

# Government of the People's Republic of Bangladesh

# LOCAL GOVERNMENT ENGINEERING DEPARTMENT (LGED)

# **DRAFT**

## WORKS CONTRACT MANAGEMENT MANUAL

**FINAL VERSION** 

This Works Contract Management Manual for the Local Government Engineering Department (LGED) of the Government of Bangladesh has been prepared through a collaborative consultative process between the LGED and the United Nations Office for Project Services (UNOPS). This partnership is part of the United States Agency for International Development (USAID) funded Organizational CapacityDevelopment for Local ImplementingPartners in Bangladesh (OCD) project implemented by UNOPS in Bangladesh.

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Shyama Prosad Adhikari Chief Engineer

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### **ACRONYMS**

BBS Bangladesh Bureau of Statistics

BDT Bangladeshi Taka BOQ Bill of Quantities

CPTU Central Procurement Technical Unit

DLP Defect Liability Period

DoFP Delegation of Financial Power

EWO Extra Work Order

GCC General Conditions of Contract
GoB Government of Bangladesh
HOPE Head of Procuring Entity
IT Information Technology
ITT Instructions to Tenderers

JV Joint Venture

LGED Local Government Engineering Department

NOA Notification of Award

PCC Particular Conditions of Contract

PE Procuring Entity
PPRPublic Procurement Rules
PM Project Manager
PW Procurement of Works
QS Quantity Survey

RVQ Request for Variation Quotation

RIMS Risk Identification and Management System

STD Standard Template Document

TDS Tender Data Sheet

TEC Tender Evaluation Committee
TEC Tender Evaluation Committee

VO Variation Order

#### 1. INTRODUCTION

### 1.1. Manual Description

This Manual has been prepared for management of construction contracts awarded under PW2, PW3 and PW5. The Manual is intended to facilitate LGED personnel's conformity to a uniform method and processes of managing the contracts. This manual outlines duties and responsibilities of LGED employees involved in Contract Management and Contractors and the procedures to be followed for proper management of the works contracts and provides a proper protocol for handling issues that arise from contract interpretation.

The Manual is organized in a manner that each chapter gives an overview on the subject matter, outline the responsibilities of LGED staff involved in contract management, procedures to be followed and provides user-friendly template/guiding documents to be used throughout the whole contract management process. Moreover, a particular chapters provides flowcharts which represent the most critical workflow in contract management, explained in a diagrammatic illustration. The process maps presented in the attachments provides common understanding of the steps, decisions, roles and responsibilities of the staff and the timeframe for completion ofmost important contract management processes.

The procedures included in this Manual are based on the existing legal framework of The Government of the People's Republic of Bangladesh - Public Procurement Act 2006, the Public Procurement Rules 2008, and General Conditions of Contracts encompassed in the Standard Tender Document (STD) for PW2/PW3/PW5 issued by Central Procurement Technical Unit (CPTU). When there is discrepancy, the Procurement Act 2006, The Public Procurement Rules 2008and documents forming the contract (specified under Chapter 3) will govern over this Manual.

The words and expression used in this Works Contract Management Manual have the similar meaning as described in GCC. If there are unclarities, the users of the manual should refer to GCC.

Where this Manual refers to action to be taken by LGED individual staff members, such action is to be taken only after due adherence of the staffing organization for the project and in particular the delegated duties and responsibilities of the staff members for each contract. This manual is one of the components used to manage successfully construction contracts in LGED.

With an aim of continuous improvement, it is anticipated that the Manual will be updated and supplemented to reflect on policy changes and practices. Users of the Manual are invited to submit comments or to suggest changes to the LGED Procurement Department so that changes, if appropriate, may be incorporated into future revisions.

### 1.2. Overview on Contract Management

Contract management is one of the most important phases in construction projects and involves numerous tasks occurring before and after contract execution and issuance of Notification of Award (NOA). Furthermore, contract management involves making timely decisions, smooth and efficient flow of information and decisions to enable completion of the project as required by the contract documents, including review, supervision and monitoring of the construction project.

Effective contract administration includes:

- Developing proper and accurate contract documents;
- · Complying with contract documents and specifications;
- Enforcing national rules and regulations;
- Ensuring quality assurance by overseeing, inspecting, reviewing, sampling and testing of all materials and work;
- Ensuring the works are done within the agreed timeframe and with contracted price;
- Keeping and maintaining accurate construction project records;
- · Recording, verifying and preparing monthly pay estimates;
- Negotiating and processing of change orders, supplemental agreements and other contract modifications in a timely manner;
- Promoting good public relations;
- Setting and maintaining a high professional standard etc.

The construction works must be managed in accordance with the contract specifications, terms and conditions and national laws and regulations.

### 2. GENERAL

### 2.1. Key Definitions

In this Contract Management Manual for Works, similar to GCC, the following key words and expressions shall have the meaning hereby assigned to them.

- (a) **Approving Authority** meansthe authority which, in accordance with the Delegation of Financial Powers, approves the award of contract.
- (b) **Procuring Entity (PE)** means a Procuring Entity having administrative and financial powers to undertake procurement of Works and physical services using public funds and is as named in the **PCC** who employs the Contractor to carry out the Works.
- (c) **Project Manager** is the person named in the **PCC** or any other competent person appointed by the Procuring Entity and notified to the Contractor who is responsible for supervising the execution and completion of the Works and physical services and administering the Contract.
- (d) **Contractor** means the Person under contract with the Procuring Entity for the execution of Works under the Rules and the Act as stated in the **PCC**.
- (e) Contract Price means the price payable to the Contractor as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, for the execution, completion and maintenance of the Works in accordance with the provisions of the Contract.
- (f) **Subcontractor** means a person or corporate body, who has a contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- (g) **Start Date** is the date defined in the PCC and it is the last date when the Contractor shall commence execution of the Works under the Contract.
- (h) Intended Completion Date is the date calculated from the Commencement Date as specified in the PCC, on which it is intended that the Contractor shall complete the Works and physical services as specified in the Contract and may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
- (i) Force Majeure means an event or situation beyond the control of the Contractor that is not foreseeable, is unavoidable, and its origins not due to negligence or lack of care on the part of the Contractor; such events may include, but not be limited to, acts of the Government in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes or more as included in GCC.

### 2.2. Joint Venture

A joint venture is a contractual business undertaking between two or more parties. In the case of joint venture, consortium or association each partner in the Joint Venture is jointly and severally liable to LGED for the performance of the entire contract. However, the Project Manager will liaise with the representative of Leading Partner as designated authority to conduct all business with LGED,

including receipt of payment for and on behalf of the partners. Each partner in a joint venture is fully responsible for payment of all labour, material, equipment and other obligations.

#### **Procedure:**

- 1) Once Joint Venture is formed, the alteration of its composition is not allowed prior to execution of the contract.
- 2) PE can approve alteration of Joint Venture composition at a date later than contract execution prior approval of HOPE.
- 3) When reviewing the request for modification of JV composition, PE should consider the approval of alteration of JV composition only if one of the partners is found to be incompetent or has any serious difficulties which may impact the overall implementation of the work. Replacement shall be higher than the previous.
- 4) The change of JV Leading Partner is not allowed.
- 5) Project Manager should provide sufficient information to PE, justifying the reason for approval of request for modification of Joint Venture composition.

### 2.3. Procuring Entity's Key Responsibilities

- a) Assure the Quality, Time and Price control throughout the execution of the Works by the Contractor.
- b) Payment to the Contractor, in consideration of the satisfactory progress of execution and completion of the Works and physical services, and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract Agreement.
- c) Payment to the Contractor for any compensation events (refer to GCC Clause 67.1 for the compensation events) occurred during the contract execution. Example: if LGED has delayed in given the possession of the Site or part of the Site to Contractor, the Project Manager may authorize increase of the contract price and/or extension of completion time.
- d) Approval of the contractor's key personnel named in the Schedule of Key Personnel as referred to in the PCC and replacement of key personnel, to carry out the functions stated in the Schedule.
- e) Approval of contractor's Work Plan, proposed by the Contractor as well as any, update in the Work Plan during the contract execution.
- f) Give right of access to, and non-exclusive possession of, those parts of the Site set out in the site plan within the time (or times) stated in the PCC.
- g) Guide and assist the Contractor in obtaining, if required, any permit, license, and approvals from local public authorities for the purpose of execution of the Works and physical services under the Contract.
- Recommends the existence of a Force Majeure that will be the basis of the issuance of order for suspension of Works and submit the recommendation to HOPE for final decision on the existence of Force Majeure.ytug
- i) Provide directives to Project Manager with regards to contract implementation.

### 2.4. Project Manager's Key Responsibilities

The Project Manager is LGED staff appointed by Procuring Entity who is responsible for supervising the execution and completion of the Works and physical services and administering the Contract, particularly, but not limited to:

- a) Except where otherwise specifically stated in the PCC, decide contractual matters between the Procuring Entity and the Contractor in its role as representative of the Procuring Entity and clarify queries in conditions of the contract on behalf of PE.
- b) Assure the Quality, Time and Price control throughout the execution of the Works by the Contractor.
- c) Approve a Programme of Works showing the general methods, arrangements, order, and timing for all the activities in the Works.
- d) Approve the Specifications and Drawings showing the proposed Temporary Works submitted by the Contractor.
- e) Give instruction to Contractor for commencement of the Works.
- f) Approve the Contractor's key personnel and any changes in the composition key personnel proposed by the Contractor;
- g) Check the works executed by the Contractor and notify the Contractor of any defect found, instruct the Contractor to suspend the Works when assessed necessary.
- h) Determine the value of the Works executed, check the Contractor's monthly statement and certify the amount to be paid to the Contractor and issue Completion Certificate as evidence that the Contractor has executed the Works and physical services in all respects as per design, drawing, specifications and Conditions of Contract.
- i) Manage the contract filing system and ensure proper documentation of all activities pertaining to contract administration.

### 2.5. Contractor's Key Responsibilities

The Contractor, throughout the execution and completion of the Works will be responsible to:

- a) Carry out all instructions of the PE/Project Managers that are in compliance with applicable Laws.
- b) Execute and complete the works and remedy any defects therein according to the provisions stipulated in the contract agreement and in line with BOQ, approved Specification, Drawings and Work Plan.
- c) Prepare the Programme of Work in the form of an Implementation Schedule showing general methods, arrangements, order and timing for all activities in the Works and submit to Project Manager for approval.

- d) Design of Temporary Works and obtain the approval of third parties to the design of the Temporary Works, where required.
- e) Execute and complete any works authorized by PE under any Variation or Extra Work Order as well as any remedial work, when approved by Approving Authority (the authority in accordance with Delegation of Financial Powers).
- f) Provide access to the site for authorized persons (LGED officials/personnel from ministries/development partners) for examination, inspection, measurements, testing and supervision.
- g) Supply "As Built" Drawings and/or operating and maintenance manuals by the date specified in PCC, if required.
- h) Submit to Project Manager monthly statements of the estimated value of the works executed less the cumulative amount certified previously.
- i) Take all reasonable steps to safeguard the health and safety of all workers working on the Site and other persons entitled to be on it, and to keep the Site in an orderly state.
- j) Provide and maintain at the Contractor's own cost all lights, guards, fencing, warning signs and watching for the protection of the Works or for the safety on-site.
- k) Take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of the Contractors methods of operation.
- Comply with all the relevant labour Laws applicable to the Contractor's personnel relating to their employment, health, safety, welfare, immigration and in order to allow them all their legal rights.
- m) Adhere to all applicable labour Laws and other relevant treaties ratified by the government which prohibits the *employment of any child* to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health.
- n) Provide the proper accommodation to his or her labourers and arrange proper water supply, conservancy and sanitation arrangements at the site for all necessary hygienic requirements and for the prevention of epidemics in accordance with relevant regulations, rules and orders of the government.
- o) Pay on time the reasonable wages to his or her labourers.
- p) Before starting the Works, provide, in the joint names of the LGED and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts specified in the PCC for the following events which are due to the Contractor's risks:
  - Loss of or damage to the Works, Plant, and Materials;
  - · Loss of or damage to Equipment;
  - Loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
  - · personal injury or death.

- q) Pay all applicable *taxes, custom duties, VAT*, and other levies imposed or incurred inside and outside Bangladesh.
- **r)** Take accountability for any act or default of any Subcontractor, his or her agents or employees, as if they were the acts or defaults of the Contractor.

### 2.6. Subcontracting

"Subcontractor" means any person named in the Contract as a subcontractor who is entitle to execute the specific components of the Works stated in PCC. It is a party that carries out work for a Contractor.

In the event that a Subcontractor is appointed, the prime Contractor shall still retain full responsibility for the contract and cannot pass anycontractual obligations to the Subcontractor and under no circumstances shall assignment of the Contract to the Subcontractor or Subconsultant be allowed.

The prime Contractor shall remain responsible foradministering its Subcontractors.

