 parts pea gravel having a maximum size of 10mm. The grout mix shall contain not less than 450kg of cement per cubic metre. Sufficient water shall be added to make a workable mix that will flow into all the parts of the masonry cell without separation or segregation. The slump of the grout should be in the region of 75mm to 100mm. Grout shall be placed before any initial set occurs and in no case more than 1 1/2 hours after water had been first added. Admixtures may be used subject to prior approval by the Project Officer.
- U. Grout shall develop a minimum compressive strength of 20N/mm2 at 28 days when tested as follows:
- V. Grout shall not be placed to a height of more than 1 metre at one time and there shall be a minimum interval of 60 minutes between pours. When work is stopped for one hour or longer, the horizontal construction joints shall be formed by stopping all tries at the same elevation with the grout 40mm below the top. Grout shall be compacted with a suitable pencil vibrator.
- W. The final pour where a block wall is constructed to about a fixed soffit shall be carried out through a chute fixed to the side of the wall so that grout may be poured up to soffit level. The resultant surplus may be removed and cleaned off as soon as the grout has reached an initial set. After grouting, walls shall be hosed down to clean off scum and stains. No grout shall be placed until such time as the masonry mortar has sufficiently hardened to prevent "blow outs"

X. Where the top of the grouted wall is exposed, it shall be kept moist for curing purposes for at least three days after pouring.

Reinforcement

- Y. Block walls shall be reinforced as shown on Project Officer 's drawings. The relevant clauses on reinforcement included in the Concrete Work Section of this Specification shall also be applicable to Blockwork.
- Z. When a foundation dowel does not line up with a vertical core, it shall not be sloped more than one horizontal in six verticals. Vertical reinforcement shall be held in position at the top and bottom and at intervals not exceeding 192 diameters of reinforcement. Vertical reinforcing steel shall have a minimum clearance of a 6mm from the masonry and no less than one bar diameter between bars.
- AA. Wire reinforcement shall be completely embedded in mortar. Wire reinforcement shall be lapped a minimum of 150mm at splices and shall contain at least one cross wire of each piece of reinforcement in the lapped distance.

Chases and openings

BB. No chases and openings whatsoever shall be allowed without written permission from the Project Officer. Should chasing be necessary, they shall be not deeper than one-half the wall's thickness. No horizontal chase or the horizontal projection of a diagonal chase shall exceed 1200mm. Where openings are approved, they shall have lintels of reinforced concrete and such lintels shall have a bearing of 200mm minimum at each end.

Pricing

- CC. Prices for Blockwork shall include:
 - 1. All considerations arising from the specification, noted from the design drawings and reasonably inferred from the site conditions.
 - 2. All rough cutting (Except raking, splayed and curve cutting), cutting and pinning up at top walls, cutting at ends and around openings, cutting and bonding at intersections and

building off beams and plates, filling exposed ends with mortar and forming and filling reveals.

- 3. All labours implied by the use of reinforcement where described as reinforced.
- 4. Where blockwork is not described as finished with a fair or pointed, include for raking out or leaving joints recessed to form key for rendering or other masonry finish.

TECHNICAL SPECIFICATION FOR CONSTRUCTION

ROOFING

SHEET METAL ROOFING

<u>Material</u>

- A. Roof covering where described as curved tee-panel sheeting shall consist of 24-gauge galvalume conforming to ASTM 792-86 with baked on paint finish carrying a ten-year guarantee and comprised of 0.80 to 0.90 mil full strength with a flurro carbon coating over an epoxy primer of a .2 to .3 mil on the finish side with primer and wash coat on the reverse side. Face film thickness 0.95mil to 1.25 mil.
- B. Roof covering where described as Structural Snap lock Standing Seam roofing shall consist of 24-gauge galvalume conforming to ASTM-A791, 50KSI with baked on paint finish carrying a ten year guarantee and comprised of a .8 to .9 mil full strength with a flurro carbon coating over an epoxy primer of a .2 to .3 mil on the finish side with primer and wash coat on the reverse side. Face film thickness 1.0mil and .2 mil. Roof covering shall consist of a 1³/₄" snap lock standing seam system.

