



**Government of the Republic of Trinidad and Tobago**  
Ministry of Sport and Youth Affairs

**TENDER DOCUMENT**

**FOR THE**

**PROPOSED UPGRADES OF OUTDOOR CHANGE ROOMS AND  
PERIMETER WALL,**

**AT THE WOODBROOK YOUTH TRAINING FACILITY,  
PORT-OF-SPAIN**

**FOR**

**THE GOVERNMENT OF THE REPUBLIC OF  
TRINIDAD AND TOBAGO**

The Ministry of Sport and Youth Affairs invites tenders for the following Project:

#	Project Facility	Name of Tender	Mandatory Pre-Submission Briefing/Site Visit	Closing Date/Time
1	Woodbrook Youth Facility	Upgrades to Outdoor Change Rooms and Upgrades to Perimeter Wall	Monday 6th May, 2019 3:00 p.m.	Thursday 16th May, 2019 3:00 p.m.

**ELIGIBILITY**

Submission of tenders is open to all contractors registered in Trinidad and Tobago who possess the expertise, experience and financial resources to undertake selected project(s).

Only Proponents signing the Attendance Register at the respective Mandatory Pre-Submission Briefing/Site Visit and submitting valid Mandatory Statutory Certificates (Income Tax Certificate, VAT Certificate and National Insurance Board Compliance Certificate) will qualify to be evaluated.

**EVALUATION CRITERIA (TECHNICAL/FINANCIAL)**

Tender submissions will be evaluated according to the following basic criteria:

- i. Proposed Implementation Time (10 pts. Max)
- ii. General Background of the Firm (5 pts. Max)
- iii. Performance History (10 pts. Max)
- iv. Work Experience of the Firm in performing services for projects of similar nature (10 pts. Max)
- v. Methodology and Work Plan (10 pts. Max)
- vi. Curricula Vitae of Proposed Key Professional Staff (5 pts. Max)
- vii. Fee (30 pts. Max)
- viii. Financial Capability of the Firm (20 pts. Max.)

Proponents are advised that Tender Documents will be available from Friday 26<sup>th</sup> April, 2019:

- From the Ministry of Sport and Youth Affairs' website at [www.sport.gov.tt](http://www.sport.gov.tt)

Contractors are required to submit One (1) printed Original of the Proposal comprising a Technical Proposal and a Financial Proposal, in a sealed envelope properly labelled with the Name of Tender.

Complete Proposals must be addressed to:

Permanent Secretary  
Ministry of Sport and Youth Affairs  
#2 Elizabeth Street, St. Clair, Port-of-Spain

Sealed packages must be placed in the appropriately marked tender box, located in the Procurement Unit, 3<sup>rd</sup> Floor of the Ministry of Sport and Youth Affairs, #2 Elizabeth Street, St. Clair, Port-of-Spain. Late submissions will not be considered. Tender submissions will not be accepted electronically.

It shall be noted that:

- i. The Ministry of Sport and Youth Affairs reserves the right to cancel the present tender process in its entirety or partially, without defraying all costs associated with the preparation and submission of the Proposal;
- ii. The Ministry of Sport and Youth Affairs does not bind itself to accept the lowest price of any Proposal submitted.

Further information or clarification can be obtained from the Procurement Unit, at the Ministry of Sport and Youth Affairs Telephone 1 868 – 628 - MSYA (6792) Extensions 5101, 5102 or 5103.

Permanent Secretary  
Ministry of Sport and Youth Affairs  
26<sup>th</sup> April, 2019

# **PROPOSED UPGRADES OF OUTDOOR CHANGE ROOMS AND PERIMETER WALL AT THE WOODBROOK YOUTH FACILITY, PORT-OF-SPAIN**

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### **3.0 WORK TO BE DONE**

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### **5.0 TECHNICAL AND FINANCIAL SPECIMEN FORMS\***

Form 1: Appendix to Tender

Form 2: Form of Tender

Form 3: Applicant Information Sheet

Form 4: Work Experience of Firm

Form 5: Similar Type of Works

Form 6: General Background and Organization

Form 7: Methodology and Work Plan

Form 8: Curricula Vitae for Proposed Key Professional Staff

**\*ALL FORMS ARE TO BE FILLED OUT AND RETURNED IN THE PROPOSAL**

# **1.0 PRELIMINARIES AND GENERAL CONDITIONS**



**Government of the Republic of Trinidad and Tobago**  
Ministry of Sport and Youth Affairs

**NAME OF PROJECT:** PROPOSED UPGRADES OF OUTDOOR CHANGE ROOMS AND PERIMETER WALL AT THE WOODBROOK YOUTH FACILITY, PORT-OF-SPAIN

**EMPLOYER:** Permanent Secretary  
Ministry of Sport and Youth Affairs  
#2 Elizabeth Street  
St Clair

**PROJECT MANAGER:** Project Management Unit  
Ministry of Sport and Youth Affairs  
#2 Elizabeth Street, St Clair  
Port-of-Spain

Or any other person/s authorized to act on their behalf

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# **PRELIMINARIES AND GENERAL CONDITIONS**

## **Description of Works**

The work entails upgrades to the electrical installations throughout the facility and repairs and installation of additional security lighting on the compound.

## **Scope of Works**

The works comprise the following:

1. Plumbing and Lighting Installations.
2. Installation of ceramic wall tiles in outdoor change rooms.
3. Replacement of netting over openings in outdoor change rooms.
4. Painting of perimeter wall and metal gates.
5. Replacement of galvanize roof sheets.
6. Replacement of defective barbed wire on perimeter wall.
7. Installation of galvanize wall spikes on top of perimeter wall.
8. Demolishing and construction of specified areas of perimeter wall.
9. Repairs to wall of outdoor change room.

## **Location of Site**

The site of the proposed works is located at Woodbrook Youth Facility, Port-of-Spain.

## **Possession of site**

To be agreed upon the Award of Contract. The works shall be executed in a manner to cause the least disturbance to the other operations on the site. An area for the storage of material would be identified in consultation with the Facility Manager or his representative.

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# PRELIMINARIES AND GENERAL CONDITIONS

## INSTRUCTIONS TO TENDERERS

A. (Tenderers are advised to read all instructions carefully. Failure to follow these instructions may result in rejection of your offer).

1. Tenders must be accompanied by a valid up-to-date Income Tax Clearance Certificate issued by the Board of Inland Revenue.
2. Tenderers who are registered for Value Added Tax must:
  - a. Provide a valid up-to-date Value Added Tax Clearance Certificate.
  - b. Show the tax separately below the tender price.
3. Tenderers are advised to note:
  - a. Where a person or firm imports goods that are exempt from payment of Customs Duty, under Item 20 of the 2nd Schedule of the Customs Ordinance, Value Added Tax shall not be charged upon the entry of the goods so imported or taken out of bond, by or on behalf of the Central Government for its own use;
  - b. The treatment of Value Added Tax on the supply of goods ex-stock and, as well services in Trinidad and Tobago to the Central Government will remain the same, subject to the rate of tax appropriate to such supplies.
4. Tenderers must provide the following in their tender:
  - a. An assurance that prices would remain valid for an initial minimum period of ninety (90) days from the closing date of tender.
  - b. A firm delivery period.
  - c. Guaranteed offer.

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# PRELIMINARIES AND GENERAL CONDITIONS

## INSTRUCTIONS TO TENDERERS

- A. **Text to be definitive**  
Do not alter, add to or modify the text of the specifications as this will not be recognized or taken into account and could lead to a disqualification of the tender. If the Tenderer wishes to make an observation as to the printed text in connection with the rates or prices he had inserted, such observation shall form the subject of a separate letter to accompany his tender.
- B. **Pricing**  
Price in ink each item in the specification which is considered to have a money value. If the Tenderer omits to price any item it will be deemed that either he will perform the services described free of charge or that the cost of such services has been included against items appearing elsewhere in the specification.
- C. Prices inserted unless otherwise stated, shall be deemed to include for all duties, taxes, materials, plant and tools, transportation, labour and supervision and all other costs necessary for the timely execution of the works.
- D. Prices are to be submitted in Trinidad and Tobago Dollars (TT \$) and exclusive of Value Added Tax. This is to be stated along with tender submission to ensure clarity in interpretation of prices.
- E. **Fluctuations**  
No adjustment will be made for cost increases/decreases which take place during the period stipulated for carrying out the works except the same are as a consequence of the introduction of or changes to statutory regulations.
- F. **Queries**  
The Tenderer shall refer all queries arising out of this tender to the Procurement Unit's Representative whose decision for the purpose of tendering shall be final.
- G. Queries shall be raised not later than five (5) days before the closing date of tenders, so as to permit the circularizing of the replies to all tenderers, if this is considered necessary.

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# PRELIMINARIES AND GENERAL CONDITIONS

## INSTRUCTIONS TO TENDERERS (Continued)

- A. **Time**  
Time is of the essence in this contract so that the agreed date of completion must be adhered to.
- B. **Submission**  
Tenderers must submit the Tender Document duly priced with the completed Form of Tender in a sealed envelope all in accordance with the instructions as outlined in the invitation to tender and including the following.
- C. The full name, signature, office and business address of the Tenderer.
- D. Signature of the person making the offer, or in the case of a Company, partnership or business firm, by a duly authorized officer or employee of such company, partnership or the business firm.
- E. The initials of the person making any offer must be inserted next to any alterations to include clause for correction or erasures made or in the case of a company, discount offered (if any).
- F. **Errors**  
The Tender will be checked for arithmetical errors and corrected and the Tender sum adjusted accordingly and with the concurrence of the Tenderer shall be considered to be binding on the Tenderer. If the Tenderer shall not accept the corrected amount, his tender will be rejected and the next lowest Tenderer will be offered the same opportunity. The foregoing is subject to the Employer's right not to accept the lowest or any tender.

Where errors are discovered after acceptance of the Tender, the Tenderer would be deemed to have stood by his accepted corrected tender sum. For the purposes of administering the contract and for interim payments and settlement of accounts, all rates or prices (excluding preliminary items, prime cost and provisional sums) inserted therein by the Tenderer will be reduced or increased in the same proportion as the corrected total of priced items exceeds or falls short of the original total of such items. Alternatively, by agreement with the Tenderer, the total net error shall be added to or deducted from the total shown against Preliminaries, so that the tendered sum remains the same.

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# PRELIMINARIES AND GENERAL CONDITIONS

## INSTRUCTIONS TO TENDERERS (Continued)

A. **Acceptance/Rejection of Tenders**

The Employer reserves the right to reject any Tender which does not provide satisfactory evidence that the Tenderers has the technical, physical and financial resources to complete the works within the specified contract period.