#### Procedure:

- 1) The Project Manager and his delegates should make sure that the Contractor has not subcontracted the whole works. The Contractor shall only subcontract part of the Works to a Subcontractor as stated in the PCC with the prior written consent of the Project Manager.
- 2) For the purposes of approval of a subcontractor, the Project Manager should review and assess the following:
  - a) The relevant experience and capacity of proposed Subcontractor;
  - b) The proposed terms and conditions of the subcontract; and
  - c) Financial or other information that the PE may require to satisfy himself that the proposed Subcontractor is an appropriate entity to execute the relevant part of the Works.
- 3) As part of the contract administration responsibilities, the Project Manager and his delegates are responsible for informing those responsible for the regular monitoring of the construction on the site to become aware of the subcontractors.
- 4) The delegates of Project Manager assigned for monitoring/supervision of the works are responsible to verify whether subcontractors have been approved and advise the Project Manager of any non-approved subcontractors working on the site.
- 5) Project Manager should make sure that sub-contractors observe highest standards of ethics and comply strictly with the provisions on corruption, fraudulence, collusion and coercion stipulated in Section 64 of the Public Procurement Act, 2006 and Rule 127 of the Public Procurement Rules, 2008.
- 6) Any approval of subcontractor(s) by PE, shall not relieve the Contractor from any of its warranties, obligations or liabilities under or in connection with the Contract and it shall be responsible for the acts, omissions or defaults of any Subcontractor (including, without limitation, any Permitted Subcontractor or Nominated Subcontractor), its agents or employees, as if they were the acts, omissions or defaults of the Contractor.

### 2.7. Communications and Notices

All communications between LGED and the Contractor must be in writing to ensure that such communications are legally binding, confirmed by the signature of the sender or an authorized Officer or nominee of the sender on the communication.

Communications between LGED and the Contractor (notice, request or consent required or permitted to be given or made by one party to the other) pursuant to the Contract shall be in writing to the addresses specified in the PCC.

The LGED staff should beawareoftheirlimitsofauthorityincommunicatingwiththepartiestothecontract,ofthesignificanceoftheirwritt encommunicationandoftheformal orcontractual communicationrequired. Contractual correspondence should be signed by PE/Project Manager or other appointed individual and not by anyone else.

#### **Procedure:**

- 1) All correspondence should be received at the PE/Project Manager's office.
- 2) The Procuring Entity /Project Manage should make clear at the initial site meeting the distinction of authorities with regards to official communication and correspondence.
- 3) Procuring Entity will appoint a responsible person for a particular contract who will be in charge of receiving all type of correspondence to and from Contractor.
- 4) When necessary, the LGED staff in charge of managing correspondences ) will circulate a copy of correspondence to all personnel marked on the distribution list, including the site staff as, required for the information purposes.
- 5) The forms for registering the correspondence should be used accordingly.

### 2.7.1. Publication of Contract Information

Contract Award information shall published by the PE according to the standard format for Reporting Contract Awards of CPTU in LGED and to CPTU website according to Rule 37 of PPR'08. The Procuring Entity/Project Manager is responsible to prepare publication statement.

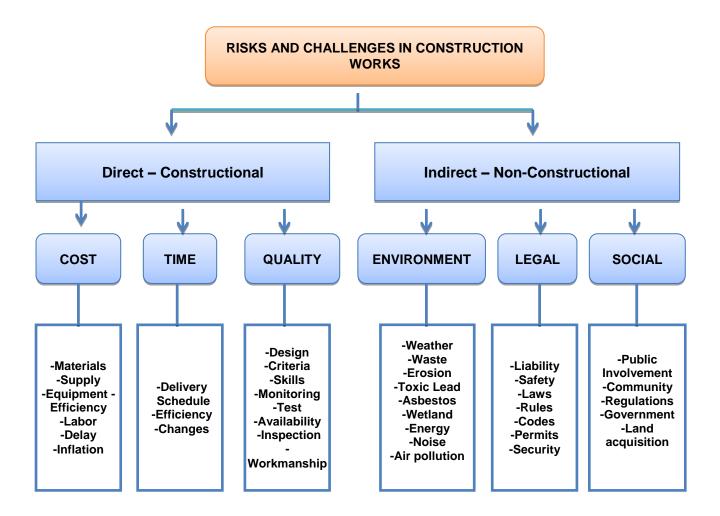
### 2.8. Risk management

Risk management at LGED is described as "the effect of uncertainty on the achievement of objectives". It is important to remember that a risk can have a negative or positive effect on achieving objectives. At LGED a Risk Identification and Management System (RIMS) is currently being developed for use. The RIMS will provide a standard approach for undertaking risk management at all levels of LGED. The diagram nr.2 present the risk identification and management process.

<sup>&</sup>lt;sup>1</sup> Based on ISO 31000:2009, Risk management – Principles and guidelines

Risk management can be described as the systematic application of management techniques (policies, procedures and practices), to identify, evaluate and analyse risks and formulate appropriate management strategies and plans to manage those risks. Risks are managed through sound organizational and construction practices and through careful preparation and review of the project contract documents. A significant component of successful risk management begins with how well the risks are allocated at contract formation stage. Effective risk management must cover all areas, functions and processes of the construction project. Risk management should be integrated into every day construction work practices.

The diagram nr 1 below provides some examples of typical risks for construction projects.



#### Procedure:

- 1) The risks associated to the responsibility of PE should be shared by Procuring Entity/Project Manager while the risks associated to Contractor's responsibility are borne by the Contractor.
- 2) The Project Manager/Procuring Entity is in charge of:
  - a) conducting the initial risk assessment prior to the development of any construction contract to identify, analyze, and evaluate the risks associated with a construction project, both LGED and the Contractor .
  - b) preparing the strategy to manage the risks associated with a construction project.
  - c) developing a risk management plan and discussing with the selected Constructor.
- 3) While developing a strategy for risk management, the Procuring Entity/Project Manager should take into consideration the risks associated to both LGED and the Contractor. From the start date until the Defects Correction Certificate (FORM 7/4) has been issued, specific attention should be paid to the following LGED potential related risks:
  - a) the risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment);
  - b) the risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the LGED or in the LGED design, or due to natural, technological or man made events directly affecting the country where the Works are to be executed.
- 4) On selection of the Contractor, the Procuring Entity/Project Manager should conduct a risk assessment session to ensure that the Contractor understands the associated risks and their responsibilities for the identification, analysis, evaluation and management of those risks.
- 5) As per the Contractor's associated risks, the following risks should be subject to specific risk management efforts: the risks of personal injury, death, and loss of or damage to property including without limitation, the Works, Plant, Materials, and Equipment.
- 6) The site staff should inform the Procuring Entity/Project Manager of any risks that might be identified during the construction process and that are considered as a potential cause for not achieving the expected performance.
- 7) The Procuring Entity/Project Manager should ensure that the project risks are reviewed on a regular basis throughout the time of the project.

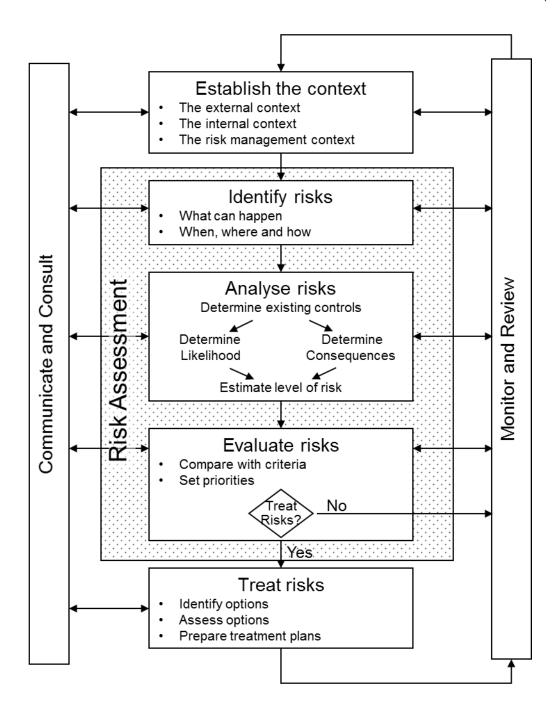


Diagram 1: Risk Identification and Management process

### 2.9. Control Plan

The control plan clearly highlights measures including methods of performing controls, documentation plan, enforcing quality control operations of both the Contractors and their subcontractors (including inspection and testing), time management and all action plans to ensure proper control of the costs of contract execution. Control plan is part of overall contract strategy developed by Project Manager upon award of the contract.

#### Procedure:

- 1) The Procuring Entity Project Manager should develop a comprehensive control plan in collaboration with Contractor to ensure effective quality, time and cost control during the construction works.
- The Project Manager will have the authority to act in all construction control matters and will be responsible for ensuring that the work is executed in full compliance with the contractual terms and conditions.
- 3) The Project Manager should work closely with LGED Testing and Inspection Unit and the Contractor's designated control bodies to ensure time and effective control over the works.
- 4) The Project Manager, Senior Assistant Engineer (district level), Upazila Assistant Engineer (Upazila level) or other assigned Engineer should maintain the document management plan in terms of referencing, logging, filing, tracking and archiving. Form 2/1 is to be used for control of the document system in the specific construction project.

### 2.10. RecordKeeping

### 2.10.1. Importance of Accurate Records

Complete and accurate records are important for proper administration of all Contracts for works. An accurate and structured filing system is necessary to keep track of site records, avoid duplication, be able to easily locate records, and store records in an orderly manner.

The Procuring Entity shall maintain the procurement files for the period of 5 (five) years. In special cases, the Head of Procuring Entity can approve the maintenance of the filing system for more than 5 (five) years.

It is crucial to document all important information related to the performance of the work carried our during the contract execution. Contract records provide the following and are required for legal purposes:

- a) Facts and details of all tests, inspections and work performed;
- b) Proof of, and support for, decisions, actions, and fulfilment of the responsibilities; and
- c) Documentation of the Contractor's compliance or noncompliance, with the Contract plans and specifications.
- d) Statement of Works execution and Acceptance of Quality, Works Completion Certificate, Measurement Books.
- e) Amendment in Contract, Extra Work Order/Variation Order, any other evidential document which affect the conditions of Contracts as like Contract Price, Intended Contract Completion Date etc.
- f) Payment certificates, generated invoices and paid bills related to procurement.

### 2.10.2. Content of Filing System

The Uniform File System is to be used for all LGED projects regardless of the size or type of project.

#### Procedure:

- 1) The Project Manager is responsible to establish a uniform file system consisting of three main categories: 1) Tender related documents (before issuance of NOA; 2) Contract Administration documents and 3) Payment related documents. Filing system will be based on the format of a digit project number followed by a category number and record type sequence (e.g. project number 2016234/3 (refers to payment related category)/2 (refer to record type eg. Cash flow documents). Where a project involves multiple contracts, an additional digit will be necessary to distinguish between contracts. A FORM 2/2 provide a sample of filings system with categories and record type.
- 2) The Project Manager or other appointed LGED staff is in charge of maintaining the complete, clear and accurate records that provide documentation of Contractor delays, quantity variations, unacceptable work, quality of materials, surveying problems, and other points of contention. Complete documentation supports the LGED's position in case of a formal dispute.
- 3) All project correspondence shall be filed on a regular basis, on the correct file and in proper sequence.
- 4) All sheets in each individual file shall be given a progressive Folio Number.
- 5) A set of backup files shall be stored in a separate location.
- 6) Computers and hard drive may be used for the collection, storage, and retrieval of documentation generated for a Contract. Electronic collection and retention of records must be acceptable from an engineering, audit, and legal standpoint; therefore, any records system should allow for the reconstruction of the chain of events that occurs on a Contract. Records must meet the following requirements:
  - a) include information recorded at or near the time of the events,
  - b) include information recorded by or from a person with direct knowledge of the event,
  - c) be kept during the course of business.
  - d) ensure only authorized personnel enter information,
  - e) provide adequate backup and recovery to protect against information loss due to either human error or system failure,
  - f) prevent unauthorized alteration or erasure,
  - g) provide authorized users retrieval capability,
  - h) include adequate software programs and hardware dependency documentation
  - i) provide an accurate audit trail by indicating the steps followed in processing the data and the methods used to prevent loss of data, and
  - j) be stored on appropriate place
- 7) Assistant Upazila Engineer (Upazila level), Senior Assistant Engineer (District level) or other assigned LGED staff are responsible for filing and maintenance of the file location register.