Sheet Flashings

C. All flashings, unless otherwise specified, are to be supplied in gauge, material, colour and finish to match the sheeting. All joints to be detailed in accordance with the manufacturer's recommendations.

Storage of sheeting and Flashings

D. Precoated steel sheets shall be stored under cover, clear of the ground on clean dry timber battens in accordance with manufacturer's recommendations.

E. The Contractor shall furnish installation drawings of all roofs showing all fixings, flashings etc. within three months.

Structure

F. Check that structure is in a suitable state to receive sheeting before commencing fixing. So not fix decking until final coats of paint have been applied to outer surfaces of supporting structure.

Workmanship Generally

G. Cut sheets to give clean, true lines with no distortion, using mechanical shears or nibbles as appropriate. Remove burrs and any lubricant.

Cut openings in sheets for outlets, vent pipes, flues, etc. to the minimum size necessary. Reinforced edges of openings with trimmings and angles.

Drill all holes. Holes for main fixings to be 1.5mm larger than diameter of fastening unless self-drilling type with pilot point used.

Remove all drilling swarf, dust and any other foreign matter before placing any membranes or insulation.

Protect sheets during fixing and up to Practical Completion against mechanical damage, corrosion and disfigurement.

Attachment

- H. Fixings generally: to be in accordance with manufacturers recommendations.
- I. Fix sheeting to every support through ridges of profile. End laps to be fully supported.
- J. Side lap stitching: to manufacturer's recommendations.
- K. Check tightness of fixing on completion and ensure sheeting is not buckled or distorted.

Pricing

L. Prices for Roofing Work are to include for all considerations arising from this specification, noted from the design drawings and reasonably inferred from the site conditions.

M. Roof covering is to be carried out by Approved Specialist Roofing Sub-Contractor.

TECHNICAL SPECIFICATION FOR CONSTRUCTION

CARPENTRY AND JOINERY

Timber generally

- A. The timber for Carpentry and Joinery shall be as specified and obtained from an approved sawmill. The timber for the carpentry shall be Second or Select Grade. The timber shall be reasonably straight grained and free from knots.
- B. Timber for carpentry work shall be well seasoned, free from sap, large, loose or deal knots, waney edges, excessive moisture, disease, insect attack or other defects, in as long commercial lengths as possible, and sawn die square and shall come within the sizes and grading as defined in BS 4471 Parts 1 and 2 and 4978 respectively.
- C. The timber may be :
 - 1. Best quality kiln seasoned hardwood or pitch-pine.
 - 2. Timber properly aired or kiln seasoned and free from warp, twist or rot. Timber with the following defects will be acceptable provided the defect does not extend beyond the limits specified.
 - 3. Splits and cracks shall not extend for more than one third the width of thickness, or for more than one tenth of the length of the timber.
 - 4. Wane shall not extend for more than one fifth of the length of the timber and be on one edge only.
 - 5. The diameter of a knot shall not exceed one third of the width of the face of the timber on which it occurs.
 - 6. All timber for carpentry shall be deemed to be sawn unless otherwise described.

Pitch Pine

C. Pitch Pine shall be best imported quality of mature growth free from gross defects, air seasoned and having a minimum density of 450kg/m3 at 25% moisture content

Plywood

D. Plywood shall be from an approved source and comply with BS1455, first or second grade as required, and unless otherwise stated shall be "interior" quality. Where veneered plywood is specified, samples must be submitted for prior approval. Where stated to be "exterior" quality, this shall be weatherproof.

Insect Damage / Pre-Treatment

- E. All timber including plywood shall be treated against insect attack as set out in paragraphsD and E below before use in the Works.
- F. All timber including plywood shall be free of insect attack when brought upon the Site. The Contractor shall be responsible up to the end of the maintenance period for executing at his own cost all work necessary to eradicate insect attack on timber which becomes evident including the replacement of timber attack or suspected of being attack notwithstanding the fact that the timber concerned may already been inspected and passed as fit for use.