B. The Employer may declare the Tendering void when none of the Tenderers meet the intent of the specification or when it is evident that there has been collusion. In addition, all Tenderers may be rejected if they are substantially higher than the official budget approved by the Employer.

C. **Cost of Bidding**

The Tenderer shall bear all costs associated with the preparation and submission of his bid and the Employer will in no case be responsible or liable for these costs regardless of the conduct or outcome of the tendering.

D. **Works Programme**

(i) The Tenderer shall prepare and submit with his Tender a Draft Programme of the works for approval by the Project Engineering Technician.

(ii) The works shall be executed in a manner to cause the least disturbance to users of the facilities.

(iii) Tenderer to submit a Method Statement for the Works.

E.

**Contents of Tender Documents**

The tender documents issued for the purpose of soliciting tenders includes:

- a. Scope of Works
- b. Instructions to Tenderers
- c. Conditions of Contract
- d. Specifications
- e. Form of Tender

F.

The Tender is expected to examine carefully all instructions, conditions, forms and terms. Failure to comply with the requirements of bid submission will be at the Tenderer's own risk.

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# PRELIMINARIES AND GENERAL CONDITIONS

## CONTRACT PARTICULARS

- A. **Form of Agreement and Conditions of Contract**  
The Articles of Agreement and General Conditions of Contract will be the FIDIC Short Form of Contract, a copy of which is available at the Legal Unit of the Ministry of Sport and Youth Affairs.
- B. A copy of the Form of Contract may be inspected at the Legal Unit by appointment during normal working hours.
- C. **Terms and Conditions for Labour and Materials**  
Works are to be executed between the hours of 8:00 a.m. and 4:00 p.m. unless further agreed to with the Ministry of Sport and Youth Affairs and in a manner not to hinder the movement of local pedestrian and vehicular traffic. That the Ministry of Sport and Youth Affairs will in no way be liable for any damages which may be caused to utility lines, premises etc, and it will be your responsibility to repair/replace same without any inconvenience to the person/persons concerned.
- D. The price quoted shall be deemed to be in Trinidad and Tobago currency. Prices quoted shall be deemed to include for the provision of all labour, plant for transport for deliveries to site, for temporary storage of materials and plant for transport, for the erection, maintenance and removal of scaffolding, temporary stagings, protection etc. and for all things necessary for the completion of the works in accordance to the reasonable satisfaction of the Employer
- E. That you adhere to the minimum wages bill and fair wage clause.
- F. **Contingency Sum**  
Contingency sum is required as per the General Summary. This sum is to be expended at the sole discretion of the Engineering Technician.
- G. Contingency items to be agreed with the Ministry of Sport and Youth Affairs before implementation.
- H. **Insurance**  
The Contractor shall provide all necessary insurance or indemnify against:-
1. Injury to persons or property
  2. Workmen compensation.
  3. Fire.
  4. Theft.

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# PRELIMINARIES AND GENERAL CONDITIONS

## SITE PARTICULARS

- A. **Site Visit**  
The Contractor is advised to visit the site and ascertain the nature of work to be done, means of access and egress, the availability and positions of essentials services, viz, electricity, water etc., condition of the site, working space and storage of materials and allowance is to be made in the tender for all such factors which may affect execution of the works.
- B. The Contractor is to note that electricity and water are available for use during the works.
- C. **Protection of Public and Private Services**  
The Contractor is to protect, uphold, temporarily divert and maintain all pipes, ducts, drains sewer, service mains, overhead cables and the like during the execution of the works. The Contractor is to make good any damage due to any cause within his control at his own expense or pay any costs and charges in connection therewith. Approval shall be obtained at least at two weeks in advance if any services have to be interrupted.
- D. **Siting of Temporary Works and of Permanent Spoil Disposal**  
Obtain the approval of the employer to the siting of permanent spoil disposal and of the proposed siting of materials, of temporary spoil and rubbish deposits and of temporary buildings, temporary roads and the like.
- E. **Temporary Road**  
The Contractor shall provide, maintain and alter as necessary all temporary roads, tracks, paths, hard standings, pavement crossings, temporary works and the like. Reinstate the ground and all the work disturbed.
- F. **Temporary Water Disposal**  
Provide and maintain temporary gutters, channels, drains and the like from the disposal of surface and other water. Alter, shift and adapt from time to time as necessary.
- G. **Safety, Health and Welfare of Work People**  
The Contractor is to provide a safe environment for his work people and other users of the compound and members of the public and appropriate personnel protective equipment for his employees. The Contractor is to comply with all the requirements of the Occupational Safety and Health Act No. 1 of 2004 as amended and as pertaining to these works.

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## PRELIMINARIES AND GENERAL CONDITIONS

### MATERIALS AND WORKMANSHIP

- A. **Best Quality**  
Materials and workmanship are to be of the best quality of their respective kinds, for which there is a British Standard or Code of Practice are to conform thereto unless otherwise stated. Workmanship is to conform to sound building practice unless otherwise described or shown.
- B. **Defective Work**  
Any defective materials or substandard workmanship not in accordance with this contract shall be removed and replaced at the Contractor's own expense.
- C. **Apply Throughout**  
Descriptions of materials and workmanship given in any one Section are to apply throughout the Specification unless otherwise described.
- D. **Brand Names**  
Where materials are described by brand or trade names, such names are given as indication of type, quality etc., allow in tendering for these particular materials but alternative may be used with the Employer's approval. If approval is not given the materials described herein must be provided.
- E. All branded materials shall be used strictly in accordance with the respective manufacturer's recommendations and instructions. The Contractor shall be responsible for obtaining from manufacturers all relevant details regarding the use of their products. The Contractor shall bring immediately to the attention of the Employer any difference between the manufacturer's recommendation and the Specification given herein for a decision on which is to take precedence.
- F. **Provide as Necessary**  
Provide as necessary all materials required for the proper execution and completion of the works.
- G. Ensure that all materials will be available from stock and if this is not the case, make arrangements for deliveries so that no delay is occasioned due to the non-availability of materials.

To Collection \$ \_\_\_\_\_

# PRELIMINARIES AND GENERAL CONDITIONS

## MATERIALS AND WORKMANSHIP (Continued)

- A. **Samples**  
Samples of materials, colours, panels or sections of finished work, etc., shall be provided without charge, to the Employer for approval, if required. Keep approved samples on site in an approved position for use as a reference by craftsmen. No material or workmanship which in the opinion of the employer is of a lower quality than the approved sample will be accepted by the Employer.
- B. **Tests**  
The Contractor's attention is drawn particularly to the requirements described in the Materials and Workmanship Section of the Bills of Quantities. Provide materials for and carry out tests as and when directed by the Employer. If the results of any tests are unsatisfactory bear the cost of any resulting reconstruction which may be ordered by the Employer.
- C. **Rejected Material**  
Materials required to be incorporated into the permanent and finished construction works shall on no account be used for temporary works.
- D. Materials or goods rejected by the Ministry's Representative as unsuitable for incorporation into the works shall immediately be removed from the site.

## LABOUR

- E. **Provide as Necessary**  
Provide as necessary, all skilled, semi-skilled and unskilled labour required for the execution and completion of the works. Workmanship is to be of the best quality throughout, to the reasonable satisfaction of the Employer.
- F. **Availability**  
Ensure that all labour will be available for the works and allow in tender for the additional cost of any importation of labour from other districts that may be deemed necessary.

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# PRELIMINARIES AND GENERAL CONDITIONS

## MATERIALS AND WORKMANSHIP (Continued)

- A. **Fringe Benefits**  
Allow for all costs in respect of National Insurance, Vacation and Public Holiday Leave, Sick Leave, Cost of Living Allowance, Subsistence Allowances, traveling time and expenses and all other emoluments and expenses payable to or in connection with the employment of persons for the works.
- B. Comply with local regulations in force relating to the welfare of work-people on the site or in places where work is being prepared for incorporation into the works and keep and maintain, at all times, an adequate First Aid Kit on the site.
- C. **Overtime**  
No work is to be executed outside normal working hours without the prior consent of the Employer. Include in the tender for any overtime work which may be considered necessary in order to complete the Works by the agreed date.
- D. **Supervision**  
Provide a competent foreman-in-charge and all other site staff, necessary of the proper supervision of the works. Any instructions given by the Ministry's Representative to the foremen-in-charge shall be deemed to be given to the Contractor.

## TRANSPORT

- E. Provide all necessary transport for labour and plant.

## PLANT, TOOLS AND VEHICLE

- F. Provide all mechanical and non-mechanical plant necessary for the proper execution of the works.
- G. Provide and install all necessary hoists, ladders, tools and other plant and vehicle and allow for altering, adapting and maintaining them as necessary and remove when no longer required.
- H. Provide all surveying instruments, temporary benchmarks and labour for setting-out and leveling.

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# PRELIMINARIES AND GENERAL CONDITIONS

## MATERIALS AND WORKMANSHIP (Continued)

- A. **General scaffolding**  
Provide all necessary temporary scaffolding for the proper execution and completion of the contract and alter, shift and adapt from time to time as necessary. Re-erect, at own expense, if so required, any scaffolding which has been struck before ascertaining whether it is required by any sub-contractor nominated or otherwise.
- B. **Watching and Protection**  
The site of the proposed Works, except for areas within the existing building, shall be under the Contractor's sole charge from the date of possession to the date of completion of the Contract.
- C. Provide all necessary day and night watching (including Security Guards, if necessary) to effectually protect the Works and materials stored on site, including those of sub-contractors and workpeople and visitors and accept all risks for damage or loss.
- D. Provide all necessary temporary hoarding, fencing, gates, barricades, fans, planked footways, gantries, screens, etc. in accordance with the Employer's details for the protection of the work people, occupants, access roadways, adjoining property and the public and alter, adapt and maintain them as necessary and clear away on completion and reinstate all work disturbed to the satisfaction of the competent authorities. Gantries shall be construed with ramps to allow unimpeded passage to physically handicapped persons and children.
- E. **Trespass**  
Prevent any trespass by unauthorized persons on the site of the Works and any trespass on the adjoining property by own employees or those of sub-contractors and indemnify the Employer against any claims, costs or proceedings whatsoever arising out of any trespass or alleged trespass.
- F. **Attendance**  
Provide attendance upon, cut away for and make good after all trades and in all trades performed by own workmen and own sub-contractors and leave perfect on completion.

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# PRELIMINARIES AND GENERAL CONDITIONS

## MATERIALS AND WORKMANSHIP (Continued)

A. **Protection of Works**

Case up and protect all work from any kind of injury and damage. Provide all necessary temporary roofs, tarpaulins, screens, planking and general protection that may be required and clear away when no longer needed and reinstate any work which has become damaged or stained.