### 2.10.3. Contract Register

Contract registers are user friendly tool to manually record correspondence details and contractual matters. The Project Manager is responsible for developing and maintaining the contract register for the following correspondence:

| Register | Description |
|----------|-------------|
| R1       | General     |
| 111      | General     |

| R2 | Payment                            |
|----|------------------------------------|
| R3 | Site instruction (Site Order Book) |

### **CHAPTER 2**

### **Forms**

FORM 2/1 Documentation Control Plan

FORM 2/2 File Index

Form 2/1

### **DOCUMENTATION CONTROL PLAN**

"INSERT THE NAME OF THE PROJECT"

| Document Type   | Who has authority to | Who is responsible to | Record Type: |
|---|----------------------|-----------------------|--------------|
|   | raise and create?    | maintain              |              |
| Communication to and from Donor                       |                      |                       |              |
| Communication to and from Donor                       |                      |                       |              |
| Communication to and from Beneficiary                 |                      |                       |              |
| Communication from and Notice to Contractor           |                      |                       |              |
| Internal LGED correspondence                          |                      |                       |              |
| Internal LGED clerical and accounting documentation   |                      |                       |              |
| Time Control  |                      |                       |              |
| Signed contract documentation                         |                      |                       |              |
| Technical Documentation (drawings and specifications) |                      |                       |              |
| Programme (contract and working)                      |                      |                       |              |
| Daily reports   |                      |                       |              |
| Quality Control                                       |                      |                       |              |
| Inspection/Test Report                                |                      |                       |              |
| Daily reports   |                      |                       |              |
| Project meeting minutes                               |                      |                       |              |
| Site photographs                                      |                      |                       |              |
| Health & Safety documentation                         |                      |                       |              |
| Environmental Management documentation                |                      |                       |              |
| Cost Control  |                      | l                     | l            |
| Measurement and claims documentation                  |                      |                       |              |
| Other   |                      |                       |              |

Form 2/2

### **FILE INDEX**

| Project title:   |       |
|------------------|-------|
| Contract number: | XXXXX |

| CATEGORY                                | RECORD TYPE   |
|---|---|
| 1. TENDER MANAGEMENT                    |   |
| VVVVV 004 04                            | Invitation to Dide decomposts Dill of Occupation  |
| XXXXX.001.01                            | Invitation to Bids documents, Bill of Quantities, General Conditions of Contract, Particular Conditions |
|   | of Contract, Advertisement Notice, etc.   |
| XXXXX.001.02                            | General design matters (general specification,  |
| XXXX.001.02                             | particular specifications, drawings, design)  |
| XXXXX.001.03                            | Documents related to evaluation of bids (if applicable)   |
| 2. CONTRACT MANAGEMENT                  | Bootimento related to evaluation of bids (ii applicable)  |
| A. Contract Administration              |   |
| A. Contract Administration              |   |
| XXXXX.002.01                            | NOA, Signed contract and all related attachments  |
| XXXXX.002.02- General Administration    | Contract management plan, implementation plan,  |
|   | Notice to commence; possession of site; submission  |
|   | of securities, insurance etc; authorised signatories;   |
|   | appointment of the Project Manager; completion  |
|   | documents, public relations documents etc.  |
| XXXXX.002.03 - Staff and Labour         | Contractor's staff organisation, labour returns, hours  |
|   | of work, holiday and close down arrangements,   |
|   | expatriate work-force, local work-force, (including   |
|   | training)   |
| XXXXX.002.04 - Site administration      | Site accommodation and housing, Site office facilities,   |
|   | Medical and health facilities, Communications and   |
|   | other facilities, Project vehicles, Assets - household,   |
|   | survey and office equipment, construction material  |
|   | related documents, plants and equipments, safety and  |
| VVVVV 000 05                            | environment protection related documents etc.   |
| XXXXX.002.05                            | Issues, Contractual Claims, Issue and approval of VO,   |
| Variation Orders, Claims, extensions of | Disputes, Non-Conformances and Corrective Action  |
| time, disputes and arbitration          | related documents,  |
| XXXXX.002.06- Reports and meetings      | All type of reports, records from the meetings, audit   |
|   | reports, accident reports   |
| B.PAYMENTS                              |   |
| XXXXX.003.01                            | Advance payments, Interim payments, Contractor's  |
|   | Statements and Project Manager's Certificates, Final  |
|   | Payment etc.  |
| XXXXX.003.02                            | Cash flow estimate, price escalations related   |
|   | documents, Final Payment etc.   |
|   | 1   |

#### 3. PRE-AWARD ACTIVITIES

An effective contract management includes the command and control of activities spanning pre-award phase and post-award - construction phase. Proper handling of the activities before awarding a contract is a pre-requisite for successful execution of the construction works and achievement of overall project outcome. A failure in pre-contract management will result in post-contract management time and effort being wasted on trying to resolve and correct omissions and failures of the earlier phase.

#### **Procedure:**

- After the approval of the contract award, the PE shall issue the Notification of Award (NOA) to the successful Tenderer. The notification will be issued prior of expiration of the Tender Validity period and within 1 week; after contract award. The NOA shall state:
  - a) the acceptance of the Tender by the LGED;
  - b) the price at which the contract is awarded;
  - c) the amount of the Performance Security and its format;
  - d) the date and time within which the Performance Security shall be furnished; and
  - e) the date and time within which the Contract shall be signed.
- 2) The PE shall notify the Central Procurement Technical Unit for NOA for contract (Contract Value 1 Crore BDT and above) within seven **7** days of its issuance for publication in CPTU website.
- 3) The PE will send the draft Contract Agreement and all documents forming the Contract to the successful Tenderer at the same time of issuing the NOA.
- 4) The NOA shall be accepted by the successful Tenderer within seven (7) working days from the date of its issuance.
- 5) Until a formal contract is signed, the NOA will constitute a Contract, which shall become binding upon the furnishing of a Performance Security and the signing of the Contract by both parties.
- 6) A successful Tenderer shall furnish the Performance Security within fourteen (14) days (PW3); seven (7) working days (PW2); twenty eight (28) days (PW5), from the date of acceptance of the NOA in the amount as specified in TDS.
- 7) The PE shall increase the amount of the Performance Security on the recommendation of TEC above the amounts as stated under ITT
- 8) PE shall verify the authenticity of the Performance Security by sending a written request to the issuing bank.
- 9) The PE and successful Tenderer shall sign a contract within **twenty eight (28) days** (PW3 and PW5); **fourteen (14) working days** (PW2) of issuance of the NOA. If the successful tender is of JV, all partners of the JV shall sign the contract agreement.
- 10) The PE proposes the person named in the TDS to be appointed as Adjudicator under the Contract, at an hourly fee and for those reimbursable expenses as specified in the TDS

- 11) PE will return Tender Security to Tenderers at different stages of Tendering Process according to the status of the Tender as follows:
  - Just after the Tender Opening Process, PE will return Tender Security to those Tenderers who have withdrawn their Tender before Tender Submission Deadline.
  - Immediately after the Tender Evaluation Report Approval by the Approving Authority, PE will return Tender Security to those Tenderers who's Tender has declared as non-responsive.
  - Immediately after the Tender Evaluation Report Approval by the Approving Authority, PE will return Tender Security to the responsive Tenderer according to their application who's Tenders are not theranking 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> position.
  - After the contract signing with lowest evaluated responsive Tenderer, PE will return Tender Security to the rest of the Tenderer (who's Tenders were in ranking 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> position).
  - In all cases, PE will return Tender Security to the Tenderer before expiry the Tender Validity Period.
- 12) The Competent Authority responsible for a particular project, shall appoint a Project Manager who will be responsible for administering a construction contract to be awarded to Contractor.
- 13) Once appointed, Project Manager shall establish promptly the communication with the representatives of the Contractor.
- 14) Project Manager organizes a pre-construction meeting with clarify with Contractor all contractual related matters such as: the accuracy of contract's documentation, the BOQ, Drawings and Specification, the timeframe for commencing the Works, the issuance of Programme of Works and other related documents, the safety measures, provisions in the contract, recourses need to commence and execute the Works etc.

**NOTE:**The following documents forming the Contract shall be interpreted in the following order of priority:

- a) The signed Contract Agreement;
- b) The Notification of Award;
- c) The completed Tender (i.e. Tender Submission Letter and Tenderer Information Form) and the Appendix to the Tender;
- d) The Particular Conditions of Contract;
- e) The General Conditions of Contract;
- f) The Technical Specifications;
- g) The General Specifications;
- h) The Drawings;
- i) The priced BOQ and the Schedules; and
- j) Any other document listed in the PCC forming part of the Contract.

### **CHAPTER 3**

### **Forms**

FORM 3/1 Notification of Award

FORM 3/2 Contract Agreement

FORM 3/1

### **NOTIFICATION OF AWARD**

| Contract N<br>To:  | No:  | Date:  |
|--|--|--|
| [Name of   | Contractor]  |  |
| [name of practices | roject/Contract] for the Contract Price                                  | ert date] for the execution of the Works for of Tk [state amount in figures and in words], the Instructions to Tenderers, has been   |
| You are the  | us requested to take following action                                    | s:   |
| i.   | accept in writing the Notification o its issuance in accordance with ITT | f Award within seven (7) working days of Clause 64   |
| ii.  | Tk [state amount in figures and  | he form as specified and in the amount of dwords], within fourteen (14) days of ward but not later than (specify date), in 66.   |
| iii.   |  | v-eight (28) days of issuance of this or than (specify date), in accordance with   |
| You may al   |  | ssonly upon completion of the above tasks. Factorial fac |
| We attach  | the draft Contract and all other docu                                    | ments for your perusal and signature.  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | Signed   |
|  |  | Duly authorised to sign for and on behalf of [name of Procuring Entity]  |
|  |  | Date:  |
|  |  |  |

**FORM 3/2** 

### **CONTRACT AGREEMENT**

THIS AGREEMENT made the [day] day of [month][year] between [name and address of Procuring Entity] (hereinafter called "the Procuring Entity") of the one part and [name and address of Contractor] (hereinafter called "the Contractor") of the other part:

WHEREAS the Procuring Entity invited Tenders for certain works, viz, [brief description of works] and has accepted a Tender by the Contractor for the execution of those works in the sum of Taka [Contract Price in figures and in words] (hereinafter called "the Contract Price").

### NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of Contract hereafter referred to.
- 2. The documents forming the Contract shall be interpreted in the following order of priority:
  - (a) the signed Contract Agreement
  - (b) the Notification of Award
  - (c) the completed Tender and the Appendix to the Tender
  - (d) the Particular Conditions of Contract
  - (e) the General Conditions of Contract
  - (f) the Technical Specifications
  - (g) the General Specifications
  - (h) the Drawings
  - (i) the priced BOQ and the Schedules
  - (i) any other document listed in the **PCC** forming part of the Contract.
- 3. In consideration of the payments to be made by the Procuring Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Procuring Entity to execute and complete the works and to remedy any defects therein in conformity in all respects with the provisions of the Contract.
- 4. The Procuring Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Bangladesh on the day, month and year first written above.

|                          | For the Procuring Entity | For the Contractor |
|--------------------------|--------------------------|--------------------|
| Signature                |                          |                    |
| Name                     |                          |                    |
| National ID No.<br>Title |                          |                    |
| In the presence of Name  |                          |                    |
| Address                  |                          |                    |

### 4. TIME CONTROL

The aim of the effective time control is to ensure that the construction projects are completed within the contracted timeframe and timely measures are undertaken to avoid potential delays which may impact the overall project objectives. It is a complex task undertaken by the Project Managers in practice, which involves constantly measuring progress, evaluating plans, and taking corrective actions when required throughout the execution of the Works.

### 4.1. Contract Commencement Meeting

The contract commencementmeeting will be held to establish clear lines of authority, determine the duties and responsibilities, communications, subcontractor's requirements and usage, Project Manager, clarify potential misunderstandings and agree on the detailed implementation arrangements for successful completion of the contract. A successful contract commencement meeting should result in both the Contractor and the Project Manager having a clear understanding of the construction plan, expectations and responsibilities of all parties. The PE/PM should reach the mutual understanding with the contractor and sub-contractor/s on all terms and conditions of the contract document.

#### Procedure:

- 1) After the contract has been awarded, the PE/Project Manager should confer and arrange a contract commencement meeting with the Contractor, sub-contractor/s and all other stakeholders to review and agree on contract obligations, work schedule, construction arrangements and any other relevant issues of the construction project. It is fundamental that all LGED staff involved in managing the respective contract is familiarized with the implementation plan and project site as well as about all contract requirements and conditions.
- 2) The Meeting is to be attended by following representatives:
  - a) Procuring Entity
  - b) Project Manager and any other LGED staff assigned by Project Manager
  - c) Contractor's site engineer
  - d) Sub contractor's nominated representative (if any)
  - e) Representatives from utility companies (if required)
  - f) The representatives from emergency entities hospitals, fire departments etc. (if required)
  - g) Any other representative, as assessed as important based on specific project requirements.
- 3) The PE/Project Manager should schedule the contract commencement meeting sufficiently in advance to allow the attendance of all parties invited. All attendees will be given a ten (10) days advance notice of the date, time and location of the meeting venue. Subcontractor/s should be advised by the Contractor to attend.
- 4) A PE/Project Manager representative is responsible for taking minutes from the meeting and maintains the minutes of the meeting in the contract file along with any other required documentation. A copy of the minutes report should be submitted to all attendees.