Pressure impregnation treatment

- G. All carpentry timber, sawn joinery and grounds for fixing joinery etc., is to be either:
 - 1. vacuum pressure impregnated with Tanalith C preservative to a dry salt net retention of 0.65lbs Tanalith C per cubic foot of timber, or
 - 2. Immersed for not less than 10 minutes in organic solvent preservative containing persistent insecticide to the Project Officer 's approval and stacked until the moisture content returns to 18% or 15% as above described. Cut ends and faces of timber sawn after treatment are to be swabbed liberally with ensele and grain preservative, allowed to dry then applied in a similar manner a second time. The Contractor's price for such timber must allow for this treatment.

H. All timber including softwoods, hardwoods and/or plywood shall be treated against infestation by the powder post beetle by kiln sterilization at 40-50 degree centigrade for approved preservation treatment consisting of chrome, copper and arsenic and in accordance with all manufacturer's instructions.

Inspection and testing

- I. The Project Officer shall be given facilities for inspection of all works in progress whether in workshops or on site. All timber as it arrives on the site may be inspected by the Project Officer and any timber brought on to the site and not approved by him must be removed forthwith, failing which he may arrange for the removal of the rejected material and dispose of it as he considers advisable at the Contractor's expense.
- J. Notwithstanding approval having been given as above, any timber incorporated in the works found to be in any way defective before the expiry of the maintenance period of shall be removed and renewed at the Contractor's expense. The Contractor is to allow for testing of prototype of special construction units and the Project Officer shall be at liberty to select any samples he may require for the purpose of testing, i.e. for moisture, or identification of species, strength, etc.
- K. Timber built into or against a wall shall be treated with an approved wood preservative, in addition to preservative treatment as already described above, and as much clear air space maintained around the timber where it adjoins the wall as possible.

Treated Timber

L. Where cross cutting or boring of treated timber is unavoidable liberally swab or dip-treat all exposed faces with creosote or other approved preservative.

Tolerances

M. All structural timbers shall be sawn timbers to the sections given on drawings. Permissible tolerance on cross section dimensions will be 6mm and -3mm with no allowance for wane.

Standards

N. The following British Standards shall apply in so far as they refer :

- 1. BSW black bolts and nuts BS 916
- 2. Wire nails and cut nails for building purposes BS 1202
- 3. Wood screws BS 1210
- 4. Workmanship and Maintenance BSCP 112
- 5. Preservative Treatment for Structural Timber BS 98

Exposed faces

O. Timber which is to be exposed in the finished work shall be "dressed" unless otherwise described.

Natural finish

P. When natural finish or finish for staining, clear polish or varnishing is specified, the timber in adjacent pieces shall be matched, or uniform, or symmetrical in colour and grain.

Shrinkage

Q. Arrange joint and fix all joinery work in such a manner that shrinkage in any part, and in any direction shall not impair the strength and appearance of the finished work and shall not cause damage to adjoining materials or structure.

Joints

R. Construct joinery exactly as shown on the Project Officer 's details. Where joints are not specifically indicated they shall be the recognised forms of joints for each position. All glued joints shall be cross-tongued.

Tolerance

S. Provide reasonable tolerance at all connections between joinery work and the building carcass so that any irregularities, settlements or other movements shall be adequately compensated for.

Fabrication

T. Put in hand all joinery work immediately on commencement of the Work and store in a dry place and put together without wedging up for the inspection and approval of the Project Officer. Care should be taken in fabrication to avoid excessive wetting or drying of the timber.

<u>Nails</u>

U. All nails used shall be galvanised wire nails driven into pre-bored holes not exceeding 4/5 of the nail diameter.

Bolt holes

V. Bolt holes should be large enough to permit easy access for the bolt but may not exceed D + D/16 or D + 4mm whichever is the larger, where D is the bolt diameter.