B. **Laws, Bye Laws, Etc.**

Allow for compliance with all Laws, Bye laws, orders, rules and regulations otherwise passed by the Government of The Republic of Trinidad and Tobago, or any department thereof, insofar as is not provided for elsewhere in the Specification.

C. Allow for compliance with any regulation made by the police for the temporary parking of vehicles and the loading and unloading of persons or goods.

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# PRELIMINARIES AND GENERAL CONDITIONS

## GENERAL MATTERS

### TEMPORARY SITE ACCOMMODATION

A. **Generally**

The Contractor in concurrence with the Engineering Technician shall select areas for all temporary buildings, office accommodation and mess rooms for staff and workmen and remove on completion as may be necessary. The ground on which temporary buildings are sited shall be made good after removal of these buildings.

B. **Toilets**

The contractor may use the toilet facilities available on site free of charge for the use of the workmen, provided that he takes care to cause the least disturbance to the operations of the facilities and makes good any damages arising out of his use of the toilet facilities. However, this concession in no way releases the contractor of his obligation to provide toilet facilities for his workmen.

C. **Water for the Works**

The contractor may use the water supply on the site free of charge provided that he takes care to cause the least disturbance to the operations of the facilities and makes good any damages arising out of his use of the water supply. However, this concession in no way releases the contractor of his obligation to provide clean water for the works.

D. **Lighting and power for the works**

The contractor may use the electric power supply on the site free of charge provided that he takes care to cause the least disturbance to the operations of the facilities and makes good any damages arising out of his use of the electric supply. However, this concession in no way releases the contractor of his obligation to provide temporary lighting and electric power for the works.

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# PRELIMINARIES AND GENERAL CONDITIONS

## GENERAL MATTERS

### TEMPORARY SITE ACCOMMODATION (Continued)

A. **Inclement Weather**

During inclement weather the contractor shall suspend all operations which may adversely be affected for such time as the Engineering Technician may direct, and effectually cover up and protect the works from injury by weather.

B. **Making Good**

The contractor is to make good at his own expense all damage to the structure, fittings and decorations resulting from the operations.

C. **Clear Away and Clean Down**

Clear away all plant and temporary work unless otherwise described or directed and make good. Clear away all existing rubbish, debris and surplus materials as they accumulate and at completion. Clean floors, paving's and all external surfaces and leave the Works clean and perfect at completion.

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# PRELIMINARIES AND GENERAL CONDITIONS

## COLLECTION

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PRELIMINARIES AND GENERAL CONDITIONS TO GENERAL SUMMARY

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## **2.0 MATERIALS AND WORKMANSHIP**

## **MATERIALS AND WORKMANSHIP**

### **PLUMBING INSTALLATION**

#### General Conditions

- A. The General Conditions shall apply to all work in this section and shall be carefully read and adhered to by the Contractor and Sub-Contractor.
- B. Ascertain the requirements of the Water and Sewerage Authority's (W.A.S.A.) regulations and all relevant Bye-laws and conform thereto.
- C. The whole of the Plumbing Installations shall be carried out by a licensed craftsmen to the entire satisfaction of the W.A.S.A. and the Engineering Technician. All pipe lengths and fittings shall be properly stored and protected and left clean and in perfect working condition.
- D. All locations and measurements are approximately correct but are understood to be subject to modifications as may be found necessary in order to meet conditions and requirements for installations prior to and/or the time of installation.
- E. Every reasonable effort shall be made by the contractor to assist other sub-contractors in the installation of their work by finishing his work at such a time so as not to interfere with other work for this project.

#### Codes, Permits, Etc.

- F. All materials furnished and work done shall comply with the Trinidad & Tobago Plumbing Code. The recommendation for the design of buildings, Plumbing and Drainage System TTS 16 90 400 Part 4: 1985 and the relevant British or Trinidad & Tobago Standard. The contractor/sub-contractor shall give all necessary notices, file all plans. Obtain all permits and pay all fees or other costs in connection with this work, and shall obtain all Certificates of Inspection, which he shall deliver to the employer.

#### Tests

- G. The entire sanitary system including all drainage, vent and leader lines shall be tested as follows and before all such work is concealed and fixtures have been set.
- H. It may be tested in its entirety or in sections with at least three (3) metre head of water. If the test shows defects or leaks they shall be corrected and the test repeated until the system is water tight.
- I. The entire water supply system shall be tested to the satisfaction of the Engineering Technician and the W.A.S.A. before all such work is concealed and fixtures have been set. It shall be tested with air and proved tight with a constant pressure of 150 PSI maintained for 30 minutes without further addition of air.
- J. After all fixtures are completely set and connected, the contractor/sub-contractor shall adjust the various supply valves, fixtures, fittings, etc. so that the proper delivery of water is obtained at all fixtures. Before work is finally completed, the contractor and/or sub-contractor shall make such additional adjustments as may be found necessary to leave the job in proper working conditions.

## **MATERIALS AND WORKMANSHIP (Cont'd)**

### **PLUMBING INSTALLATION (Cont'd)**

#### Tests (Cont'd)

- A. At this time, all fixtures, escutcheons, fittings and nameplates, pipe coverings and finishings in general shall be completely gone over by the contractor and/or sub-contractor and left in a finished and neat condition.
- B. All other tests required by the owner or authorities having jurisdiction shall be made in a manner required by them.
- C. The contractor shall at his own expense supply such equipment, appliances and apparatus to enable all tests to be effectively carried out.

#### Cleansing

- D. On completion of the works and immediately before handing over the contractor shall thoroughly cleanse the whole of the system and prove that it is functioning freely, to the satisfaction of the Engineering Technician.

#### Cutting, Patching, Repairs, Etc.

- E. Cutting of structural members shall not be done without the approval of the Engineering Technician.
- F. All patching will be done by the Contractor. The contractor shall be responsible for making good any work of other trades which is disturbed or damaged by the execution of plumbing installation.
- G. Any cutting or patching required in connection with the installation of this work, due to errors on the part of the Plumbing Contractor shall be paid for by the Plumbing Contractor.
- H. The Contractor and/or Sub-Contractor shall guarantee that all work and materials which show defects within one (1) year from the date of acceptance shall be promptly removed and replaced by him without additional cost to employer.
- I. Where such defects occur, the contractor and/or sub-contractor shall be held responsible for all costs incurred in making the defective work good and all injuries to plaster, wood or other finish caused by such replacement and repairs of defective work shall be replaced and repaired in first class condition by the contractor and/or sub-contractor at his own expense.
- J. The contractor and/or sub-contractor shall furnish certificates of guarantee from the manufacturer of specialties furnished under this contract to the effect that they will furnish new parts of apparatus where defects occur due to faulty manufacture, for a period of one (1) year from date of final acceptance.

## **MATERIALS AND WORKMANSHIP (Cont'd)**

### **PLUMBING INSTALLATION (Cont'd)**

#### Taps and Cocks

- A. Bib and pillar taps and stop cocks shall conform to BS 1010: 1959

#### PVC Pipes and Fittings

- B. Pipes and fittings for cold water installation shall be PVC-U pressure pipes equivalent to BS 3505: 1986. Care must be taken that no cold water pipes are fixed adjacent to pipes or in circumstances which will subject them to a temperature in excess of 60°C.
- C. Pipes and fittings for soil, vent and waste installations shall be unplasticised PVC equivalent to BS 4514: 1983.
- D. All PVC pipes shall be joined with solvent cement and fixed in accordance with the manufacturer's instructions. Where PVC pipes are to be connected to pipes and fittings of a different material, the correct connector shall be used as specified.
- E. All fittings shall be suitable for use with working pressures equal to or greater than those applicable to the pipe on which they are installed.

#### Pipe Supports

- F. For pipes fixed vertically, fixing shall be with approved clips not exceeding 800mm apart and secured at the base of each storey height.
- G. For above ground installation of horizontal runs of PVC pipes, there shall be at least one support hanger located adjacent to the joint. The maximum spacing between hangers shall be 3m.

#### Sanitary Fittings

- H. Sanitary Fittings shall be approved by the Engineering Technician. The contractor shall be responsible for checking that the finishes on fittings are without faults, well finished and without cracks, chips or other defects which may render them unsuitable for incorporation into the work. The contractor shall properly store and protect all fittings and use great care during fixing not to cause damage.
- I. Unless otherwise agreed, a W.A.S.A. licensed and approved plumber shall be in attendance at all times during execution of the plumbing works. The contractor will be responsible for obtaining W.A.S.A.'s approval. The contractor will be responsible for obtaining W.A.S.A.'s approval, periodic inspections and final connections.
- J. The contractor shall give all necessary notices, obtain all permits and pay all fees or other costs in connection therewith. The contractor shall obtain all certificates of inspection which must be passed on to the Engineering Technician.



## **MATERIALS AND WORKMANSHIP (Cont'd)**

### **PLUMBING INSTALLATION (Cont'd)**

#### Defects

A. Each pipe shall be carefully examined on arrival, and any defective pipe shall not be used and shall be set aside and clearly marked.

#### B. Make Good

Include in tender for fixing all pipes, fittings, sanitary appliances, etc. and for making good the surfaces to which they are affixed including forming all holes, chases, etc.

C.

#### Builder's Work in Connection

D. The materials and workmanship, required for general builder's work in connection with these installations shall be, in so far as they are applicable, all as described under the various section headings.

#### Maintenance

E. The contractor shall be responsible for maintenance of the complete installation up until the end of the defects liability period. Maintenance shall include:

i. Cleaning, lubrication and adjustment, etc. of the equipment and accessories in accordance with the manufacturer's recommendation.

F.

ii. Repair and/or replacement of any part(s) of the installation which may malfunction or prove to be defective whether under the manufacturer's guarantee or not. Repairs are to be made with a minimum of downtime for the equipment.

G.

iii. No charges whatsoever arising out of the maintenance will be accepted by the employer. Duties, transport and all other costs shall be at the contractor's expense.

#### Pricing

H. Prices for Plumbing Installations shall include:-

i. Fixing pipes complete in all locations including the provision and fixing of all clips, pipe-hooks, holderbats and brackets and making good the background to which they are fixed.

ii. Cutting pipes and for short lengths.

iii. Couplers or joints in the running lengths of pipes.

iv. Cutting pipes and making joints to fittings.

v. All considerations arising from specification.

## MATERIALS AND WORKMANSHIP (Cont'd)

### PLASTERWORK, WALLS, FLOORS AND OTHER FINISHES

#### Generally

- A. All brand materials shall be delivered to the site in their original packages, bearing the made names of the materials concerned.

#### Plasticisers

- B. Plasticiser shall be used strictly in accordance with the manufacturer's instructions.