### 4.2. Commencement of Works

Except otherwise specified in the PCC, the Project Manager should issue the Instruction to the

Contractor for commencing the work (FORM 4/7 INSTRUCTION FOR COMMENCEMENT OF WORK) if the following conditions have all been fulfilled:

- a) Contract Agreement has been signed by both parties;
- b) Except if otherwise specified in the PCC, possession of the Site given to the Contractor as required for the commencement of the Works; and
- c) Receipt by the Contractor of the Advance Payment under GCC Clause 73 (PW3); GCC Clause 78 (PW5) provided that the corresponding Bank Guarantee has been delivered by the Contractor.

Once the Instruction for commencing the works has been issued to Contractor, Project Manager should follow up proactively with Contractor to make sure that the Contractor follows the instruction. In the instruction for commencement of Works, the Contractor should be requested to submit to LGED insurance policy documents and Programme of Works to PE/PM for approval within **15 days** of signing of Contract.

In case the Project Manager notices the delays from the Contractor in commencing the works, a warning letter should be drafted and submitted to the Contractor.

Project Manager shall convene the commencement meeting with Contractor to clarify all relevant contractual arrangements. FORM 4/3 (COMMENCEMENT MEETING FORM) should be used to facilitate the commencement meetings.

### 4.3. Issue of Drawings and Other Documents

The drawings are contractual documents that represent the scope of the works as listed in the schedule of works or any additional or modified drawings issued by PE. The Contractor is obliged to perform the construction works in full accordance with the drawings, as an integral part of the contract.

The issueof otherdocuments to the Contractormust be in line with contractual requirements and should be recorded accurately.

### Procedure:

- 1) As required by the contract, the Project Manager will issue to the Contractor the sets of construction drawings, with prior approval of PE
- 2) The drawings issued by LGED to the contractor should be previously approved as an integral part of the Contract and clearly marked "APPROVED FOR CONSTRUCTION". The "Approved for Construction" drawings will accurately reflect the work upon which the tender was accepted...
- 3) In case of revision of drawing, the copy of the revised drawings should be shared with contractor with clearly marked revisions.
- 4) The Drawings shall be dated and numbered and show the revision number, signed by Competent Authority. To avoid unnecessary disputes and claims, the transmittal of drawings should be handled carefully and properly recorded on a regular basis at all stages during the construction works.
- 5) Before issuing the drawings, the PE/Project Manager should check for potential variation of

revised and/or new drawings from the scope of work or specification.

- 6) Any changes in the drawings should result in issuance of a Variation Order accordingly.
- 7) For revised drawingpreparation, the following aspects should be taken into consideration:
  - a) Contractor's constructionprogramandconstructionsequence;
  - b) Delivery time forconstructionmaterials;
  - c) Fabricationtimefor manufactureditems (if any);
  - d) Anydesignworkordrawingsrequired from the contractor.
- 8) If deemed necessary, the PE/Project Manager should liaise with the project specific designer to ensure that the designer is aware of any drawing that is inconsistent with the contract and which might result in a variation.
- 9) Once the "Approved for Construction" drawings are issued, the Project Manager is responsible to file to the contract file.

### 4.4. Programme of Works

The Programme of Works will be used for monitoring the progress of the execution of the Works.

#### Procedure:

- 1) The Project Manager is responsible for approval of the Programme of Works (as stated in GCC Clause 12.1(PW2); Clause 41.1(PW3); Clause 41.1(PW5) submitted by the Contractor within the time stated in the PCC. The Programme of Works should represent the general methods, arrangements, order and timing for all activities in the Works.
- 2) The Project Manager should also review and approve any updated Programme of Works, within contract period, submitted by the Contractor at intervals no longer than the period stated in the PCC. The updated Programme will show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 3) If the Contractor does not submit an updated Programme of Work at the stipulated interval in the PCC, the Project Manager is authorized to withhold an amount from the next payment certificate and continue to withhold this amount until the next due payment after the date on which the overdue Programme of Works has been submitted as per PCC.

**NOTE:** The submission to, and review by, the Project Manager of any amended or revised Programme of Work or any other document or revision thereof under shall not in any way relieve the Contractor of any of its warranties, obligations or liabilities under or in connection with the Contract.

### 4.5. Early Warning

Early warning is a partnering-based approach to resolve the issues arising during contract implementation. The Contractor should give early warning of any issues, events, circumstances or conditions that may affect the quality of the work, increase the original Contract Price or delay the execution of the Works. The contractor should give early warnings as soon as he become aware of it,

in order to minimize the detrimental impact on the work flow and to help reduce the risk of penalties being applied.

### Procedure:

- The Project Manager should make sure that Contractor understands the requirements for giving early warnings to LGED in cases he encounters any issue in complying with the contracted terms and conditions.
- If the LGED receive an early warning from the Contractor, the Project Manager should review the warning note, evaluate the situation and work collaboratively with the Contractor to find the proper solution.
- 3) The Project Manager will organize an early warning meeting to discuss with the Contractor and sub-contractor/s (if any) how to avoid or mitigate the impacts of the warned issue and decide what actions should be taken next by each party to resolve the matter in the most efficient manner.
- 4) The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the original Contract Price and Completion Date.
- 5) The Project Manager, Assistant Upazila Engineer (Upazila level) or Senior Assistant Engineer (District level) should share with Contractor the FORM 4/5 (EARLY WARNING NOTE) for maintaining administration of early warnings.

### 4.6. Extension of Intended Completion Date

The extension of completion date is required due to the circumstances which might arise during the execution of contract that make it impossible to complete the Works within the contracted completion period. The Contractor may be granted the approval for extension of Intended Completion Date based on following provisions: a) Occurrence of Compensation Events b) Variations and c) Extra Work Order.

Whenever LGED determine the need for extension of intended completion date, a formal amendment of Contract will be required.

### **Procedure:**

- 1) The Project Manager should become familiarized with the contract's grounds for extension of intended completion date of the works.
- 2) In case the Contractor consider himself eligible for extension of Intended Completion Date, he should submit the early warning note to Procuring Entity informing on the circumstances occurred that require the need for extension of time for completion of Works. The Contractor should submit the notice no later than twenty-eight (28) days after the Contractor became aware of such circumstances.
- 3) The PE should carefully review the claim note, in conjunction with site staff and determine the entitlement of the Contractor and decide within twenty-one (21) days of the submission of notice by Contractor. A form 4/6 CHECK LIST FOR EXTENSION OF INTENDED COMPLETION DATE will be used to ensure that all aspects are considered in the review.
- 4) If the Contractor has not submitted the written notice on time, the delay by the particular failure shall not be considered in assessing the extension of Intended Completion Date. In this case PE/PM submits the explanation letter to the Contractor.

- 5) Procuring Entity may extend by up to **twenty (20) percent** of the original contract time, as stated in PPR 39.
- 6) The Head of Procuring Entity can approve, or authorize a person to approve the extension of time for completion by more **than twenty (20) percent** of the original contract time.
- 7) If it is determined that the Contractor is entitled to an extension of the time for completion, the Project Manager should request from Contractor to submit the revised programme that shows the effect of the approved extension of time for completion.
- 8) If PE agrees with the Contractor's proposal to extend the Intended Completion Date, Contractor will submit the Claim requesting the amendment of the contract. The Contractor should submit the claim for Extension of Completion Date within **forty-two (42) days** as per GCC Sub Clause 91.3 (PW3); Sub Clause 99.3. (PW5) after Contractor became aware of the circumstances arisen that required the need for extension.
- 9) After receipt of a claim, PE will allocate a claim number and record the claim in the Extension of Time Claim Register.

### 4.7. Delays and Accelerations

When managing construction contracts, LGED staff should be aware of the <u>delays caused by LGED</u> such as: delays in issuing Drawings, Specifications, or instructions required for execution of the Works and giving the Contractor possession of the site, delays in approving Programme of Works, processing payment on time and in accordance to the schedule, delays in responding to Contractor's claims, approving process, delays due to the suspension of the Works ordered by Project Manager, delays conducting inspections and tests, delays in issuing Completion Certificate, delays in timely giving warning notes to Contractor etc.

The delays <u>caused by the Contractor</u> are commonly related to: submission of Programme of Works, delays in submission of Performance Guarantee, delays in commencing the works, delays in submitting to Project Manager early warning notifications, delays in completing the Works and physical services within the Intended Completion Date, not giving LGED staff access to the site on time for the purpose of inspection and test, delays in paying the wages to itslabourers etc.

There are also delays caused by <u>Public Authorities</u> which may disrupt contractor's Works. These public authorities delays might be considered as compensation event if nor LGED neither Contractor have not foreseen such delays and Contractor has diligently followed the procedure laid down by legally constituted public authorities.

The occurrence of the exceptional events or circumstances caused by **Force Majeure** may also cause delays in timely completion of construction works.

### **Procedure for Delays:**

 Project Manager should be aware of contractual provisions stipulating the rights and obligations of both LGED and Contractor with regards to all kind of delays which may occur during the execution of the Works.

- After contract is signed and Instruction for commencement has submitted to Contractor, Project Manager should ensure that the Contractor will commence the Work within the date specified in the instruction.
- 3) Project Manager will make sure that all payments are processed to Contractor on time;
- 4) Project Manager will work closely with Contractor in monitoring whether the progress of the works is in line the agreed schedule and assess if there is any delay.
- 5) Project Manager will give notice to Contractor in case he/she observe any potential delays which may occur.
- 6) The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

**Acceleration** occurs when LGED requests from Contractor completion of particular work activity earlier than the planned or contracted timeframe.

#### **Procedure for Acceleration:**

- If LGED wants to request from the Contractor completion of the Works before the Intended Completion Date, the Project Manager will obtain priced proposals for achieving the necessary acceleration from the Contractor.
- 2) If the priced proposal is accepted by Project Manager, the Intended Completion Date will be advanced accordingly and confirmed by both the LGED and the Contractor.
- 3) The priced proposals for acceleration accepted by both parties will be incorporated in the Contract Price and treated as a Variation.

### 4.8. Suspension of Work and Consequences

The LGED can decide to suspend the progress of part or all the Works. Such suspension of the Works may cause the delays in completion of the works and may increase the cost.

### Procedure:

- 1) Project Manager is responsible to instruct the Contractor for any suspension of the Works.
- 2) When instructing for suspension, the Project Manager should make sure that the Contractor is protecting, storing and securing such part of the Works against any deterioration, loss or damage.
- 3) When the work is suspended, the Project Manager should provide the Contractor with a notice that includes the effective date of the suspension and states the specific reason for the suspension referring to the specifications and GCC Sub Clause 49.1 (PW3); Sub Clause 49.1 (PW5) under which the action is taken, what actions the Contractor must take before resuming work and the conditions under which the suspension will be revoked.
- 4) Project Manager will issue a written suspension order except when work must be stopped at once and time does not permit issuance of a written order. A written order confirming the verbal order must be issued at the earliest possible time. Project Manager before issuing the suspension order

should make an assessment of the consequences of the suspension pertaining to the need for extension of the Intended Completion date and/or increase of the cost.

- 5) If the suspension order cause any delays and financial implications and when the suspension is due to no fault of the Contractor, and once the Contractor has submitted the claim, the Project Manager shall proceed to agree or determine the length of extension of Intended Completion Date and/or changes in the contract price.
- 6) Suspension and reasons should be recorded in the diary accordingly.