Fixings

W. All fixings, plates, shoes or straps shown on the drawings shall be neatly formed of mild steel plate drilled and welded as necessary. Prior to erection all Mild Steel components shall be wire brushed and primed with one coat of Red Lead Zinc Chromate primer. All surfaces in contact with the wood shall be painted with a further two coats of bituminous paint.

Doors and Windows

- X. Flush doors timber shall be of an approved source and manufactured semi-solid or with solid core construction as described and in accordance with BS. 459 (Part 2) finished with 6mm approved plywood for painting and lipped all round with hardwood 12mm thick, with or without vision panels.
- Y. The thickness stated is the overall finished thickness. The Contractor is to provide a sample leaf and frame with ironmongery fitted, for the approval of the Project Officer Following approval, the sample to be incorporated into the works. Approvals shall be confirmed prior to placing of main orders.
- Z. Door and windows are to be as detailed on the Project Officer 's Drawings or as described. The standard of workmanship and finish is required to be of a high standard acceptable to the Project Officer. A sample of a door, frame and window shall be presented to the Project Officer for approval before full production commences.

AA. The order to proceed will be given to the Contractor only after the sample has been approved by the Project Officer. Consequently, manufactured doors and windows must be of the equivalent standard to the approved sample. Failure satisfy these criteria will lead to the rejection of the doors and windows.

Ironmongery

- BB. All ironmongery shall be fixed with matching screws. Before the woodwork is painted, handles shall be removed, carefully stored and refixed after completion of painting and locks oiled and left in perfect working order. All lays shall be labelled with door references marked on approved labels before handing over to the Project Officer on completion.
- CC. Ironmongery shall be manufactured by SCHLAGE (Lp series heavy duty 93 range) or HAGER or VON DUPRIN where so described or equivalent.
- DD. Range (to Architect's approval) to be stainless steel heavy duty 93 lever range, including all door furniture accessories (i.e., including, but not limited to hinges, levers, locks, kick-plates, self-closers, signage).

Pricing

EE.Prices for Carpentry and Joinery shall include for all considerations arising from the specification, noted from the design drawings and reasonably inferred from the site conditions.

TECHNICAL SPECIFICATION FOR CONSTRUCTION

METALWORK

Generally

A. All materials shall be the best of their respective kinds and free from defects. All work shall be carried out in a workmanlike manner and strictly as directed by the Project Officer. The

material in all stages of transportation, handling and storage shall be kept clean, free from injury and breaking and distortion.

Metalwork

B. Metalwork shall comply with BS 4360 and BS 4 of the grade specified.

Angles etc.

C. Hot-rolled steel sections shall conform to BS 4, Part 1.

Hollow Sections

D. Hot-rolled hollow steel sections shall conform to BS 4848 (Part 2).

Nails, Bolts etc.

E. Nails, bolts etc., shall be the best quality mild steel or wrought iron of lengths and weighs approved by the Project Officer.

Welding

F. Welding shall be neatly executed, filed smooth and left clean and shall comply with BS 449.

Doors

- G. Interior face panels to be 18 GA. level, cold rolled steel, to ASTM Designation A366-72, and free of scale, pitting or other surface defects. Panels to be zinc-coated, and paint treated for paint adhesion. Exterior door face panels to be 18 GA. as above.
- H. Double swing doors to be bevelled 1/8" in 2".
- I. Clearances between door and frame 1/8" max., at head and jambs 3/8", under door no threshold 3/8" max., under door over threshold 1/4" max.
- J. Doors shall be of seamless construction with no visible seams or joints on their faces or vertical edges; free from warp or buckle, with corners true, straight and square.
- K. Door faces shall be joined at their vertical edges by a continuous weld extending the full height of the door. All such welds shall be ground, filled and dressed smooth to make them invisible and provide a smooth flush finish.