#### Dividing Strips

- C. Dividing strips shall be black plastic or other colour approved by the Engineering Technician.

#### Rendering

- D. The mix for rendering shall contain 2L of plasticiser to every bag of cement. The proportion of materials must be measured in approved measuring boxes.
- E. Mortar mixes shall be in a 1:4 ratio of cement to sand. The platform and mechanical mixer shall be thoroughly washed at the end of each day and as necessary during working hours. Mix only quantities required and which can be used at once. Materials which have begun to set shall be rejected.
- F. The work shall be carefully floated and surfaces are to stand a flat edge each way perfectly and kept wetted to avoid cracking from too rapid drying out.
- G. Wherever possible, complete each section of walling in one operation. But where this is not possible, existing edge shall be well hacked, brushed clean and well wetted before re-starting the operation.

#### Dubbing

- H. The prices for rendering and screeding new and existing walls and floors shall include for dubbing out as necessary and for working around and behind pipes, their fittings and connections.

#### Glazed Wall Tiling

- I. The walls shall be prepared for tiling and tiles fixed in accordance with the recommendation of BS 5385: Part 1. Tiles shall be fixed to floated backings with cement and sand (1:1.5) and laid square to form a level surface.
- J. Tiles shall be well soaked in clean water immediately prior to laying. Joints shall be pointed in white cement. On no account will any tile out of the line with its neighbour be accepted.
- K. Wall tiles shall be white glazed ceramic tiles manufactured in accordance with appropriate section of BS 6431. Tiles shall be true to shape and free from all blemishes and crazing.

## MATERIALS AND WORKMANSHIP (Cont'd)

### PAINTING AND DECORATION

#### Materials

- A. All paints, undercoats, primers, varnishes, stains, polyurethane lacquers and emulsion paint must be obtained from local manufacturers – Berger Paints Trinidad Ltd., Sissons Paints (West Indies) Ltd., Penta Paints Ltd., or I.C.I. Paints (West Indies) Ltd. Except where otherwise instructed.  
All paints must be used strictly in accordance with the manufacturer's printed instructions.

#### Exterior Masonry Surfaces (Asbestos Cement, Concrete Cement Render, Brickwork) Surface Preparation

#### New Masonry Surfaces

- B. Surfaces Should be dry & clean, free from fungi, algae growth and other contamination. Allow average of four (4) weeks for cement-rendered surfaces and cement-mortar to cure. Allow eight (8) weeks average for poured-concrete. Remove nibs and loose surface material by sanding and scraping. Stop up all cracks & other imperfections with appropriate filler. Prime and finish as per relevant product data sheet.

#### Previously Painted

- C. a. Good Condition  
Clean surface with detergent solution. Rinse with clean water and allow to dry. Fill all imperfections with appropriate plaster filling. Allow to dry. Then rub down new filling and spot prime. Spot in any bare areas & finish as per relevant data sheet.
- b. Poor Condition  
Remove all flaking materials by scraping or with wire brush. Remove powdery materials with a stiff bristle brush (scrubbing brush) – wash down when necessary. Apply one (1) coat penetrating liquid to seal and rebound the coating to substrate.

Fill imperfections, etc. Finish as per relevant product data sheet.

Finish with cover exterior emulsion, flat emulsion, satin emulsion, gloss paint (six (6) months dried), satin finish (six (6) months dried), textured coating, roof compound.

#### Exterior Iron and Steel – Surface Preparation

- D. Remove all traces of rust, mill scale, dirt and grease by wire brushing, mechanical sanding, sand blasting or oxy-acetylene flame cleaning and de-scaling (power tool). Alternatively – de-rusting with a cold-phosphating solution is suitable for light rusting.

#### Priming

- E. Primer should be well brushed out to an even thickness. As free of brush marks as possible – thus avoiding sources of weakness in the paint film.

Ensure all bolt heads, nuts, rivets, edges and corners etc. are adequately coated.

## MATERIALS AND WORKMANSHIP (Cont'd)

### PAINTING AND DECORATION (Cont'd)

#### Priming (Cont'd)

- A. Protect primer from the weather by over coating with a suitable undercoat and finishing coat pocketing a high degree of flexibility and resistance to weather conditions.  
NOTE: The formation of rust is due to highly complex electrochemical action arising from contact with air and moisture. Accelerated by presence of other contaminants like soluble acids and salts as found in rainwater in build-up areas.

Finish with satin finish, aluminium paint.

#### Previously Painted Iron and Steel Surfaces

- B. a. Good Condition

Clean surfaces with detergent solution to remove all traces of dirt, grease, etc. Rinse with clean water – whilst wet light rub with water emery grade 320. Wash off residues and wipe dry.

Bare or exposed metal should be spot primed with appropriate primer – allow to dry. Then proceed to painting.

- b. Poor Condition

Remove all defects by burning off or using paint remover. Wash off residue with warm water. Scrapers and wire brush to remove all rust, scale and loose material. Prime all prepared areas as soon as possible with appropriate metal primer.

Finish with gloss paint, satin finish.

#### Workmanship

##### Prepare

- C. The term “Prepare” shall be deemed to mean all preparatory work stated in the foregoing items.

##### Stirring

- D. The content of all cans and containers of all materials must be properly and thoroughly stirred before and during use and shall be suitably strained as and when necessary.

All materials shall be used strictly in accordance with the manufacturer’s instructions.

- E. Coating to Dry

All coatings shall be allowed to dry thoroughly before the succeeding coats are applied.

##### Colour Tint

- F. Each coat of primer, undercoat and paint (except white) shall be of distinct tint from the previous one so as to be readily distinguishable. Sample shall be submitted to the Engineering Technician for approval.

All colours and tints will be selected by the Engineering Technician and such selection shall be recorded on a specimen colour board, which shall be kept on site and maintained until the completion of works.

## **MATERIALS AND WORKMANSHIP (Cont'd)**

### **PAINTING AND DECORATION (Cont'd)**

#### Colour Tint (Cont'd)

- A. All surfaces shall, except where required by the paint manufacturer's instructions, be dry before decorative materials are applied and all coats must be dry before subsequent coats are applied. All coats, except cement paints, shall be rubbed down with glass-paper and brushed clean before the application of subsequent coats. No external painting shall be carried out while rain is falling or in rainy weather. No thinning or other dilution shall be carried out except in strict accordance with the paint manufacturer's instructions.

#### Damaged Surfaces

- B. All damaged painted or other surfaces shall be touched up before hand over.

#### Brush Work

- C. Unless otherwise described, all applications shall be by brush. Permission must be obtained for application by spray or roller from the Engineering Technician. If permission is granted such application shall be at the sole expense of the contractor.

#### Protection of Wet Surfaces

- D. Adequate care must be taken to protect surfaces while still wet by the use of screens and "wet paint" signs where necessary.

#### Cleanliness

- E. All brushes, equipment tools, etc. shall be kept in a clean condition and surfaces shall be clean and free from dirt and dust during painting. Painting shall not be carried out in the vicinity of other operations which might cause dust.

On no account shall paints, thinners, etc., be thrown down gulleys, manholes, sinks, lavatories, wash basins, W.C.'s or any other sanitary fittings. All solid refuse, paint tins, inflammable residues, etc. must be removed from site.

#### Ironmongery

- F. All surfaces fixed, ironmongery fittings and accessories, except hinges and butts must be removed before painting and refixed on completion.

#### Cleaning on Completion

- G. All floors shall be twice washed, all marks on paint touched up or sponged off, all paint marks and splashes cleaned off glass, ironmongery, floors, walls and ceilings and the whole must be left to the satisfaction of the Engineering Technician.

#### Pricing

- H. Prices are to include for:
- a. All considerations arising from specification.
  - b. Varying colours in individual rooms or areas in accordance with the Employer's colour scheme.
  - c. Preparing fairly large sample panels of finishing colours as and when directed by the Employer.
  - d. All preparatory work to the surfaces to be painted.

## **MATERIALS AND WORKMANSHIP (Cont'd)**

### **METALWORK**

#### Generally

- A. All metalwork shall be fabricated by a specialist firm(s) approved by the Engineering Technician. Before any order is placed, the contractor/sub-contractor shall obtain the approval of the Engineering Technician of the firm(s) they intend to use for the fabrication of metalwork.

#### Materials

- B. Steel

Mild steel, hot rolled sections, hot rolled hollow section, tubes and circular hot rolled sections shall be of the accepted standard and quality used in the trade. Samples may be required by the Engineering Technician for approval before fabrication.

Mild steel shall conform to BS 4360: 1986. The surfaces of steel shall be smooth, clean and free from rust, loose scale which shall be removed from the steel prior to the dispatch of works. Any subsequent accumulation of dirt, oil or grease shall be cleaned off immediately prior to erection.

- C. Galvanized Works

Iron and steel where galvanized shall be entirely coated with Zinc after fabrication by complete immersion in a Zinc bath in one (1) operation and all excess carefully removed. The finished surface shall be smooth, clean and uniform.

- D. Aluminium

All aluminium frames, mullions and transoms shall be anodised extruded sections as described.

- E. Bolts and Nuts

Bolts and nuts shall be of the type, size and quality shall comply with B.S. 4190.

- F. Workmanship

Smithing and bending shall be soundly and neatly executed, care being taken not to overheat the metal.

- G. Forging

All straps, bolts and similar work shall be forged neat and clean from the anvil.

- H. Welding

All welds shall penetrate the full depth of the metal using metal-arc process.

Where hollow sections are used, the welds shall continue completely around the sections to be jointed. Where gates are to be welded, these shall be inspected by the Engineering Technician before welding begins.

## **MATERIALS AND WORKMANSHIP (Cont'd)**

### **METALWORK (Cont'd)**

#### Welding (Cont'd)

- A. All soldered, or welded joints, etc., to be securely anchored to the structure and make good the surfaces to which they are fixed.

#### Painting at Works

- B. Where work is described as primed after fabrication, the contractor/sub-contractor shall give the Engineering Technician at least forty-eight (48) hours notice, so that he may, if he so wishes, inspect and approve the work before priming commences. No work shall be primed before the Engineering Technician's approval is obtained.

Where described as primed at works, metalwork shall be freed of rust, mill scale, welding flux residue and shall be dry immediately prior to painting with primer.

The primer shall be touched up with a similar primer if damaged by subsequent handling at the expense of the contractor/sub-contractor.

#### Leave Clean

- C. Clean all exposed metal surfaces on completion with water or an approved petroleum product such as methylated spirit or kerosene. Make good any damage caused by the use of an improper cleaning material.