<u>NOTE:</u>The Contractor shall not be entitled to any extension of time for, or to any payment of the cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store and secure the Works against any deterioration, loss or damage as foreseen in the GCC Clause 48 (PW3); Clause 49 (PW5)

### **CHAPTER 4**

### **Forms and Flow Charts**

FORM 4/1
Agenda for initial site meeting

FORM 4/2
Project emergency contact numbers

Commencement meeting form

FORM 4/4
Drawing issue register

FORM 4/5
Early warning note

Check list for extension of intended completion date

FORM 4/7
Instruction for commencement of work

FORM 4/8 Revised Work Programme

FLOW CHART 4/1 Commencement of work

FLOW CHART 4/2 Extension of intended completion date

FORM 4/1

### **AGENDAFORINITIALSITEMEETING**

| Contractor: |  | Date: |  |
|-------------|--|-------|--|
|-------------|--|-------|--|

|     | Agenda Item                      | Торіс  |  |
|-----|----------------------------------|--|--|
| 1.  | Opening                          | Introduction   |  |
|     |                                  | General description of the contract scope                            |  |
| 2.  | Organization                     | LGED organization and its personnel involved                         |  |
|     |                                  | Contractor's organization and personnel                              |  |
| 3.  | Communication                    | Verbal communications  |  |
|     |                                  | Site memos/instructions  |  |
|     |                                  | Correspondence and drawings transmittals                             |  |
| 4.  | Program                          | Work plan and program  |  |
|     |                                  | Manpower   |  |
|     |                                  | Coordination with sub contractors                                    |  |
| 5.  | Construction material            | Supply plan  |  |
|     |                                  | Transport arrangements and storage procedures                        |  |
| 6.  | Survey and utilities/facilities  | Survey marks   |  |
|     |                                  | Construction power (if applicable) and contractor's                  |  |
|     |                                  | extensions   |  |
|     |                                  | Accommodation or camp facilities                                     |  |
|     |                                  | Water and sewerage (if applicable)                                   |  |
|     |                                  | Sewage and waste disposal  Talance and in a first and first talance. |  |
|     |                                  | Telecommunications (if applicable)                                   |  |
|     |                                  | Operation in borrow areas, quarries, disposal and stockpile          |  |
|     |                                  | areas  Other services  |  |
| 7.  | Contractor's plant and equipment | 0.000.000  |  |
| ٧.  | Contractor's plant and equipment | Proposed plant     Supply plan                                       |  |
|     |                                  | Proposed maintenance facilities                                      |  |
| 8.  | Contractor's storage areas       | Location and layout Buildings  |  |
| 0.  | Contractor 3 storage areas       | Conditions or restrictions on use                                    |  |
|     |                                  | Requirements of other contractors (if applicable)                    |  |
| 9.  | Work rules                       | Regular work hours and work outside agreed hours                     |  |
|     |                                  | Security and Camp regulations  |  |
| 10. | Safety                           | Safety provisions and procedures                                     |  |
|     |                                  | First aid and medical provisions                                     |  |
|     |                                  | Accident reporting   |  |
| 11. | Quality control program          | Inspection of the work and Testing                                   |  |
| 12. | Measurement of the work          | Agreed Method of Measurement   |  |
|     |                                  | Agreed measurement schedule  |  |
|     |                                  | Who has authority to agree measure on site (for Contractor           |  |
|     |                                  | and for LGED)  |  |
| 13. | Monthly progress statement       | Agreement of monthly progress measurements                           |  |
|     | procedure                        | Form of submittal  |  |
|     |                                  | Payment for variations   |  |
|     |                                  | Deductions for retention, etc  |  |
| 14. | Issue of variation orders        | Confirm who has authority to issue variations                        |  |
| 15. | Claims or other dispute handling |  |  |
| 16. | Reporting requirements           | Monthly reports  |  |
|     |                                  | Weekly reports?  |  |
| 17. | Drawing and data submittal and   |  |  |
|     | review procedure                 |  |  |
| 18. | Contractor's appointment of      |  |  |
|     | subcontractors                   |  |  |
| 19. | Insurance                        |  |  |
| 20. | Other matters                    |  |  |
| 20. | Outor matters                    |  |  |

# PROJECT EMERGENCY CONTACT NUMBERS

| Project Title    |          |  |
|------------------|----------|--|
| Project Location |          |  |
| Contractor       |          |  |
| Date of issue    | Revision |  |

| Service                             | Telephone Number | Name/Details/Address |
|-------------------------------------|------------------|----------------------|
| LGED representative                 |                  |                      |
| Contractor Contact                  |                  |                      |
| Site First Aid givers               |                  |                      |
| Nearest Doctor                      |                  |                      |
| Nearest Medical Clinic<br>/Hospital |                  |                      |
| Ambulance Service                   |                  |                      |
| Nearest Fire Service                |                  |                      |
| Nearest Police Station              |                  |                      |
| Services Providers                  |                  |                      |
| Electricity                         |                  |                      |
| Water Service                       |                  |                      |
| Gas Service                         |                  |                      |
| Other                               |                  |                      |

## **COMMENCEMENT MEETING FORM**

| Project Title   |                               |   |         | Meeting<br>Number    |           |
|---|-------------------------------|---|---------|----------------------|-----------|
| Meeting Purpose   |                               |   |         |                      |           |
| Meeting Locatio   | n                             |   |         | Meeting Date & Time  |           |
| Present   |                               |   |         |                      |           |
| Distribution  |                               | (additional to those pr   | resent) |                      |           |
| Notes prepared  | by                            |   |         | Distribution<br>Date |           |
| 1. Project Staff  | and K                         | ey Personnel  |         |                      |           |
| ·   | No                            | Name and surname  | Title   |                      | Phone nr. |
|   | 1                             |   |         |                      |           |
| 1.055   | 2                             |   |         |                      |           |
| LGED  | 3                             |   |         |                      |           |
|   | 4                             |   |         |                      |           |
|   | 1                             |   |         |                      |           |
|   | 2                             |   |         |                      |           |
| CONTRACTOR  | 3                             |   |         |                      |           |
|   | 5                             |   |         |                      |           |
|   | 6                             |   |         |                      |           |
|   | 0                             |   |         |                      |           |
| 2. Timing and I   | Dates (                       | Confirmation)   |         |                      |           |
| Proposed start of   | date on                       | site  |         |                      |           |
| Overall contract  | duration                      | on  |         |                      |           |
| Defects Liability   | Period                        | I   |         |                      |           |
| Note any milesto  | one/sta                       | ge completions  |         |                      |           |
| Confirmation of   | site wo                       | orking hours  |         |                      |           |
| Prior to any works<br>materials, etc, the<br>approval the follo | s being<br>e Proje<br>wing do | cement Deliverables carried out on site, incluct Manager should mak ocumentation. |         |                      |           |

Date:

Submitted by:

| • | Documented confirmation    | that all required insurances are in place |  |
|---|----------------------------|---|--|
|   | Submitted by:              | Date:                                     |  |
| • | Any Local Authority permit | s, consents, licences or fees required?   |  |
|   | Submitted by:              | Date:                                     |  |
| • | Other Requirements?        |   |  |
|   | Submitted by:              | Date:                                     |  |
|   |                            |   |  |

## 4. Project Quality Procedures Planning

The Contractor is to actively engage with, execute and comply with the LGED quality, health & safety and environmental procedures and processes as outlined within the Contract documentation.

The appropriate LGED and Contractor staffs are to meet as soon as possible prior to works commencement on site to establish and activate the procedures and controls required.

| Initial Quality Procedures Planning Programme  | LGED representative | Contractors representative | Meeting date and time | Initial once completed |
|--|---------------------|----------------------------|-----------------------|------------------------|
| Health & Safety  |                     |                            |                       |                        |
| Key issues to address:   |                     |                            |                       |                        |
| Project Site Emergency and Evacuation plan, Site Induction procedures and Site Safety Rules, Hazard Identification and Risk control assessment procedures, project safety meetings, work permit system, accident and incident reporting, safety inspections etc. |                     |                            |                       |                        |
| Environmental Management   |                     |                            |                       |                        |
| Key issues to address:   |                     |                            |                       |                        |
| Environmental Risk assessment procedures, site waste   |                     |                            |                       |                        |
| management plan, emergency   |                     |                            |                       |                        |
| details, incident and spill reporting  |                     |                            |                       |                        |
| and investigation, site  |                     |                            |                       |                        |
| environmental inspections etc.   |                     |                            |                       |                        |
| Implementation Procedures  |                     |                            |                       |                        |
| Key issue to address:  |                     |                            |                       |                        |
| Program and planning, inspection   |                     |                            |                       |                        |
| and test planning, task analysis,  |                     |                            |                       |                        |
| site inspections, trade control  |                     |                            |                       |                        |
| sheets etc.  |                     |                            |                       |                        |

## 5. Site Inspection

Is an initial site inspection prior to full site possession and works starting required? Full dilapidation report/photographic record/joint stakeholder walk round and sign off.

| required, confirm date/time and attendees involved.  |
|--|
| Date: Time:  |
| Attendees:   |
| . Construction Contract Time Frames The Construction Contract for this project outlines the timeframes and durations for the various rocesses administered within it. Both LGED and the Contractor have a contractual obligation to the timeframes detailed.   |
| mportant contractual activities such as processing interim payments, variations, extension of tim laims and certificates are governed by set time periods for each step in the process. Confirmation and clarification of exactly what LGED and the Contractors obligations are timing wise will held liminate misunderstandings in the future.  |
| <ul> <li>Piscuss and confirm under this Construction Contract:</li> <li>process and timeframe for making an Interim Payment claim:</li> <li>process and timeframe for submitting a Variation claim (LGED or Contractor requested)</li> <li>process and timeframe for submitting an Extension of Time claim</li> <li>process and timeframe for submitting a Claim (either from Contractor or LGED)</li> </ul> |
| . Programme a accordance with the relevant contract conditions, submission of the Programme of Work is due:  |
| hort term / target roll out programmes will be required based on a week wor eriod cycle.   |
| rogramme monitoring and review meetings will be held regularly throughout the project duration.  |
| B. Communication confirm that for the purpose of giving written correspondence and communication including notices equests and consents under the terms of the Contract Conditions; that the representatives an ontact details noted on Emergency contact numbers are correct and will be used throughout the ontract implementation.  |
| On completion of the initial quality procedure planning meetings, a schedule of all the propose egular project site meetings will be collated, drafted and transferred onto an overall Project Meeting chedule and issued to all relevant parties.   |
| he initial release of the meeting schedule will be produced by: and will by vailable from (Date)   |

9. General (Other items for discussion)

## **DRAWING ISSUE REGISTER**

INSERT THE NAME OF THE PROJECT

|     | INSERT THE NAME OF THE FROME OF |             |            |                     |           |      |                     |           |      |  |  |  |
|-----|---------------------------------|-------------|------------|---------------------|-----------|------|---------------------|-----------|------|--|--|--|
| No. |                                 | Description | Purpose of | IS                  | SSUED BY: | RE   | CEIVED BY:          |           |      |  |  |  |
|     | No.                             |             | issue      | Name and<br>Surname | Signature | Date | Name and<br>Surname | Signature | Date |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |
|     |                                 |             |            |                     |           |      |                     |           |      |  |  |  |

**Note:** Insert under the *Purpose of issue* the following codes: Information – I , For approval – A , For Construction – C , Preliminary-P, Other – O (specify)

# **EARLY WARNING NOTE**

| Project Title   |  | Project No.  |  |  |  |  |  |  |  |
|---|--|--------------|--|--|--|--|--|--|--|
| Location  |  |              |  |  |  |  |  |  |  |
| Name of Project Manager   |  |              |  |  |  |  |  |  |  |
| Name of Contractor  |  | Contract No. |  |  |  |  |  |  |  |
| EARLY WARNING NOTIFICA  | TION                                       | EW No.       |  |  |  |  |  |  |  |
| Issued: Contractor to Project   | Manager                                    |              |  |  |  |  |  |  |  |
| Description of early warning:   |  |              |  |  |  |  |  |  |  |
| Increase the total contract price Delay Completion  Impair the performance of the | Impair the performance of the works in use |              |  |  |  |  |  |  |  |
| Signed by:  | (Contractor) <b>Date</b> :                 |              |  |  |  |  |  |  |  |

# CHECK LIST FOR EXTENSION OF INTENDED COMPLETION DATE

| Project name:                    |             |      |  |
|----------------------------------|-------------|------|--|
| Name of the Contractor           |             |      |  |
| Contract number:                 |             |      |  |
| Name of Project Manager          |             |      |  |
|                                  |             |      |  |
|                                  |             |      |  |
| Claim No.:                       |             |      |  |
| Contractor's claim reference:    |             |      |  |
| Time claimed:                    |             |      |  |
| Time in calendar or working days |             |      |  |
| Cause of delay:                  |             |      |  |
| Applicable Contract clause:      |             |      |  |
| Any associated notice provisions |             |      |  |
| Notice provisions complied with? |             |      |  |
| Programme of Works checked?      |             |      |  |
| Extension of time justified?     | Yes 🗌       | No 🗌 |  |
| Period recommended:              |             |      |  |
|                                  |             |      |  |
|                                  |             |      |  |
| Signed by:                       | Date:       |      |  |
| (Project Manager)                | <b>Dato</b> |      |  |



#### Local Government Engineering Department (LGED)

#### INSTRUCTION FOR COMMENCEMENT OF WORK

| Office Memo No:      | Date: |
|----------------------|-------|
| То:                  |       |
| [Name of Contractor] |       |
| [Address)            |       |
| Contract Reference:  |       |

Pursuant to GCC Sub Clause 39.1 (PW3); Sub Clause 40.1 (PW5) \_) of the above mentioned Contract Agreement, this is to notify you that the following precedent conditions have been duly fulfilled:

- (i) the Contract Agreement has been signed;
- (ii) the possession of the Site has been given; and
- (iii) the advance payment has been made (delete if not appropriate).