Doors and Windows

- L. Reinforcement for hardware; doors and frames shall be mortised and reinforced for hardware as scheduled. Reinforcement shall be as follows:-
 - hinge reinforcement: 7 GA.
 - locks, flush bolts, closers: 12 GA.
 - surface mounted hardware: 16 GA.

Frames

- M. Frames shall be of commercial grade cold rolled steel, to ASTM A366-72. Interior frames shall be 16 GA. min: exterior grade shall be 14 GA. min. All frames to be zinc coated.
- N. Finished work to be strong and rigid, square, true and free of defects, warp or buckle. Members shall be of uniform profile throughout their lengths.
- O. Welds on exposed surfaces shall be ground smooth and flush.
- P. Minimum depth of stops to be 5/8".
- Q. Reinforcement: frames shall be mortised and reinforced to receive hardware as specified; surface mounted hardware is to receive reinforcing plates only. Reinforcing plates shall be as follows:
 - hinges 7 GA
 - strikes 12 GA.
 - flush bolts 12 GA.
 - closer 12 GA.
 - surface mounted hardware (general) 12 GA.
- G. Floor anchors shall be 14 GA. min., with two fixings to floor and frame.

H. Frames for installation in masonry walls shall be provided with "T" shaped adjustable jamb anchors, not less than 2" x 10" in size corrugated or perforated. Three anchors shall be provided per side to frames to 2 metres high; add one anchor per 800mm over.

- I. Frame anchoring to existing masonry or concrete shall be as described.
- J. Frames over 1200 wide shall have a full width angle or channel stiffener welded into frame head. (Note: this is not to serve as a lintel or load bearing member).

Windows

R. Aluminum windows shall be supplied and installed by an approved specialist subcontractor in accordance with the drawings. All dimensions shall be verified on site before proceeding with the Works. A minimum five (5) year warranty for materials and workmanship shall be provided in the name of the Employer

Samples and Approvals

- S. Door and windows are to be as detailed on the Project_Officer 's Drawings or as described. The standard of workmanship and finish is required to be of a high standard acceptable to the Project Officer.
- T. A cut-sheet and any relevant product information of the proposed doors and windows shall be submitted with the Tender for approval by the Project Officer.
- U. A sample of a door, frame and window shall be presented to the Project Officer for approval before full production commences. A control sample is to be left on-site for the duration of the works.
- V. The order to proceed will be given to the Contractor only after the sample has been approved by the Project Officer. Consequently, manufactured doors and windows must be of the equivalent standard to the approved sample. Failure satisfy these criteria will lead to the rejection of the doors and windows.

Pricing

W. Prices of Metalwork shall include for all considerations arising from the specification, noted from the design drawings and reasonably inferred from the site conditions.

TECHNICAL SPECIFICATION FOR CONSTRUCTION

FLOOR, WALL & CEILING FINISHINGS

FLOORS

Screeds

A. Screeds to be composed of cement and sand 1:4. Surfaces of site slab shall be thoroughly brushed clean of all foreign matter and well soaked prior to laying of screeds together with the use of an appropriate bonding agent in accordance with the manufacturer's instructions. Minimum thickness of screed shall be 25mm; otherwise, an approved bonding / reinforcing additive is to be utilized in the mixture in strict accordance with the manufacturer's instructions.

Levels Generally

B. Ensure that the levels of the floor within one area and between adjoining areas are constant unless specifically described or shown to be otherwise. Make up for any variations in the thickness of precast or pre-moulded floor finishings and irregularities in the surface of the structural base by adjusting the thickness of the screed as necessary.

WALLS

Rendering

- C. Mix rendering composed of one-part cement and five parts sand with a plasticiser additive at the rate of .14 litre of plasticiser to every bag of cement.
- D. Proportion materials by measure and not by estimation and proper approved measuring boxes must be provided for this purpose. Make up mix on site in a close boarded wood platform with upstand edges and thrice turn over mix while water is being added through a rose director and use immediately thereafter.

E. Where approved mechanical batch mixers are employed rotate each batch in the drum at least two minutes and use immediately thereafter.