#### Pricing

- D. Prices to include for all considerations arising from the specification.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **EXCAVATION AND EARTHWORK**

#### General

- A. The contractor/sub-contractor shall examine and judge for himself the nature of the ground to be excavated. Excavation shall include for excavating in and handling whatever soil may be met with, including loose or compacted hardcore and for grubbing up any disused drains, pipes, etc. grubbing up roots and any other obstruction met with except rock, concrete and blockwork which are measured separately.
- B. Excavation and backfilling shall be carried out in such a manner as to avoid damage to adjacent structures and the Contractor shall provide any temporary support that may be required.

#### Nature of Ground

- C. Ascertain the nature of the ground and sub-soil and determine whether water, running sand or any other difficulties are likely to be encountered and weather cutting by hand or mechanized means must be used.
- D. Measures must be taken to control and reduce seepage of water on the site as far as practicable.
- E. Every precaution must be taken to ensure the moisture conditions in the soil are so controlled as to have no deleterious effect on the foundations. Excessive drying out or wetting must therefore be avoided during construction. Foundations are to be cast promptly after completion of excavation.

#### Level and Ram

- F. Level and ram surface of ground and bottom of all excavation to receive concrete.
- G. The contractor shall be responsible for setting up and maintain a site datum level accurately ascertained for this work, and checking that this level corresponds with the levels specified by the Engineering Technician.
- H. Immediately on issue of the order to commence, the contractor shall carry out and record a check level grid of the site which shall be agreed between the Engineering Technician and the contractor within one (1) week of the above order being given; no alteration of levels shall be undertaken until agreement has been reached and the Engineering Technician's instructions have been received.

#### Excessive excavation

- I. Should excavation be taken below the specified levels, the difference in the level shall be made up in concrete of 1:4:8 mix at the Contractor's own expense.

#### Spoil Heaps

- J. Spoil heaps for top soil shall be permitted on the site. The locations must be approved by the Engineering Technician. Temporary spoil heaps shall not exceed 1.25 m in height and shall be well graded or sloped and prices for all excavation and disposal must include for any multiple handling.



## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **EXCAVATION AND EARTHWORK (Cont'd)**

#### Soil for Filling

- A. Fill considered suitable for backfilling and filling shall be free from wood, debris or other combustible material, vegetable matter or any material subject to decay or disintegration and alkaline debris such as lime, plaster and cement from current operations.
- B. Backfilling shall be carried out with selected material around foundation and at the back of walls etc., up to original ground level or as directed. It shall be carried out in the horizontal layers not exceeding 225mm loose thickness, moistened or dried as required and thoroughly compacted by mechanical or other approved means to a dry density not less than the surrounding soil.
- C. The bottom 75mm of excavation for concrete shall be removed on the same day as the concrete (or blinding layer) is placed on it. If the excavation should become disturbed or weakened by water or other means, the Contractor shall be required to remove a further thickness of the soil as the Engineering Technician or his representative may direct, and to backfill same with 1:4:8 concrete at the Contractor's own expense.
- D. No backfilling shall be carried out which covers work which has not been inspected and approved.
- E. Imported fill for making up levels under slabs and the like shall be overburden from an approved source, free from clay, vegetable soil, roots or other deleterious matter.

#### Materials arising

- F. No materials found in the excavation are to be used in the Works without the written permission of the Engineering Technician.

#### Hardcore

- G. Hardcore is to consist of clean crushed stone, broken block or gravel approved by the Engineer, free from clay, silt or organic material, not exceeding 3" (75mm) maximum size and is to be consolidated with half-tonne vibrator roller or approved equivalent. The hardcore is to be well wetted and blinding with sand to present a uniform and even upper surface.

#### Pricing

- H. Prices for Excavation and Earthwork shall include all consideration arising from the specification.

#### Description

- I. This work shall include for supplying, casting, curing of concrete, supplying, erecting and striking of formwork and props, providing construction joints, expansion joints complete as per drawings and as specified hereinafter or as directed by the Engineering Technician. All items inclusive of all labour, materials, tools, plants and related services.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **EXCAVATION AND EARTHWORK (Cont'd)**

#### Starting Level

- A. Unless otherwise stated in the description of the items of excavation and planking and strutting, the starting level is the formation level after excavation to reduce levels or where no excavation to reduce levels is required, the stripped ground level.

#### Damp-Proof Membrane

- B. The damp-proofing is to be polythene (polyethylene) sheeting 500 gauge (0.05" thickness).
- C. The polyethylene sheeting is to be laid over blinding without being punctured with minimum 300mm and side laps and carried over walls for the full area of the ground floor slabs.

#### Materials

##### Waters

- D. Water to be used in the works shall be clean and free from all harmful matter, in suspension or solution.

##### Cement

- E. Portland cement shall conform to the requirement of ASTM C150, Type 1. Where specified on the drawing, cement shall be Sulphate Resistant.

##### Aggregates

- F. The aggregates shall be the best procurable and shall comprise inert, inorganic mineral matter only. They shall be satisfactorily clean, durable, hard, sound, strong and tough and be practically free from alkali, clay, dust, loam, mica, shale, slit, or any material deemed objectionable in the nature or amount by the Engineering Technician. None of the particles comprising the aggregates shall be coated nor be unreasonably flat or elongated.

### Workmanship

#### Approval of Bottoms

- G. The Engineering Technician or his representative shall inspect the excavation for all foundation before any concrete is placed and the Contractor/Sub-Contractor shall give a 24 hours' notice that such an inspection will be required, and the levels agreed between the Engineering Technician and the contractor/sub-contractor. If a good bearing bottom is obtained at a lesser depth than specified by the Engineering Technician or is not obtained at the level shown, the Engineering Technician is to be informed. No concrete is to be laid until the bottom has been approved and the level taken thereof.

Notwithstanding such approval, the bottom which becomes water-logged or otherwise spoilt after approval shall be cleaned out to the Engineering Technician's satisfaction before any concrete is placed.

Bottom of excavations damaged by weather, cut up or damaged by contractor's/sub-contractor's plant or negligence shall be removed and the space made up with weak concrete (1:12 all-in aggregate) at the contractor's own expense.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **EXCAVATION AND EARTHWORK (Cont'd)**

#### Workmanship (Cont'd)

##### Excavations

- A. Excavations shall be taken to and maintained at the sizes and levels specified by the Engineering Technician. Any excavations carried out wider or deeper than authorised by the Engineering Technician shall be made up with weak concrete at the contractor's own expense. No payment will be made to the contractor for such excavation nor for the disposal of the excavated materials.
- B. Excavation for drain trenches shall be cut accurately to line and level and the contractor shall maintain the trench width to no more than the minimum specified. If the contractor excavates to a width greater than that specified, he shall seek the Engineering Technician's approval and the cost of any increase in the class of pipe or bedding necessitated by this increase in the width shall be borne by the contractor.

##### Excavations Below Required Levels

- C. Should any excavation be taken below the required levels, or the depths necessary to obtain a suitable bottom, the contractor/sub-contractor will be required to fill in the excavation to the proper level with weak concrete as before, at his own expense.

##### Upholding Sides of Excavation

- D. The contractor/sub-contractor shall be responsible for upholding the sides of all excavations and for providing and maintain all necessary timber and other supports for their safety and for prevention of movement of the surrounding ground. The means of upholding the sides shall be at all times subject to the Engineering Technician's approval but such approval shall not absolve the contractor/sub-contractor from his responsibility for the safety of all excavation and for making good at his own expense all damages caused by the inadequacy of the means employed.
- E. The Contractor/Sub-Contractor shall so arrange the supports for the excavations that none are left in after the construction of the permanent work and he shall bear the cost of any that he fails to withdraw other than those left in at the expressed wish of the Engineering Technician. He shall further seek the approval of the Engineering Technician for all supports which he does not intend to withdraw.

##### Filling

- F. Filling around foundations or to make up levels under pavings shall be executed in layers not exceeding 225 mm in thickness well watered and consolidated to ensure proper compaction to a dry density not less than the surrounding soil, by mechanical or other means approved by the Engineering Technician. Materials containing clay, vegetable matter and rubbish shall not be used.

##### Consolidation of Hardcore, Granular Materials Etc.

- G. Hardcore and granular material shall be consolidated to the required levels and contours with a roller, vibrating roller or mechanical punner to a compaction equivalent to that obtained with 2.5 to 3 tonne roller, care being taken that no damage is done to the foundations, walls or adjoining works.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **EXCAVATION AND EARTHWORK (Cont'd)**

#### Horizontal Barriers

- A. Apply 4.5 Liters or dilution per 1 square metre to the soil, after grading is completed and prior to pouring of the slab or footing, so as to form a continuous barrier over the area being treated. Applications shall be made using low pressure spray ( 50 p.s.i. or less) at the nozzle).
- B. If the fill is wash gravel or other coarse material, the diluent should be increased to reach the soil substrate beneath the fill.

#### Vertical Barriers

- C. Apply twenty litres of dilution per 3 linear metres of depth. Vertical barriers should be established in areas around the base of foundations, plumbing, back-filled soil against foundation walls, and other critical areas.
- D. Applications should be made by rodding and/or trenching, as in post construction treatment.

#### **DILUTION TABLE**

<b>Termite</b>	<b>Percentage of A.I.</b>	<b>Application</b>
Dursban TC	1.0%	8 litres to 140 litres water
Demon TC	0.25%	4.5 litres to 445 litres water

#### Warranty

- E. Contractors/Sub-Contractors provide a written warranty for five (5) years against the re-infestation of Subterranean Termites. Warranty should indicate the amount of technical termiticide and finished product used, the total linear measure per 300 mm grade of depth and the total square metres covered.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **EXCAVATION AND EARTHWORK (Cont'd)**

#### Protection of Service Ducts, Etc.

- A. The Contractor/Sub-Contractor will be responsible for the protection of public and private service ducts, pipes, drains, etc. Obstacles encountered during excavations must be reported to the Employer or Engineering Technician and shall be dealt with as instructed on site by the Employer or Engineering Technician.

#### Pricing

- B. Prices are to be included for:

- a. All considerations arising from the specification.
- b. Hand/or mechanical excavation and disposal in whatever types of soil and fillings are encountered excluding concrete and rock but including roots, drain pipes and other obstructions and the contractor shall judge for himself the nature of the conditions.
- c. Extra difficulties of getting out, disposal and the extra bulking of concrete and rock.
- d. Earthwork support left in at the contractor's volition.
- e. Temporary retention of fillings.
- f. Disposal of trees and other vegetation cut down and grubbed up.
- g. Excavation in gravel and hardcore.
- h. Allow for excavation on items measured as 'extra over excavation' for any additional cost of disposal.
- i. Removing all temporary spoil heaps of surplus material as may be necessary preparatory to removing from site.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **CONCRETE WORK**

#### Description

- A. This work shall include for supplying, casting, curing of concrete, supplying, erecting and striking of formwork and props, providing construction joints, expansion joints complete as per drawings and as specified hereinafter of as directed by the Engineering Technician. All items inclusive of all labour, materials, tools, plants and related services.