You are therefore requested to:

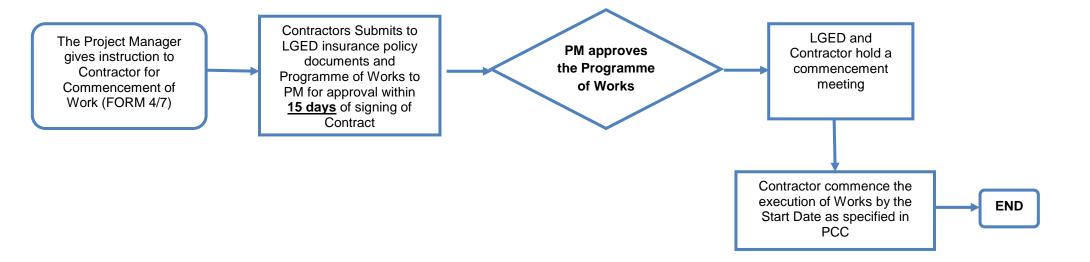
- Commence execution of the Works, in accordance with GCC Sub Clause 1.1(w)(PW2);
   Sub Clause 1.1(nn)(PW3); Sub Clause 1.1(oo)(PW3) within (<u>specify date</u>);
- 2. Submit Insurance Policy Documents, in accordance with GCC Sub Clause 36.2(PW3); Sub Clause 37.2(PW5) within (*specify date*) applicable only for Pw3 and Pw5
- 3. Submit Programme of Works, in accordance with GCC Sub Clause 12.1(PW2); Sub Clause 41.1(PW3); Sub Clause 42.1 (PW5), within (*specify date*)

Signed by: [name of authorized Project Manager]
Date:

## REVISED WORK PROGRAMME FORM 4/8

|    | Name of the         | ne Work:               |      |                 |                 | N               | Name            | of Up           | azila:          |                 |                 |                 |                 | Nam             | e of l          | Jpazila         | a: _            |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 |   |
|----|---------------------|------------------------|------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---|
|    | Start Day:          |                        |      |                 |                 | E               | End D           | ay:             | _               |                 |                 |                 |                 | _Tota           | l worl          | king D          | ays:_           |                 |                 |                    | _               |                 |                 |                 |                 |                 |                 |   |
| SI | Desc                | ription                |      |                 | Jan             | 1 2016          |                 |                 | Feb             | 2016            |                 |                 | March           | h 2016          | ;               |                 | April           | 2016            |                 |                    | May             | 2016            |                 |                 | June            | 2016            | ,               | T |
| No | Work<br>Component   | A ativities            | Days | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 1 <sup>st</sup>    | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | I |
| 1  | Site Pos            | session                |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 | - |
|    |                     | M-Testing              |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 | Ī |
| 2  | Protection<br>Work  | M-Mobilization         |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 | - |
|    |                     | Work<br>Execution      | 1    |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 | May 2016 June 2016 |                 |                 |                 |                 |                 |                 |                 |   |
| 3  | Earth               | Work                   |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 | Ī |
|    |                     | M-Testing              | 1    |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 | <del> </del>    |                 | - |
| 4  | Surfacing<br>Damage | M-Mobilization<br>Work |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 | ] |
|    | Repair              | Execution              |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 | 1 |
| 5  | Surfacing<br>Work   | M-Testing              |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 | - |
|    | WOIK                | M-Mobilization<br>Work |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 | ] |
|    |                     | Execution              |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 | _ |
| 6  |                     | npletion &<br>nd Over  |      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 |   |
|    |                     | Material Testing       |      |                 |                 |                 |                 |                 |                 |                 |                 | _               |                 |                 |                 |                 |                 |                 |                 |                    |                 |                 |                 |                 |                 |                 |                 |   |
|    |                     | Material Mobiliza      |      | gnatı           | ure of          | the C           | ontra           | ctor            |                 | Che             | cked            | by:             |                 |                 |                 |                 |                 | _ Ap            | prove           | d by:              |                 |                 |                 |                 |                 |                 |                 |   |

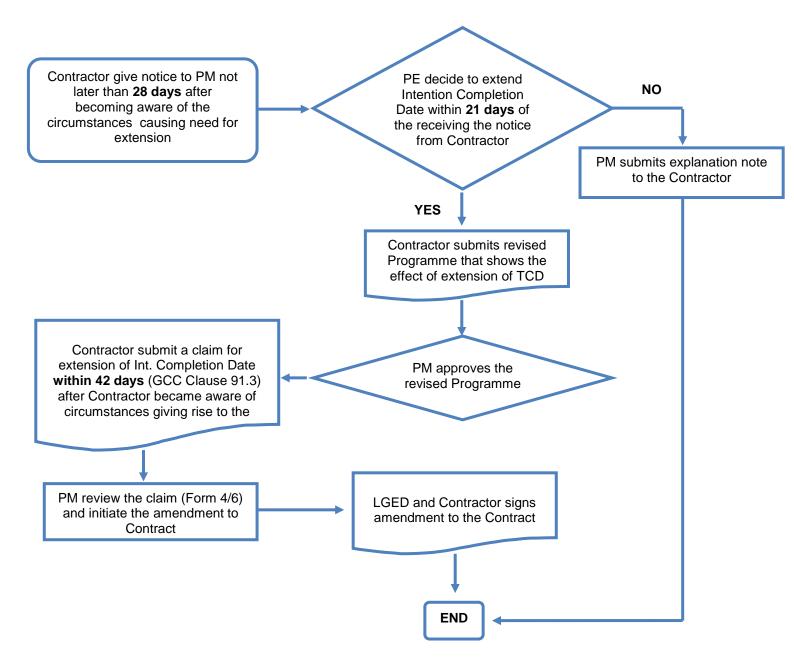
## FLOW CHART 4/1 – COMMENCEMENT OF WORK



## Notes:

- 1. The Project Manager will give instruction to Contractor for Commencement of work after the following conditions have been dulyfulfilled:
  - Contract Agreement has been signed;
  - > Contractor received advance payment (when applicable) and
  - Possession of Site is given to the Contractor
- 2. Project Manager should be proactive and liaise with Contractor after giving instruction to prevent potential delays
- 3. If Contractor does not commence the Works as per instruction, the Project Manager should submit a warning letter to Contractor.

## FLOW CHART 4/2 - EXTENSION OF INTENDED COMPLETION DATE



#### Note:

- 1. PE may extend the Intention Completion Date by 20% of the contract time.
- 2. The approval of HOPE is required for extension of more 20% of contracted time
- 3. According to GCC Clause 21 (PW2), Clause 67 (PW3) and Clause 71 (PW5) the following are considered as compensation events, based on which Contractor can claim the extension of Intended Completion Date:
- a) LGED does not give Contractor access to the site
- b) LGED modified the schedule of other Contractors
- c) PE/PM orders delay or does not issue instructions required for executions of Works
- d) The PE/PM unreasonably does not approve subcontract to be let
- e) It is assessed that ground conditions are more adverse and they can cause delays or extra costs to the Contractor
- f) The advance payment is delayed

- g) The effect on Contractor of any LGED risks
- h) PE/PM unreasonably delay in issuing a Completion Certificate
- The occurrence of Force Majeure as defined in GCC
- j) Other Contractors, public authorities, utilities or PE/PM cause delays
- k) PE/PMinstruct Contractor to carry out additional tests resulting in finding no defects
- I) Any other compensation event stipulated in contract

### 5. QUALITY CONTROL

Quality control and assurance are vitally important to a successful construction project and should be adhered to throughout the project from the commencement and design phases and throughout the construction and installation phases. A good quality assurance system during the construction of the works will ensure longevity of the construction itself.

## 5.1. Inspection and Testing

Having a good quality assurance process in place means conducting regular inspections to ensure that the works are completed in conformity with the drawings, Bills of Quantities (BOQ) and technical specifications. Regular inspections during construction will prevent costly repairs after the project is completed.

- 1) Based on the specifications and quality control requirements, the Project Manager will develop and agree with the Contractor on the inspection course of action, to make sure that the works are completed in line with the contracted quality standards.
- 2) During the course of inspection, the Project Manager and site staff in charge of inspection should check whether the Contractor is constructing, installing and carrying out the Works and physical services in accordance with the Specifications and Drawings as stipulated in the contract.
- 3) The Project Manager should give advance notice to the Contractor in case the LGED representatives are planning the examination, inspection, measurements, testing or supervision of the works under the Contract. The Project Manager can decide for such quality assurance actions at any time when he/she assess as necessary while Contractor is obliged to allow access to the Site all the time during the execution of the works.
- 4) The supervision, equipment, location of the material and the type of testing should be described. As e regular practice, the testing will be conducted using the LGED laboratory. However, if tests require special equipment they are to be performed by outside laboratories.
- 5) The Project Manager is responsible to check the Works executed by the Contractor and to notify the Contractor of any Defects found.
- 6) The Project Manager may also instruct the Contractor to search for a defect, to uncover and test any work that the Project Manager considers may have a Defect.
- 7) The Project Manager may instruct the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect. In case that such the test shows any defect, the Contractor shall pay for the test and any samples. If there is no Defect, The Project Manager shall instruct the Contractor on the procedure for reimbursement of the related costs.
- 8) Project Manager may decide to reject the Work if the result of examination, inspection, measurement of Works shows that the works are not constructed in accordance with a Contract. Further to a decision for rejection of Works, Project Manager should give notice to the Contractor with detailed explanation.

- 9) FORM 5/1 (INSPECTION & TEST PLAN) will be used for planning purposes to identify the key performance criteria for the works and allow allocation of appropriate implementation control measures to assist achieving the required outcomes. Furthermore, such a plan will provide a framework for the works to be packaged into controllable portions, where specific risk and specification requirements can be identified and controlled.
- 10) PE/PM and assigned other LGED Engineers, under their duties and responsibilities are in charge of regular supervision of the works and conducting other necessary activities to ensure quality of the construction works. The supervision should be conducted at a frequency to ensure that elements of the work are in compliance with the specified standards.
- 11) The supervision team should be aware of the works that will become covered and cannot be inspected after the fact. This includes concrete, where the size, number, and location or reinforcing steel cannot be readily determined after the concrete is placed. Likewise, underground utilities cannot be inspected after covering. Work of this nature must be closely controlled and monitored during construction.
- 12) FORM 5/2 (INSPECTION REPORT) should be completed by the Project Manager or by the Engineer assigned by the Project Manager for inspection. The purpose of reporting is to document the observation, investigation and analysis of inspection work. Summary items that have been corrected with the date completed and items requiring additional time to complete should also be included in the inspection report.

### Responsibilities:

#### The Project Manager is responsible for:

- Preparing and managing the quality assurance plan, including supervision, inspections, measurements, tests and examinations.
- Supervise the staff in charge of quality assurance, to ensure that the inspection is done in conformity to the highest quality standards
- Ensure proper recording and filing of inspection work and test results

#### <u>Project Manager's delegates are responsible for:</u>

- Assisting the Project Manager in preparation of the inspection and supervision plan;
- Conduct regular supervision and inspection of the work to ensure the works are done in full compliance with the specifications and drawings;
- Recording all quality assurance activities and filing all related documents accordingly;
- All field staff are responsible for quality assurance and identifying of non-conformances;

## 5.2. Measurement of Works

Except as otherwise stated in the Contract, measurement shall be made of the net actual quantity of each item of the permanent works and the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules. Measurement is practically made for finished items of work and the description of each item shall include materials, transport, labour, fabrication tools and plant and all types of overheads needed to complete the work to the required shape, size and specification.

#### Procedure:

- 1) Whenever the LGED requires any part of the Works to be measured, the Project Manager will give a reasonable notice (FORM 6/1MEASUREMENT NOTICE FORM) to the Contractor's Representative, who shall:
  - a) Promptly either attend or send another qualified representative to assist the LGED representative in making the measurement; and
  - b) Supply any particulars requested by the LGED.
- 2) The Project Manager and Contractor's representative staff should meet on a regular basis to review measurement records and quantity calculations. These meetings must ensure that all items are measured and measurements, calculations, etc., are correct.
- 3) Project Manager may exclude any item certified in a previous certificare or reduce the proportion of any items previously certified in any certificate in the light of later information.. Pay quantities will be reconciled or provisional payments will be made on Project Manager's calculations and payment will be corrected on following Interim Certificate. The
- 4) Project Manager will review Interim Statements based on quantity survey (FORM QUANTITY SURVEY FOR COVERED ITEMS), calculations and other data submitted to him/her by site staff and the Contractor. Interim Statements will be reviewed by the Project Manager and certified prior to forwarding to the LGED for payment.
- 5) The method of measurement for each item will be agreed upon with the Contractor and the agreement should be recorded accordingly.
- 6) The representative of the Contractor should be present during all kind of measures and should sign the FORM 6/2.
- 7) All calculations will be made on standard calculation sheets. It is essential that calculations are clear, concise and set out to make for easy verification and cross checking.

#### 5.3. Remedial Works

Remedial works refers to corrections of any defects of the works that are not in accordance with the contract.