WALLS

Rendering

- F. Thoroughly wash out all platforms and mixers at the cessation of work each day and as necessary during the working hours.
- G. Mix only quantities which can be used at once and reject rendering which has begun to set before being required.
- H. Carefully float all work and finish to a minimum thickness of 12mm with surfaces perfectly flat to stand the straight edge every way, free from all cracks and leave perfectly clean.
- I. "Throw" all rendering and plaster on the wall and give the minimum of "working" to ensure a plumb and even finish.
- J. Wherever possible complete each section of walling in one operation, but where this is not possible the existing edge shall be well hacked and wetted before recommencing operations. Throughout the whole of the Works order suffice sand to prevent any discrepancy between the quality and colour of different rendering.
- K. Allow for preparing and wetting all surfaces prior to commencement of all operations, for any additional thickness required in dubbing out and for working around and behind pipes with their connections and fixtures.

Wall Tiles

L. Glazed wall tiles shall conform to B.S. 1281:1974 and be true to shape and free from all blemishes and crazing.

M. Fix with an approved waterproof adhesive in accordance with the manufacturer's instructions to form a true level surface. On no account will any tile out of line with its neighbours be accepted. Point joints of tiles in cement of a colour to match tile and clean down on completion.

CEILINGS

Rendering

N. Mix and application shall be as described for walls.

Ceiling tiles

O. The suspended ceiling shall be size 24" x 24" (imperial sizes not metric equivalent) fine texture angled edge mineral fibre tile with a factory applied vinyl latex paint surface finish in a 15/16th inch white grid (Armstrong Dune 1774 Tile and Prelude grid or approved equal) with the following properties:

Light reflectance : LR 0.83 (83%) minimum per ASTM E 1264 Surface burning : Class A per ASTM E 1364 and Fed. Spec Characteristics : SS-s-118B Flame 25 or under VL labelled Fire resistance rating : Fire resistive Insulation value : Average R factor (at 75°F) is 1.5

CEILINGS

Gypsum Plasterboard for ceilings

- P. Gypsum plasterboard shall be wall boarding of best imported quality to B.S. 1230:1970 and finished smooth for painting.
- Q. Joints shall be taped and plastered with gypsum paste to achieve a smooth finish. Gypsum plasterboards shall be supported on an approved suspension system which shall support the ceiling assembly with a maximum deflection of 1:360 of the span.

Pricing

R. Prices of Floor, Wall and Ceiling Finishings are to include for all considerations arising from the specification, noted from the design drawings and reasonably inferred from the site conditions.

TECHNICAL SPECIFICATION FOR CONSTRUCTION

PAINTING AND DECORATING

Generally

- A. All materials used, unless otherwise stated shall be anti-fungus and approved by the Project Officer.
- B. Supply paints on site in sealed cans and all thinning, mixing etc., shall be in accordance with the manufacturer's instructions.
- C. Produce vouchers as and when required by the Project Officer to prove to his satisfaction that all materials supplied are genuine and as specified herein.
- D. Any paint system used must be met with the approval of the Project Officer. The same applies to the colour scheme. Thinning of paints will not be permitted.

Preparation and application

- E. Thoroughly dust and clean down all surfaces to be painted, cut out cracks, stop holes and clean steelwork rust in accordance with approved practice.
- F. Apply paint by brush, roller or spray with the minimum of dilution.