#### Materials

#### Waters

- B. Water to be used in the works shall be clean and free from all harmful matter, in suspension or solution.

#### Cement

- C. Portland cement shall conform to the requirement of ASTM C150, Type 1. Where specified on the drawing, cement shall be Sulphate Resistant.

#### Aggregates

- D. The aggregates shall be the best procurable and shall comprise inert, inorganic mineral matter only. They shall be satisfactorily clean, durable, hard, sound, strong and tough and be practically free from alkali, clay, dust, loam, mica, shale, slit, or any material deemed objectionable in the nature or amount by the Engineering Technician. None of the particles comprising the aggregates shall be coated nor be unreasonably flat or elongated.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **CONCRETE WORK (Cont'd)**

#### Construction Requirements

##### Grading of Aggregates

- A. The grading of all aggregates shall be such as will produce an economic, plastic, practical, smooth, workable mix which when placed, set and cured will produce a concrete of the best character possible and shall be such as to achieve the specified twenty-eight (28) day cylinder compressive strength.

##### Duration of Mixing

- B. The mixing of each batch shall continue not less than one and one-half (1 ½) minutes after all the materials are in the mixer, during which time the mixer shall rotate at a speed of from fourteen (14) to twenty (20) revolutions per minute unless otherwise rated by the manufacturer.
- C. All concrete shall be mixed until uniformity in colour and consistency is attained and ingredients are well disturbed. Mixed concrete shall be completely discharged before a new charge is placed.

##### Hand Mixing

- D. When hand mixing is authorized by the Engineering Technician, it shall be done on all water-tight platforms. The fine and course aggregate in the appropriate proportions shall be spread on the platform and thoroughly blended before cement is spread evenly over the blended aggregate. The material shall then be shovelled into a cone shaped pile by casting centrally on the pile. This pile shall then be divided by casting in two (2) or more cone shaped piles and the operation of dividing and reuniting continued until the batch is uniform in colour. Only sufficient water to produce the desired consistency shall then be added as the batch is turned. The coarse aggregate previously moistened shall then be mixed with the mortar in the manner specified for mixing fine aggregate and cement.

##### Re-tempering

- E. The re-tempering of the concrete or mortar which has partially hardened, that is, remixing with or without additional cement, aggregate or water, will not be permitted.

##### Forms

- F. Forms shall be so constructed that the finished concreted will concrete with the shaped, lines, grades and dimensions indicated on the Plans.
- G. Lumber used in forms shall be free from warp. For exposed surfaces it shall be dressed to a uniform width and thickness, and be free from loose knots, decay or other defects. For unexposed surfaces and rough work, undressed lumber may be used if means are taken to prevent leakage of mortar.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **CONCRETE WORK (Cont'd)**

#### Machining Mixing

- A. The mixing of concrete, unless otherwise authorised by the Engineering Technician, shall be done in a batch mixer of type approved by him. The mixer shall be equipped with a suitable charging hopper, water storage and water-measuring device. It shall be cleaned at frequent intervals when in use and unimpaired. Further, hopper shall be thoroughly clean when mixing ceases and/or at days' end. Knock out all lumps of residue and wash out prior to charging hopper.

#### Depositing Concrete

- B. Concrete shall be deposited in forms as nearly as practicable in its final position, to avoid rehandling and in approximately uniform horizontal layers. Depositing shall be continuous until the unit of operation, as approved by the engineer is complete and as rapid as practicable to ensure bonding of the successive layers.
- C. Concrete shall be thoroughly worked around reinforcement and embedded fixtures, and into all parts of the forms. Coarser particles shall be worked back from the face of the forms.

#### Conveying of Concrete

- D. Concrete shall be mixed and delivered in accordance with applicable requirements of ASTM C94. Only trucks equipped with an approved rotary drum or agitator shall be used for conveying concrete. Conveying from mixer to final place of concreting shall be done in shortest practicable time, but never more than 1 ½ hours elapses between adding water to cement and placing of concrete unless the use is approved.
- E. Concrete may be conveyed by buckets, trolleys, chutes of proper size and slopes or pumped as long as segregation is prevented and sound finished product is attained. All methods of conveying concrete, however, shall be subject to approval of the Engineering Technician. Concrete shall not be allowed to fall freely more than 1500mm in height.

#### Curing Concrete

- F. Concrete surfaces exposed to conditions causing premature drying shall be protected by covering as soon as possible with canvas, straw, burlap, sand or other satisfactory material and kept moist by flushing or sprinkling. Curing shall continue for a period of no less than seven (7) days after placing the concrete. If high-early strength cement is used, this period may be reduced as directed by the Engineering Technician. Other precautions to ensure the development of strength shall be taken as the Engineering Technician may direct.



## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **CONCRETE WORK (Cont'd)**

#### Finishing of Concrete

- A. Portions of the structure to be covered by soil or masonry work or otherwise not to be visible shall have no special finishes. Surface to receive architectural finishes shall be prepared to receive such finishes. Surfaces which are not formed (e.g. top of slabs) are not intended to receive any special finishes like terrazzo or granolithic shall be neat-cement trowel finished.

#### Joints

- B. Locations of construction joints shall be shown on design drawings and shall be generally governed by design requirements and the natural discontinuity that may have to be provided for practical considerations. Contractor shall submit his proposal of construction joints to the Engineering Technician for approval.

Expansion joints shall be provided at locations and according to details shown on design drawings or as instructed by the Engineering Technician.

#### Grouting

- C. Grouting to install bolts, sleeves or under column and machine bases shall be non-shrinking grout not leaner than one part of cement with two parts of sand. Non-shrink compound shall be as approved by the Engineer and shall be mixed in proportion and in a way as specified by the manufacturer. Grouting method shall be such as to ensure complete filling of grouting space. Compressive strength of grout shall not be less than 1.5 times the strength of concrete on which it is laid.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **BLOCK WORK**

#### Cement and Water

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

#### Sand

B. Sand shall be fine aggregate of natural sand or crushed natural stone comply with B.S. 1200. Samples of sand are to be submitted to the Engineering Technician upon request for approval at any time during the contract period. If and when considered necessary all sand shall be site washed to the Engineering Technician.

#### Plasticiser

C. Plasticiser must be of a known and approved brand and to be used strictly in accordance with the manufacturer's instructions.

#### Concrete Blocks

D. No dimensions shall differ by more than 3mm from the specified standard dimension. "Standard Dimensions" refer to the manufacture's designated dimension and are not to be confused with "nominal dimensions" of modular size units which are equal to the standard mortar joint.

E. Concrete blocks shall conform to B.S. 6073: Part 1: 1981 of first quality, good sound, hard and well cured, and true to shape and size and shall be rough textured blocks unless otherwise described.

F. Load bearings blocks shall have an average crushing strength (average of 5 units) of not less than 7 N/mm measured over the gross area. Concrete masonry units shall be tested in accordance with B.S. 6073: Part 2: 1981 or A.S.T.M. c-140.

G. Blocks for fair faced work shall be smoothed textures, modular sized units of first quality with all edges and faces true and undamaged. Special blocks may be used angles and jambs. Blocks shall only be cut with a mason's saw or other tools obtained from or recommended by the manufacture.

H. All blocks shall be carefully off-loaded and stacked, care being exercised at all stages to ensure that all edges are kept true and undamaged.

I. No dimensions shall differ by more than 3mm from the specified standard dimension. "Standard Dimensions" refer to the manufacture's designated dimension and are not to be confused with "nominal dimensions" of modular size units which are equal to the standard mortar joint.

J. Concrete blocks shall conform to B.S. 6073: Part 1: 1981 of first quality, good sound, hard and well cured, and true to shape and size and shall be rough textured blocks unless otherwise described.

K. Load bearings blocks shall have an average crushing strength (average of 5 units) of not less than 7 N/mm measured over the gross area. Concrete masonry units shall be tested in accordance with B.S. 6073: Part 2: 1981 or A.S.T.M. c-140.

L. Blocks for fair faced work shall be smoothed textures, modular sized units of first quality with all edges and faces true and undamaged. Special blocks may be used angles and jambs. Blocks shall only be cut with a mason's saw or other tools obtained from or recommended by the manufacture.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **BLOCK WORK (Cont'd)**

#### Concrete Blocks (Cont'd)

- A. All blocks shall be carefully off-loaded and stacked, care being exercised at all stages to ensure that all edges are kept true and undamaged.

#### Mortar

- B. Mix mortar for blockwork of cement and sand (1:4) mixed on site in a similar manner to concrete including a plasticiser additive at the rate of quarter pint of plasticisers to every bag of cement and use within one hour of mixing. Mortar which has commenced to set is to be knocked up again for re-use.
- C. Mortar shall be mixed by placing one half of the water and sand in the operating mixer then adding the cement, plasticiser and the remainder of sand water. After all the ingredients are in a batching mixer, they shall be mechanically mixed for not less than three minutes. Hand mixing shall be employed unless specifically approved. Mortar should be re-tempered to maintain high plasticity but shall not be used after 1 ½ hours from the addition of water to mix.
- D. The mixer drum is to be thoroughly washed out at the completion of work each day and as necessary during working hours.

#### Reinforcement

- E. Reinforcement for blockwork shall be “Dur-o-wall” or other equal and approved inserted in the block courses as described with 250mm minimum laps at ends and continuous joints at corners and junctions walls.
- F. Where blockwork is reinforced with rod reinforcement, prices are to include for setting the ends of the rod reinforcement into the concrete base and threading through the hollows of the blockwork.

#### Laying Blocks

- G. 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 cleaned with laitance remover. Unless shown otherwise, blocks are to be laid in uniform courses with regular running bond.

#### Filling to Cores

- H. Where vertical reinforcement is specified or described, the reinforced cells are to be filled with concrete for the full height of wall and as specified.
- I. Fill shaft consist of concrete mix 20 N/mm<sup>2</sup>. Sufficient water shall be added to make a workable mix that will flow into tall the parts of the masonry cell without separation or segregation. The slump of the fill should be in the region of 75mm to 100mm. Fill shall be placed before any initial set occurs and in no case more than 1 ½ hours after water had been first added. Added mixtures may be used subject to prior approval by the Employer.