- 1) A non-conformance procedure should be initiated when it is noted that the works on the project are not executed in line with contracted standards.
- 2) If any inspection reveals that the works are not in line with the specifications, the Project Manager shall immediately inform the Contractor and issue a Defect Correction Notice (FORM 5/3).
- 3) Details of the non-conformance are to be recorded so that notice can be given to the concerned parties that a non-conformance has occurred and that remedial work is required to be undertaken.
- 4) Project Manager may instruct the Contractor to remove from the Site and replace any Plant or Materials and/or remove and re-execute any other work which is not in accordance with the Contract and in line with GCC;

- 5) Project Manager may instruct Contractor to execute any work which is considered to be urgent in order to ensure safety of the Workers, whether because of an accident, unforeseeable event or otherwise.
- 6) If the Contractor fails to comply with the instruction issued for remedial work within the time specified in the instruction, the Project Manager should consider the option to employ and pay other persons to carry out the works, as specified in GCC;
- 7) Project Manager shall give notice to the Contractor of any Defect before the end of the Defect Liability Period which is specified in the PCC.
- 8) Project Manager will ensure that the Contractor corrects all non-conformances.
- 9) When needed, the Project Manager will initiate extension of Defect Liability Period for as long as Defects remain to be corrected.
- 10) Inspection teams should carry out follow-up inspections to verify that the remedial work has been carried out. Findings of follow up inspections should be recorded.
- 11) If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the PE/PM shall assess the cost of having the Defect corrected by LGED, and the Contractor shall remain liable to pay the expenditures incurred on account of correction of such Defect.
- 12) Depending on special project requirements, a lesson learned report can be prepared to highlight any significant issue or event that required remedial or corrective action on the project for the purpose of eliminating reoccurrence in the future on other LGED projects. Along with lessons learned, any suggested improvements to the LGED infrastructure project implementation process should also be detailed and recorded as part of the Lessons Learned process. As a good contract management practice, the lessons learned report may be shared widely with LGED.
- 13) The Assistant Upazila Engineer (Upazila level), Senior Assistant Engineer (District level) or other assigned LGED staff shall keep the summary record and log of all project non-conformances raised.

#### 5.4. Control of Sub-contractors

- The Contractor will be legally responsible to LGED for the quality of the works performed by subcontractors.
- 2) The Project Manager should promote a good cooperation and coordination among LGED, Contractor and all subcontractors.
- 3) Subcontractors named in the Contract shall be entitled to execute the specific components of the Works stated in the PCC.
- 4) The prior consent, in writing, of the Project Manager shall however be obtained for other proposed Subcontractor(s).

- 5) In terms of quality assurance activities (supervision, inspections, measurements, tests) all above mentioned procedures apply for subcontractors, given that the proper communication is established between all parties.
- 6) The Project Manager should identify and address any issues arising between the Contractor and subcontractor/s which might, in any form, jeopardize the successful execution of the works as per the required standards.
- 7) The Project Manager should also be aware of the consequences of compliance with the payment obligations of Contractors to subcontractors and suppliers. The Contractor should pay its subcontractors and suppliers in accordance with the provisions of the relevant contract and ensure that labourers employed in the execution of the Works, whether by the Contractor or by its Subcontractors, are paid in accordance with their respective contracts and the Laws.
- 8) The Project Manager will make sure that all sub-contractors are fully complying to the highest standard of ethics during the execution of the Contract under public funds.

## 5.5. Photographs

Photographs are used in infrastructure projects to certify the progress achieved and also to provide a record of various events and issues.

- 1) The site staff will document the works through photographs. These shall include:
  - a) Views of major construction projected during various stages of progress;
  - b) Materials or construction related to changed conditions, claims, or potential claims;
  - c) Work in place for which removal has been ordered because of noncompliance with plans and specifications;
  - d) Photos of technical interest;
  - e) Bad and good safety practices by the Contractor;
  - f) New methods of construction;
  - g) Property or material damages;
  - h) Manufacturer's labels and installation instructions;
  - i) Emergency conditions and safety violations;
  - j) Accident scenes; and,
  - k) Defective work
- 2) While site staffs are responsible for taking pictures on a regular basis, the Project Manager should also arrange twice monthly photographs of all major parts of the project. It is strongly recommended that photos are taken from the same vantage point to provide a clear comparison of progress.
- 3) The Project Manager should instruct the Contractor on the location where photos are to be taken. FORM 5/4 (INFORMATION ON PHOTOGRAPHS) should be used for instruction purposes. The Project Manager will monitor the Contractor to ensure that photos have been taken.
- 4) Photographs/videos should be taken from the perimeter of the area in toward the center in increasingly close shots. Be sure to capture all objects and markings thoroughly so they can be identified later.
- 5) Once the photographs are delivered, the Project Manager will check them for compliance- if the each photograph taken is completely described, identified, and dated.

- 6) When possible, photographers should use tape measures or other readable measured devices with pictures to show actual sizes and distances.
- 7) The Project Manager should advise the Contractor not to publish any photographs of the Works or allow the Works to be used in any form of advertising whatsoever without the prior approval in writing from the LGED.
- 8) The Assistant Upazila Engineer (Upazila level), Senior Assistant Engineer (District level) or other assigned LGED staff will keep a record of photographs taken by site staff.

## **CHAPTER 5**

# **Forms and Flow Charts**

FORM 5/1 Inspection & test plan

FORM 5/2 Inspection report

FORM 5/3 Defect correction notice

FORM 5/4 Information on photographs

FLOW CHART 5/1 Inspection

FLOW CHART 5/2 Remedial work

Form 5/1

## **INSPECTION & TEST PLAN**

"Insert the name of the project"

| Item | Reference | Type of Test | Quality<br>Assurance<br>Acceptance<br>Criteria | Frequency of<br>Testing |  |  | Comments<br>/Status |
|------|-----------|--------------|--|-------------------------|--|--|---------------------|
|      |           |              |  |                         |  |  |                     |
|      |           |              |  |                         |  |  |                     |
|      |           |              |  |                         |  |  |                     |
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|      |           |              |  |                         |  |  |                     |
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|      |           |              |  |                         |  |  |                     |
|      |           |              |  |                         |  |  |                     |
|      |           |              |  |                         |  |  |                     |

| Prepared by: | Date: |
|--------------|-------|
|--------------|-------|

FORM 5/2

## **INSPECTION REPORT**

| Projec      | t title:            |        |  |                           |                |
|-------------|---------------------|--------|--|---------------------------|----------------|
| Contra      | ct number:          |        |  |                           |                |
| Location    | on:                 |        |  |                           |                |
| Report      | : No.               |        |  |                           |                |
|             | of the Project Man  |        |  |                           |                |
| Purpos      | se of the inspectio | n:     |  |                           |                |
|             | undersigned agree   |        | tcome detailed below as a true re(insert date of inspection) | ecord of the insp         | ection carried |
| Item<br>No. | Location            |        | Description  | Completed works component | Checked by     |
|             |                     |        |  |                           |                |
|             |                     |        |  |                           |                |
|             |                     |        |  |                           |                |
|             |                     |        |  |                           |                |
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|             |                     |        |  |                           |                |
|             |                     |        |  |                           |                |
|             |                     |        |  |                           |                |
|             |                     |        |  |                           |                |
|             |                     |        |  |                           |                |
| Signed      | by:Project M        | lanage | Date   | :                         |                |

Form 5/3

# **DEFECT CORRECTION NOTICE**

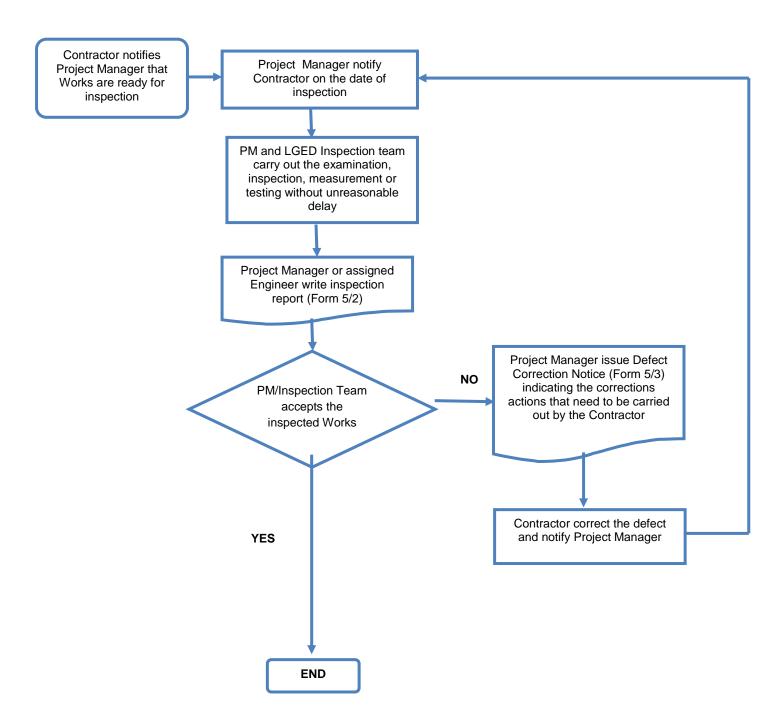
| FROM:                        | "insert the name of Project Manager"  |  |  |
|------------------------------|---|--|--|
| то:                          | "insert the Contractor's details"   |  |  |
| Project name:                |   |  |  |
| Contract number:             |   |  |  |
| DCN No.                      |   |  |  |
|                              |   |  |  |
| Hereby, we notify you that   | ☐ Test/ ☐ Inspection ☐ Other (pls. specify)   |  |  |
|                              |   |  |  |
|                              | ments of the Specification/Drawing. The Specification/Drawing   |  |  |
|                              | , Clause, Drawing Number Under  |  |  |
|                              | cation/Drawing, the requirements are:   |  |  |
|                              |   |  |  |
|                              | e required to be removed and replaced at no cost to the LGED.   |  |  |
|                              | etermine the corrective action necessary, and to determine whether you wish to additional investigation confirms or refutes the initial findings. |  |  |
| Your proposed remedial acti  | on should be submitted for review.  |  |  |
| Project Manager:             | Date:   |  |  |
| Defect Correction Notice rec |   |  |  |
|                              |   |  |  |
| Contractor Representative    |   |  |  |
| Remedial action approved     |   |  |  |
|                              |   |  |  |
|                              |   |  |  |
|                              |   |  |  |
| Remedial action completed    | d :   |  |  |
|                              |   |  |  |
| Project Manager              | Date  |  |  |

FORM 5/4

## **INFORMATION ON PHOTOGRAPHS**

| Project title:                  |                 |   |
|---------------------------------|-----------------|---|
| Contract number:                |                 |   |
| Name of Contractor              |                 |   |
| Date of last photos taken       |                 |   |
| In accordance to Clause         | of the contrac  | ted specification, you are instructed to take |
| the following photographs:      |                 | ,   |
| Location                        | Description     | Number of photos                              |
|                                 |                 |   |
|                                 |                 |   |
|                                 |                 |   |
|                                 |                 |   |
|                                 |                 |   |
|                                 |                 |   |
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|                                 |                 |   |
|                                 |                 |   |
|                                 |                 |   |
| The photographs are to be taker |                 |   |
| fromto                          | andsubmitted ir | n the specified format and numbers by         |
| ·                               |                 |   |
|                                 |                 |   |
| Project Manager                 |                 | Date  |
| r roject ivianayer              |                 | Dale  |

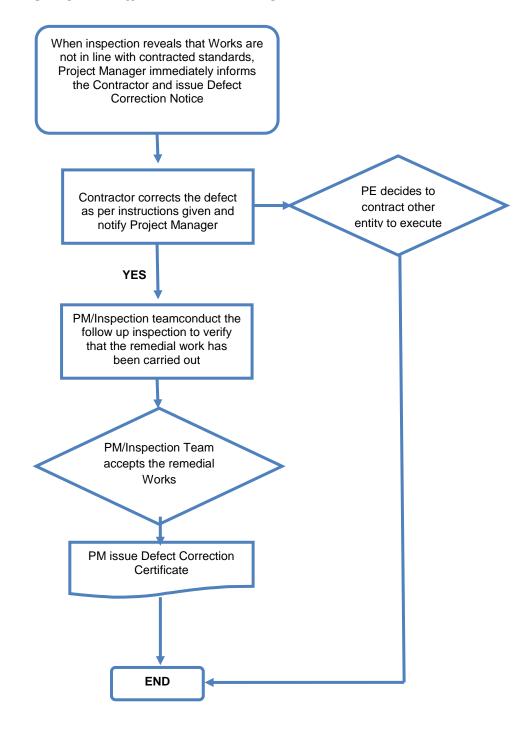
#### FLOW CHART 5/1 - INSPECTION



## Note:

Project Manager may instruct the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect. In case that such the test shows any defect, the Contractor shall pay for the test and any samples. If there is no Defect, The Project Manager shall instruct the Contractor on the procedure for reimbursement of the related costs.

## FLOW CHART 5/2 - REMEDIAL WORK



## Note:

- 1. Project Manager shall give notice to the Contractor of any Defect before the end of the Defect Liability Period which is specified in the PCC.
- 2. If the inspection is carried out after issuance of Completion Certificate, when needed, the Project Manager will initiate extension of Defect Liability Period for as long as Defects remain to be corrected
- 3 Contractor shall pay to LGED all costs arisen from the failure of the Contractor to comply with PM instructions in Defect Correction Notice

#### 6. COST CONTROL

Cost control is a very important issue during the management of a construction project and should continue throughout the whole construction period to ensure that the costs of construction remain under control. The activity of Cost control involves the calculations based on the measurement of the works completed on site and certification of regular payments to the Contractor through to monitoring the progress of costs against the budget and work progress.