- G. Strain the prepared paint free from skins and similar impurities immediately before application.
- H. Allow to dry and well rub down each coat of paint before the next is applied and no two successive coats shall be to the same tint.
- I. No paint shall be applied to a damp surface, and no external painting shall be carried out during wet weather.
- J. On no account allow employees to empty washings or painting materials into sanitary fittings or drainage systems so provide a suitable receptacle outside the building to receive same.
- K. All surfaces should be prepared for painting in accordance with the printed directions and recommendations of the approved manufacturer. Where required, a copy of the manufacturer's written instructions for each type of paint used is to be provided. The importance and necessity of proper surface preparation cannot be overstated and the Contractor is to strictly follow specifications. For masonry surfaces, where flaking has occurred, unsound areas are to be removed by wire brushing, and the surface bind-coated with masonry sealer. Regular adhesion tests should be carried out on the remaining old paint to ensure sufficient adhesion. Where the old paint lifts off on a layer, it is to be removed until a firm edge is obtained. Thick edges must be feathered for a good finish. Cracks and other imperfections are to be repaired with approved filler. For metal, loose and flaking material is to be removed, the surface cleaned and rubbed down before painting, and patch-primed with the appropriate primer.
- L. All surfaces to be painted must be cleaned, smooth, dry and free of foreign materials and rust. Surface is to be cleaned, using a mild detergent solution. Surfaces showing fungus must be treated using an approved fungicide.

Brand names

M. The paints which are acceptable in these Works are those available from local suppliers and approved by the Project Officer. Prepare surfaces and apply paints in strict accordance with the specification of the manufacturer of the brand approved.

Pricing

C. Prices of Painting and Decorating are to include for the following:

1. All considerations arising from the specification, noted from the design drawings and reasonably inferred from the site conditions.

2. Varying colours in areas in accordance with the Project Officer's colour schemes.

3. Preparing fairly large sample panels (*exceeding 16 square feet*) of finishing colours as and when directed by the Project Officer.

TECHNICAL SPECIFICATION FOR OUTFITTING

- Electrical Equipment and Appliances
 - (10) Laptop Computers- This space/s; at a minimum, must be outfitted with aforementioned item in accordance with the following assumptions:
 - RAM: 16GB 2400MHz DDR4
 - Processor: Intel® Core™ i5-10210U up to 4.2GHz 10th Gen processor (4 cores, 8 threads, 6MB cache), Intel UHD Graphics, 2666MHz DDR4 memory controller.
 - Display and features: 13.3" (338mm) FHD (1920x1080), anti-reflection, LED backlight
 - Graphics Controller: Intel UHD Graphics in processor
 - Warranty: Three (3) years warranty on parts and labour, One (1) year on battery, Next Business Day
- Projector Epson PowerLite S41+ Projector.

Schedule 111(b)

Cover Page/Form of Tender

The Administrator

Date:

Division of Sport and Youth Affairs

Dear Madam,

Having read the Tender documents including the annexures thereto, and having fully satisfied ourselves as to the nature of the requirements of the Division, we hereby offer to supply the goods and services for

	Insert name of project
At a contract sum of (\$)
(Figure in words)	
VAT exclusive.	
And a Duration of	Calendar Days.
Please find attached the follow	ving documents are per the tender submission requirements –
(a) Certificate of Incorpo	ration/Registration
(b) Notice of Directors	
(c) Utility Bill and Notic	e of registered address
(d) Valid VAT and BIR (Clearance certificates
(e) Cover Page	
(f) Two (2) past contract	s/letters of award of works of a similar nature
(g) Two (2) reference let	ters
(h) Financial Documents	
(i) Methodology Approa	ch
(j) Work Schedule	
(k) Key Personnel Propos	sed
(l) Scope of Works	
(m) Conceptual Prelimina	ry Design
(n) Price Proposal/Bill of	Quantities
	······
Authorized Representative	
For and on behalf of	Seal

Schedule IV (a)

Statutory Declaration (Company)

REPUBLIC OF TRINIDAD AND TOBAGO

IN THE MATTER OF THE STATUTORY DECLARATIONS ACT CHAPTER 7:04

I, Director

(Name of director)

And authorized representative of (Name of company)

A company duly incorporated and continued under the Companies Act 1995, with its registered

Office situate at ______(Address of company)

The Island of Tobago/Trinidad in the Republic of Trinidad and Tobago, make oath and say as follows:

> 1. I am the authorized representative of

(Name of Company)

And

duly authorized to give this declaration on its behalf.