## **MATERIAL AND WORKMANSHIP (Cont'd)**

### **BLOCK WORK (Cont'd)**

#### Filling to Cores (Cont'd)

A. The concrete fill shall develop a minimum compressive strength of 20 N/mm<sup>2</sup> at 28 days when tested.

#### Joints

B. Blockwork to be plastered shall have all joints raked out to a depth of 10mm to form additional key.

C. Fair faced blockwork is to have all horizontal joints raked out and tooled to a depth of 10mm, and all vertical joints flushed up.

D. All striking and flushing of joints shall be done as the work proceeds and all split mortar washed of block faces with clean water.

#### Pricing

E. Prices are to include for:

1. All considerations arising from this specification.

# **MATERIAL & WORKMANSHIP ROOFING**

## Roof System Complete

- A. The system shall be designed and installed in accordance with the following:
  - i. Uplift resistance UL-90
  - ii. Water tightness:-
    - A. Air filtration ASTM E283
    - B. Water filtration ASTM E331
  - iii. Dead Load expectancy 79.

The holding down system shall not be over tightened so as to cause splitting of the protective rubber. Any blurs or shaving as a result of installation shall be removed form around drilled holes and roof surface. Installation of ridge caps, etc. shall be in accordance with the manufacturer's specification. Where overcapping of weather sheets is necessary this shall be done in accordance with the manufacturer's specification. The overall system shall be guaranteed for a minimum of ten (10) years.

## Weather Sheets

- B. The parent metal shall be steel of minimum gauge 26. It shall be totally protected by:
  - i. Superficial metal alloy if aluminum and zinc in accordance with ASTM 791.
  - ii. The surface shall be further protected by fluorocarbon or fluoropolymer coating of minimum thickness 1.51mil.

## Characteristics

- C. The product shall carry a guarantee against chalking up to fifteen (15) years or more. Must not be susceptible to failure and scratching under human traffic. The coating must be flame resistant. It must be fungus resistant. The coating shall show only minimal breakdown as a result of ultraviolet reflection over a ten (10) year period. The sheets used for installation shall be full length sheets. The sheet shall be guaranteed against corrosion for fifteen (15) years.

## Workmanship

### Handling

- D. The weather sheets shall be stored/handled to avoid scratching of the protective coating. However, should this occur, the sheet shall be deemed unfit for installation.

### Inspection

- E. Upon inspection by the Superintending Officer or his representative, any blurs, broken washer found shall be deemed unsatisfactory, removed and promptly replaced on the request of the Inspecting Officer. Fasteners must go through the high point of the weather sheets. At no time will be permitted to fasten in the valley.

**MATERIAL AND WORKMANSHIP (Cont'd)**  
**ROOFING (Cont'd)**

Holding Down System

General

- A. It will be preferred if the holding down system adheres to the following
  - a. Does not puncture weather sheet.
  - b. Is designed such that it permits movement of the sheets under cyclic thermal expansion and contraction without sheet buckling.

If puncture cannot be avoided

- B. The holding system shall be of a material as close to the parent metal of the weather sheets in the electrochemical series. Neoprene washer shall be used to isolate the screw from the weather sheet as well as form a moisture barrier at the point of sheet penetration. Felt shall be used on the underside of the weather sheet to avoid galvanic action. The holding down bolt/screw or fastener shall be adequately coated against corrosion for fifteen (15) years.

Pricing

- C. Pricing to include for:-
  - a. Cutting and waste on roofing sheets to provide the lengths required to cover slopes in one, confirm lengths as required.
  - b. Prices for roofing work are to include for all considerations arising from this specification.
  - c. All fixing materials.
  - d. All tests and testing materials.

### **3.0 WORKS TO BE DONE**

## **WORKS TO BE DONE**

### **NOTES:**

- (i) Dimensions and quantities stated are approximate. Tenderers are to visit the site and verify all dimensions and quantities, existing conditions and prices should include for these.
- (ii) The descriptions below are to be read in conjunction with the relevant specifications in the materials and workmanship section
- (iii) The contractor may include in the price of the measured work Nr. any considerations arising from said specifications



**WORK TO BE DONE Cont'd.**

Item	Description	Qty.	Unit	Rate	Amount
	ENGINEERING INSTALLATIONS				
	<u>Plumbing Installations</u>				
A.	In both the male and female outdoor change rooms:				
	i. Replace projection shower arm two (2) No. and head, and cold water valves.	2	Nr.		
	ii. Replace face basin faucets two (2) No. with single handle faucets in both male and female change rooms and cold water valves	2	Nr.		
	iii. Replace toilet seats two (2) No..	2	Nr.		
B.	Allow a provisional sum of <b>\$500.00</b> to service/repair plumbing installations as necessary.		Allow		500.00
C.	Allow a provisional sum of <b>\$1,000.00</b> to make good all builders works due to plumbing installations.		Allow		1,000.00
	<u>Lighting Installations</u>				
D.	Replace 4' – 0" fluorescent bulbs four (4) No. in male and female outdoor change rooms.	4	Nr.		
	Protection of all works in this section.		Item		
TO SUMMARY \$					

**WORK TO BE DONE Cont'd.**

Item	Description	Qty.	Unit	Rate	Amount
	PLASTERWORK, WALLS, FLOORS AND OTHER FINISHES				
A.	Supply and install approved 8" x 16" glazed ceramic wall tiles fixed with thin set or other approved adhesive to concrete or block wall, with joints pointed with matching grout up to a height of 6' – 0" in both male and female outdoor toilet and change rooms.	380	Sq.ft		
B.	Replace netting over vent blocks openings on wall in outdoor change rooms on both inside and outside, fixed with wooden frame:				
	i. Male	30	Sq. ft.		
	ii. Female	26	Sq. ft.		
C.	Remove existing fibre board ceiling and replace with gypsum weather resistant board ceiling framed with wall angles, furring and 'C' channels	370	Sq. ft.		
D.	Allow a provisional sum of <b>\$3,000.00</b> to make good any builders works due to installations.		Allow		3,000.00
E.	Protection of all works in this section.		Item		
	TO SUMMARY \$				

**WORK TO BE DONE Cont'd.**

Item	Description	Qty.	Unit	Rate	Amount
	PAINTING AND DECORATION				
A.	<u>Western Wall</u> Prepare and apply one (1) sealer coat and three (2) finishing coats emulsion paint to wall.	5200	S.F.		
B.	<u>Northern Wall</u> Prepare and apply one (1) sealer coat and three (2) finishing coats emulsion paint to wall.	2700	S.F.		
C.	Prime and Apply one (1) undercoat and two (2) finishing coats oil paint to two (2) No. 8' – 0" square metal gates.	256	S.F.		
	<u>Eastern Wall</u>				
D.	Prepare and apply one (1) sealer coat and three (2) finishing coats emulsion paint to wall.	7000	S.F.		
E.	Prime and Apply one (1) undercoat and two (2) finishing coats oil paint to one (1) No. 4' – 0" wide x 8' – 0" high metal gate.	64	S.F.		
F.	Protection of all works in this section.		Allow		
TO SUMMARY \$					

**WORK TO BE DONE Cont'd.**

Item	Description	Qty.	Unit	Rate	Amount
	METALWORK				
A.	Remove and replace defective wooden roof framing from existing roof above out door change rooms		Item		
B.	Remove existing roofing sheets and replace with pre-painted full length aluzinc galvanize sheet measuring 71' – 0" long x 20' – 0" wide on roof above outdoor change rooms.		Item		
C.	Remove and replace defective barbed wire on northern and western walls approx.. 100' attached to vertical posts extending above the top of the wall to a height of at least 5' – 0".(to be identified on site)		Item		
D.	Install Galvanize Wall Spikes with 2½" anchor bolts to top of wall	410	Feet		
E.	Allow a provisional sum of <b>\$3,500.00</b> to make good any builders works due to installations.		Allow		3,500.00
F.	Protection of all works in this section.		Item		
	TO SUMMARY \$				

**WORK TO BE DONE Cont'd.**

Item	Description	Qty.	Unit	Rate	Amount
	<b>CONCRETE WORKS</b>				
A.	Demolish and cart away existing 4" thk. concrete block perimeter wall along with ground beam approx.. 120' – 0" long x 8' – 0" high on eastern wall (to be identified).		Item		
B.	Demolish and cart away existing 4" thk. concrete block 23' long x 9' high (behind water tank )		Item		
C.	Excavate to receive pad footing 24" x 24" x 12"		Item		
D.	Excavate ground beam trench 20"deep x 12" wide to receive ground beam.		Item		
E.	Construct ground beam 18"deep x 12" wide using 3000 psi concrete, 8 no. 5/8" diameter steel horizontal bars and 3/8" diameter steel distribution bars 6" c/c.		Item		
F.	Construct pad footing 24" x 24" x 12" using 3000 psi concrete and 5/8" diameter steel bars c/c 6" both ways		Item		
G.	Construct column 10" x 10" x 10'-6" high @ 12' -0" c/c using formwork, 3000 psi concrete , 4 no. 3/4" vertical bars and 3/8" diameter steel distribution bars 6" c/c.		Item		
H.	Erect 4" thk. concrete block wall with starter bars every other core to the height of 8'-0" with insitu concrete.		Item		
I.	Erect 6" thk. concrete block wall 23' long x 9' high with 1/2 " dia. starter bars grouted to existing slab every other core to the height of 8'-0" with insitu concrete. along with a fabricated Rhs and wrought iron entrance gate including ironmongery (behind water tank )		Item		
<b>TO COLLECTION \$</b>					

**WORK TO BE DONE Cont'd.**

Item	Description	Qty.	Unit	Rate	Amount
	CONCRETE WORKS				
A.	Demolish existing broken 4" thk. concrete wall approximately 3' wide x 9' high and rebuild with ½" dia. bars 4" c/c both ways using formwork on both sides and filled 3000 psi concrete to existing level .		Item		
B.	Chase around existing water line 6' -0" long x 1' - 0" wide x 1'-0" deep carefully and encase water line using a 3000 psi concrete mix to existing level.		Item		
C.	Allow a provisional sum of <b>\$5,000.00</b> to make good any builders works due to installations.		Allow		5,000.00
D.	Protection of all works in this section.		Item		
	TO COLLECTION				
	COLLECTION				
	Page 3/6				
	TO SUMMARY \$				



## **4.0 GENERAL SUMMARY**





## **5.0 TECHNICAL AND FINANCIAL SPECIMEN FORMS\***

Form 1: Appendix to Tender

Form 2: Form of Tender

Form 3: Applicant Information Sheet

Form 4: Work Experience of Firm

Form 5: Similar Type of Works

Form 6: General Background and Organization

Form 7: Methodology and Work Plan

Form 8: Curricula Vitae for Proposed Key Professional Staff

**\*ALL FORMS ARE TO BE FILLED OUT AND RETURNED IN THE PROPOSAL**

## FORM 1: APPENDIX TO TENDER

This Appendix forms part of the Agreement.

[Note: with the exception of the Items for which the Employers requirements have been inserted, the Contractor shall complete the following information before submitting his offer]

Nr.	Sub-Clause	Data
Documents forming the Contract listed in the order of priority	1.1.1	
Document		Document Identification
(a) Letter of Invitation		_____
(b) The Agreement		_____
(c) Particular Conditions		_____
(d) General Conditions		_____
(e) The Specification		_____
(f) The Bill of Quantities		_____
(g) Form of Tender		_____
(h) Performance Bond		_____
Time for Completion	1.1.9	_____ weeks
Law of the Contract	1.4	Laws of the Republic of Trinidad and Tobago
Language	1.5	English
Provision of Site	2.1	To be Agreed
Authorised Person	3.1	The Ministry of Sport and Youth Affairs or its Nominated Representative
Name and Address of Employer's Representative (if known)	3.2	#2 Elizabeth St., St. Clair
Performance Security (if any)	4.4	N/A

**FORM 1 (Continued)**

Nr.	Sub-Clause	Data
Requirements for Contractor's Design (if any)	5.1	NA
<b><i>Programme</i></b>		
Time for Submission	7.2	Within Five (5) working days of Commencement Date
Form of Programme	7.2	Bar Chart
Late Completion	7.4	<b>\$300.00</b> per day up to a maximum of 20% of Sum stated in Agreement
Remedying Defects	9.1 & 11.5	<b>Six (6) months</b> calculated from The date stated in the Notice under Sub-Clause 8.2
Variation and Claims		
Valuation of Variations	10.2	(a) to (d)
Contract Price at Payment		_____ (details)
<b><i>Valuation of the Works</i></b>		
Lump Sum Price	11.2	N/A
Lump Sum Price with Schedules of Rates	11.3	N/A
Lump Sum Price with Bill of Quantities	11.1	As per tender
Measurement with Tender Bills of Quantities	11.1	N/A

**FORM 1 (Continued)**

Nr.	Sub-Clause	Data
<i>Valuation of the Works (Continued)</i>		
Cost Reimbursable	11.1	N/A
Percentage of Value of Materials and Plant	11.2	Materials - 80% Plant - N/A
Percentage of Retention	11.3	10% with 5% after Practical Completion
Currency of Payment	11.7	T&T Currency
Rate of Interest	11.8	N/A
Insurances	14.1	
Type of Cover	Amount of Cover	Exclusions
The Works, Materials, and Plant	The Sum stated in the Agreement plus 15%	_____
Contractor's Equipment	Full Replacement Cost	N/A
Third Party Injury to Persons and Damage to Property	1,000,000.00	_____
Workmen's Compensation	500,000.00	_____
Fire/Theft	500,000.00	_____
Arbitration Rules	15.3	Arbitration Rules of T&T
Appointing Authority	15.3	President of the Board of Engineering of Trinidad and Tobago
Place of Arbitration	15.3	Trinidad

**FORM 2: FORM OF TENDER**

Date:

Permanent Secretary  
Ministry of Sport  
#2 Elizabeth Street  
Port of Spain

Dear Sir/Madam,

**RE: For the Works – PROPOSED UPGRADES OF OUTDOOR CHANGE ROOMS AND PERIMETER WALL AT THE WOODBROOK YOUTH FACILITY, PORT-OF-SPAIN**

I/We having visited the site and taken note of the services issued in connection with these Works and having made due allowance for Addenda Nos. .... , do hereby offer to furnish all labor, equipment and materials in providing the proposed Upgrades of Outdoor Change Rooms and Perimeter Wall at the Woodbrook Youth Facility, for the fixed price of .....payable in Trinidad and Tobago Currency or such other sum as may be determinable by the Conditions of Contract VAT Inclusive.

I/We agree to hand over the work duly completed to your entire satisfaction within ..... (inclusive of Sundays and Public Holidays) calculated from the date on which contract is signed.

This Tender is submitted without any collusion, conflict of interest, corrupt and fraudulent practice with any other officer, employee or person acting for the Proponent.

It is understood that this offer shall remain open for acceptance for a period of Ninety (90) days and that you do not bind yourself to accept any tender nor to be responsible for any expenses incurred in estimating any tender received.

Signature ..... in the capacity of

..... duly authorized

to sign tenders for and on behalf of .....

.....

(IN BLOCK LETTERS)

Address .....

Date .....

Company Stamp.....



**FORM 4: WORK EXPERIENCE OF THE FIRM**  
*(To be filled out and returned in the Proposal)*

Name of Proponent: \_\_\_\_\_ Date: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

<b>Contract Identification</b>	<b>Starting Month / Year</b>	<b>Ending Month / Year</b>	<b>Planned Construction Duration</b>	<b>Actual Construction Duration</b>	<b>Role of Applicant</b>	<b>Original Contract Value \$</b>	<b>Final Contract Value \$</b>
Contract name: Brief Description of the Works performed by the Applicant: Name of Contracting Entity: Address: Contact Person Contact Number							
Contract name: Brief Description of the Works performed by the Applicant: Name of Contracting Entity: Address: Contact Person Contact Number							



**FORM 5: SIMILAR TYPE OF WORKS**  
*(To be filled out and returned in the Proposal)*

Name of Proponent: \_\_\_\_\_ Date: \_\_\_\_\_

Page 1 of 2 pages

<b>Project Name:</b> ____ of ____ required.	<b>Information</b>
Description of the similarity in accordance with the Scope of Services	
1. _____	
2. _____	
3. _____	
4. _____	
5. _____	
6. _____	

## FORM 5: SIMILAR TYPE OF WORKS CONTINUED

*(To be filled out and returned in the Proposal)*

Name of Proponent: \_\_\_\_\_ Date: \_\_\_\_\_

Page   2   of   2   pages

<b>Project Name:</b> _____ of _____ required.	<b>Information</b>		
Contract Identification	_____		
Award date	_____		
Initial Completion date	_____		
Actual Completion date	_____		
Role in Contract	<input type="checkbox"/> Contractor	<input type="checkbox"/> Management Contractor	<input type="checkbox"/> Subcontractor
Original contract amount	_____		TT\$ _____
Final contract amount	_____		_____
Variance	_____		_____
If party in a JVCA or subcontractor, specify participation of total contract amount	_____ %	_____	TT\$ _____
Contracting Entity's Name: Contact Person	_____		
Address:	_____		
Telephone/fax number:	_____		
E-mail:	_____		

## FORM 6: GENERAL BACKGROUND AND ORGANIZATION

*(To be filled out and returned in the Proposal)*

Name of Proponent: \_\_\_\_\_

Date: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

<b>Contract Fulfillment History - Non-Performing Contracts</b>			
<b>Has the Firm (or any constituent part) been liable for failing to comply with the fulfillment of a contract at any time during the last five years?</b>			
<input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>Yes</b> <i>If yes, give below, or if necessary on a separate attachment details regarding any contract non-performance issues current or during the last five (5) years.</i>			
<b>Pending Litigation</b>			
<b>Has the firm (or any constituent part) been named party to any litigation proceedings during the last five (5) years?</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>Yes</b> <i>If yes, give below, or if necessary on a separate attachment details regarding any litigation current or during the last five (5) years in which you were a named party.</i>			
Year	Outcome as percent of total assets	Contract Identification	Total Contract Amount (current value, TT\$ equivalent)
_____	_____	Contract Identification: Name of Contracting Entity: Address of Contracting Entity: Matter in dispute:	_____

**OSHA violations, Workers Compensation claims or Safety claims**

Has the firm (or any constituent part) been named party to any OSHA violations, workers' claims or safety claims during the last five (5) years?

- No**  
 **Yes**

*If yes, give below, or if necessary on a separate attachment details regarding any OSHA violations, Workers Compensation claims or Safety claims current or during the last five (5) years in which you were a named party.*

Year	Outcome as percent of total assets	Contract Identification	Total Contract Amount (current value, TT\$ equivalent)
_____	_____	Contract Identification: Name of Contracting Entity: Address of Contracting Entity: Matter in dispute:	_____

**Statutory Approval Violations**

Has the firm (or any constituent part) been named party to any Statutory Approval violations during the last five (5) years?

- No**  
 **Yes**

*If yes, give below, or if necessary on a separate attachment details regarding any Statutory Violations current or during the last five (5) years in which you were a named party.*

Year	Outcome	Contract Identification	Total Contract Amount (current value, TT\$ equivalent)
_____	_____	Contract Identification: Name of Contracting Entity: Address of Contracting Entity: Matter in dispute:	_____

## **FORM 7: METHODOLOGY AND WORK PLAN**

*(To be filled out and returned in the Proposal)*

*[Technical approach, methodology and work plan are key components of the Technical Proposal. It is recommended that you present your Technical Proposal divided into the following two chapters:*

- a) Technical Approach and Methodology*
- b) Work Plan*

*a) **Technical Approach and Methodology.** In this chapter you should explain your understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.*

*b) **Work Plan.** In this chapter you should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones and delivery date. Detailed Gantt chart indicating key tasks and time frame.*

**FORM 8: FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED  
KEY PROFESSIONAL STAFF**

*(To be filled out and returned in the Proposal)*

Page 1 of 2

Name of Proponent: \_\_\_\_\_

Name of Staff: \_\_\_\_\_

Profession: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Years with Firm/entity: \_\_\_\_\_ National: \_\_\_\_\_

Membership in Professional Societies: \_\_\_\_\_

\_\_\_\_\_  
Detailed Task Assigned: \_\_\_\_\_

**Key Qualifications:**

*[Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and location. Use about half a page.]*

---

**Education:**

*[Summarize college/university and other specialized education of staff member, giving names of school, dates attended and degrees obtained. Use about half a page.]*

---

**FORM 8: FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED KEY PROFESSIONAL STAFF**

*(To be filled out and returned in the Proposal)*

Page 2 of 2

Employment Record:

*[Starting with present position, list in reverse order every employment held. List all positions held by staff member since graduation, giving dates, names of employing organizations, titles of position held, and locations of assignments. For experience in the last ten years, also give types of activities performed and client references, where appropriate. Use about three-quarters of a page.]*

---

Languages:

*[For each language indicate proficiency: excellent, good, fair, or poor; in speaking, reading, and writing]*

---

Certification:

**I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.**

\_\_\_\_\_ *Date:* \_\_\_\_\_  
*[Signature of staff member and authorized representative of the Firm]*

*Full Name of staff member:* \_\_\_\_\_

*Full Name of authorized representative:* \_\_\_\_\_