- 2. The facts hereto deposed are true and correct and within my personal knowledge and belief save where otherwise stated to be based on information, in which case I verily believe same to be true and the source reliable.
- I hereby certify that any signed contracts/letters of award of purchase orders that has 3. been submitted from me is a true representation of works the Tenderer have undertaken and that the Tenderer was not terminated for any reason related to and

or ancillary to material non – performance. A true copy of the contract(s) is now produced and shown to me and marked "A".

- 4. I have had my Attorney-at-Law explained to me and I fully understand the consequences, ramifications and implications of the aforesaid declaration.
- 5. I have deposed this declaration of my own free will, voluntarily and as a free and independent person without any threats, intimidation, promises and or inducement from anyone and after receiving legal advice and I hereby declare that I am mentally sound and in full control of my mental capacity, mind and body.
- 6. I, make this declaration conscientiously believing the same to be true and according to the Statutory Declarations Act, and I am aware that if there is any statement in this declaration which is false in fact, which I know or believe to be false or do not believe to be true, I am liable to fine and imprisonment

Declare	ed at)	
This	day)	
Of	•	2020)	
				D.f.

Before me,

COMMISSIONER OF AFFIDAVITS

Schedule IV (b)

Statutory Declaration (Individual)

REPUBLIC OF TRINIDAD AND TOBAGO

IN THE MATTER OF THE STATUTORY DECLARATIONS ACT CHAPTER 7:04

	0
(Occupation)	0
(Address of person)	
	(Occupation) (Address of person)

The Island of Tobago/Trinidad in the Republic of Trinidad and Tobago, make oath and say as follows:-

- The facts hereto deposed are true and correct and within my personal knowledge and belief save where otherwise stated to be based on information, in which case I verily believe same to be true and the source reliable.
- 2. I hereby certify that any signed contracts/letters of award of purchase orders that has been submitted from me is a true representation of works undertaken for me and further that the Tenderer was not terminated for any reason related to and or ancillary to material non performance. There is now produced and shown to me a true copy of the contract(s) hereto annexed and marked "A".
- 3. I have had my Attorney-at-Law explained to me and I fully understand the consequences, ramifications and implications of the aforesaid declaration.

- 4. I have deposed this declaration of my own free will, voluntarily and as a free and independent person without any threats, intimidation, promises and or inducement from anyone and after receiving legal advice and I hereby declare that I am mentally sound and in full control of my mental capacity, mind and body.
- 5. I, make this declaration conscientiously believing the same to be true and according to the Statutory Declarations Act, and I am aware that if there is any statement in this declaration which is false in fact, which I know or believe to be false or do not believe to be true, I am liable to fine and imprisonment

Declare	ed at)	
This	day)	
Of		2020)	
				Before me,

COMMISSIONER OF AFFIDAVITS

Schedule V

Reference Report

	v						
Name of Entity:		Contact Person:					
		En	nail	:			
Address:				•			
		Ph	Phone:				
Scope of Works:							
Name of Vendor:							
Address:							
Estimated Start date:	Actual Start date:	Est contract sum:			tract sum:		
Estimated End date:	Actual End date:	Act contract Sum:			tract Sum:		
KEY – E: <i>Excellent</i> S: <i>Satisfact</i>	tory U: Unsatisfactory	N:	N/A]	I: Ins	ufficient info to rate
Description		Performance Rating			nce		Comments (attach as necessary)
		E	S	U	N	Ι	
Work performed in compliance with contract terms and specs							
Materials, supplies and equipment provided as required							
Staff availability							
Timeliness of work							
Staff professionalism							
Customer Service							
Quality of Work							
Communication and Accessibility							
Prompt and effective correction of situations							
Proper documentation and records							

OVERALL PERFORMANCE Excellent Satisfactory Unsatisfactory

Yes

No

Would you recommend using this Firm again

[Explain]
VENDOR REPLY – Vendors are provided with the opportunity to reply to this performance appraisal undertaken. Please attach reply if any.