The Project Manager should monitor closely the actual costs and cash flow compared to planned costs and cash flow and take early action to correct where necessary, in order to maintain the project within budget. Furthermore, the Project Manager will ensure the timely payment of the Contractor and proper financial management to mitigate the risks from price escalation.

## 6.1. Payment Procedure

The Contractor is paid for the quantity of the work done at the rate in the BOQ for each item. Payments will be made based on:

- a) quantities calculated from drawings using measured field dimensions and levels
- b) quantities physically measured in the field
- c) quantities based on weight either calculated or physically weighed

All payments to the Contractor shall be made into the Bank Account, in any scheduled Bank of Bangladesh, of the legal title of the Contract specified in the PCC, nominated by the Contractor in the currency specified in the Contract.

### 6.1.1. Advance Payments

- 1) The Procuring Entity shall proceed with advance payment once the contract agreement has been signed and if there is contractual provision for advance payment and only after the Contractor has provided the LGED with an irrevocable unconditional Bank Guarantee. The amount of the advance payment and Bank Guarantee will be specified in PCC.
- PE/PM may request Contractor to submit copy of invoices to demonstrate that advance payment has been used for Equipment, Plant, Materials, and mobilization expenses as specified in GCC Sub Clause 73.2.(PW3); Clause 78.3.(PW5);
- 3) When processing the interim payments, the Project Manager will notify Procuring Entity pertaining to amortization of advance payment by deducting at proportionate following the schedule of completed percentages of the Works as specified in the PCC.
- 4) The amortization of advance payment should be completed by twenty-eight **(28) days** prior to the expiry date of the Guarantee. If the advance payment is not fully amortized within the timeframe of twenty-eight **(28) days**, the Contractor shall correspondingly extend the validity of the Guarantee for a period so long the advance payment is fully repaid.
- 5) The PE/PM will instruct the release of the Bank Guarantee for advance payment when the same has been fully amortized.

### 6.1.2. Interim Payments

- 1) PE should check and certify the monthly statements submitted by the Contractor which presents the estimated value of the works executed less the cumulative amount certified previously.
- 2) When reviewing the monthly statements, PE may decide to exclude any item or reduce any proportion certified previously in the light of later information. The value of work executed shall be determined by the Procuring Entity/Project Manager.
- 3) The interim payments should be subject to adjustments for deductions for advance payments, retention and any other additions or deductions which may have become due under the Contract or otherwise including those resulting from claims, disputes and arbitration procedures.
- 4) Upon certifying the amount in the monthly statement, Project Manager will submit to Procuring Entity the Payment Certificate (Form 6/7) for processing the payment. In addition, Quantity Survey for Covered Items (FORM 6/2) should be filled out and signed by PE/PM and Contractor's representative and Quantity Survey for Covered Itemswill be payment supporting document. Each form should be completed for every invoice.
- 5) Procuring Entity should make sure that the Contractor is paid within twenty-eight **(28) days** of the date of each certificate.

### 6.1.3. Final Payment

- The Contractor shall notify Procuring Entity/Project Manager for issuing the Completion Certificate for Works and submit detailed account of the total amount that the Contractor considers payable under the Contract before the end of the **Defects Liability Period.**
- 2) The Procuring Entity/Project Manager shall certify the Final Payment within fifty-six (56) days of receiving the Contractor's account if the payable amount claimed by the Contractor is correct and the corresponding works are completed.
- 3) If Procuring Entit/Project Manager assess that the payable amount claimed and the works are not completed, he/she will issue within fifty-six 56 days a Defect Liability Schedule to allow Contractor the requested corrections.
- 4) If the Final Account of Works resubmitted is still assessed to be unsatisfactory, the Procuring Entity/Project Manager shall decide on the amount payable to the Contractor and issue payment certificate.

## 6.1.4. Payment uponTermination of Contract

- 1) If the Contract is terminated because of a fundamental **breach of contract by the Contractor**, the Procuring Entit/Project Manager shall issue a certificate for the value of the Works done and Plant and Materials ordered. The value will be decreased for advance payments received up to the date of the issue of the certificate and for any amount from percentage to apply to the contract value of the works not completed, as indicated in the PCC). Please follow the procedure for termination of the contract due to fundamental breach of contract by the Contractor, explained under the Chapter 8 (Procedure nr.4,5 and 6).
- 2) If the Contract is terminated because of a fundamental breach of Contract by the LGED, the

Procuring Entit/Project Manager shall issue a payment certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's foreign personnel employed solely on the Works and recruited specifically for the Works, and the Contractor's costs of protecting and securing the Works. The value will be decreased for advance payments received up to the date of the certificate.

- 3) If the Contract is terminated for reasons of *Force Majeure*, the Procuring Entit/Project Manager shall determine the value of the work done and issue a Payment Certificate which shall include:
  - a) The amounts payable for any work carried out
  - b) The cost of Plant and Materials ordered for the Works which have been delivered to the Contractor or of which the Contractor is liable to accept delivery;
  - c) Other costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
  - d) The cost of removal of Temporary Works and Contractor's Equipment from the Site; and
  - e) The cost of repatriation of the Contractor's staff and labour employed wholly in connection with the Works at the date of termination.

### 6.1.5. Delayed Payment

The Procuring Entit/Project Manager should make every effort to pay the Contractor as per the schedule of payment indicated in the contract. However, if the LGED makes a late payment, the Contractor shall be paid interest on the late payment in the next payment at the rate as specified in the PCC. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made.

#### 6.2. Issue of Variation and Extra Work Order

Variations are changes in the scopeofwork i.e. usually changes that ariseduringthe course of the project fromproject internal reasons. The needofvariationsandprojectchanges may ariseasaconsequenceof both positive and negative reasons; such as poorinitialplanning, designerrors, technical innovation, modernization, emerging ofnew products, changes in plans, or unexpected conditions on site, etc.

Variation may include:

- a) Changes to the quantities of any item of work included in the Contract;
- b) Changes to the quality and other characteristics of any item of work;
- c) Changes to the levels, positions and/or dimensions of any part of the Works;
- d) Omission of any work unless it is to be carried out by others;
- e) Any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated testing, boreholes and other testing and exploratory work; or
- f) Changes to the sequence or timing of the execution of the Works.

Variations can result in claims for payment, over and above the cost of the work. The claims may be submitted for increased overheads, extensions of time and other issues not foreseen when individual variations are being processed. In case that a variation is issued after the time for completion has passed, the variation can affect the recovery of liquidated damages.

#### Procedure:

1) Contactor shall deliverwritten notice to Procuring entitywithin7 (seven) calendar days of being aware of the need for Variation Order, giving the full and detailed particulars of any extra costs in

order that it may be investigated at that time, and failure to provide such notice shall constitute a waiver by the Contractor for any claim. The Project Manager will make sure the Contractor submit the Notice for Variation Order (FORM 6/5) or Notice for Extra Work Order (applicable only for Pw3 and Pw5-FORM 6/6) if there is necessary for additional works to be carried out the Contractor.

- 2) If the Project Manager deems it necessary that a Variation or Extra Work Order should be issued, he or she shall prepare the proposed order accompanied with the notices submitted by the Contractor, the necessary plans, his or her computations as to the quantities of the additional Works involved per item indicating the specific locations where such Works are needed, the date of his or her inspections and investigations thereon, and the Site Order thereof, and a detailed estimate of the unit cost of such items of work, together with his or her justifications for the need of such Variation or Extra Work Order, and shall submit the same to the Approving Authority.
- 3) The Approving Authority,inaccordance with DoFP, shall approve the Variation Order or Extra Work Order, after review and satisfaction with the justification, plans, quantities, and proposed unit cost of the new items of work involved if the Variation is within the threshold specified in Schedule II, or shall arrange to obtain approval from the authority next higher than the authority who approved the original contract in line with Rule 74(4) of PPR.
- 4) Once approved by the Approving Authority, the Project Manager will issue a Variation Order (FORM 6/3) to the Contractor.
- 5) Once approved by the Approving Authority, the Project Manager may issue an Extra Work Order (applicable only for PW3 and PW5 Form 6/4) to cover the introduction of such new works necessary for the completion, improvement or protection of the original works which were not included in the original contract.
- 6) The Head of Procuring Entity may, subject to the availability of funds, in the event of extreme emergency and when time is of the essence, authorize the immediate start of work under any Variation or Extra Work Order; provided that the cumulative increase in the value of the Works not yet duly approved does not exceed ten (10) percent of the adjusted original Contract Price., and after approval of Approving Authority.
- 7) Any cumulative Variation Orders or Extra Work Orders beyond fifteen (15) percent of the original Contract price shall be the subject of another separate contract to be tendered out provided that the Works are separable from this Contract. In these cases, no work shall be commenced unless the said Variation or Extra Work Order has been approved by the Head of Procuring Entity. (applicable only for PW5).
- 8) All Variations and Extra Work Orders under the Contract shall be included in the updated Programme of Works produced by the Contractor. The Contractor shall submit the updated Programme of Work and seek approval of PE/PM.
- 9) The value of the variation will be agreed with the Contractor before the variation is ordered.
- 10) If the Contractor's priced quotation is found to be unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 11) The time for processing of a Variation or an Extra Work Order from its preparation to approval should not exceed thirty (30) days from its preparation to approval.
- 12) The assigned staff in charge of filing system should file variation documents.

Example: The total cost under the item for installation in BoQ is 1,000,000.00 BDT. During the execution of the Works the cost for installation has been increased to 1,800,000.00 causing the contract increase to 1.5 %. In such cases, Project Manager shall initiate adjustment of unite rate for installation. If there non-tendered item than Project Manager should follow the LGED rate schedule.

If the final quantity of the work done for any particular item in the BOQ increases by more than twenty-five (25) percent and, such increase in quantity of that particular item alone concurrently causes the original Contract Price to exceed by more than one (1) percent, the Project Manager shall adjust the unit rate of the item to allow for the change.

#### 6.3. Amendment to Contract

An Amendment to the Contract will be required when there is a change to the fundamental Terms or Conditions of Contract, or work is to be instructed that goes beyond the original scope or nature of the Works.

#### Procedure:

- 1) The Project Manager should address all issues/claims for contract amendments and shall provide his/her own assessment as needed. The LGED shall amend the Contract, incorporating the changes approved, in accordance with the Delegation of Financial Power or Sub-delegation thereof and, introduced to the original terms and conditions of the Contract
- 2) The Contract may not be amended except in writing signed by a duly authorized representative of each of the Parties.
- 3) The Form 6/10 should be used for contract amendment.

#### 6.4. Compensation Events

Compensation events are circumstances that might arise during the execution of contract resulting in change the cost of the work or the time needed to complete the Works. As a result, the prices, key dates or the completion date may be reassessed. According to GCC Clause 21 (PW2), Clause 67 (PW3) and Clause 71 (PW5) the following are considered as compensation events, based on which Contractor can claim the compensation from Procurement Entity:

- a) LGED does not give Contractor access to the site
- b) LGED modified the schedule of other Contractors
- c) PE/PM orders delay or does not issue instructions required for executions of Works
- d) The PE/PM unreasonably does not approve subcontract to be let
- e) It is assessed that ground conditions are more adverse and they can cause delays or extra costs for Contractor
- f) The advance payment is delayed
- g) The effect on Contractor of any LGED risks
- h) PE/PM unreasonably delay in issuing a Completion Certificate
- i) The occurrence of Force Majeure as defined in GCC
- j) Other Contractors, public authorities, utilities or PE cause delays
- k) PE/PM instruct Contractor to carry out additional tests resulting in finding no defects
- I) Any other compensation event stipulated in the contract

#### Procedure:

- Upon receiving the claim from the Contractor demonstrating the effect of each compensation events and his cost forecast, Project Manager is responsible to assess and decide whether and by how much the Contract Price will be increased and/or intended completion date extended.
- 2) If the Contractor's cost is acceptable, Project Manager shall adjust it accordingly.
- 3) If the Project Manager doesn't agree with Contractor's forecast on the price, he/she will initiate adjustment of the Contract Price based on his/her own forecast.

## 6.5. Price Adjustment

Prices shall be adjusted for fluctuations in the cost of inputs if provided for in the PCC. If so provided, the amounts as certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amount. The formula indicated below applies:

P = A + B (Im/Io)

Where: **P** is the adjustment factor

 $\boldsymbol{A}$  and  $\boldsymbol{B}$  are Coefficients specified in the PCC, representing the nonadjustable and

adjustable portions, respectively, of the Contract; and

Im is the Index during the month the work has been executed and

lo is the Index prevailing twenty-eight (28) days prior to the deadline for submission of

Tender.

The Indexes to be used are as published by the Bangladesh Bureau of Statistics (BBS) on a monthly basis. In case this is not available, then other countries or authorities of the sources mentioned in **Appendixto the Tender** may be used.

Example: In cases when there is a need to adjust a unit rate fornon tender items the LGED Rate Schedule should be followed during the contract execution.

### 6.6. Performance Security

A Performance Security should be requested by LGED from the selected Contractor in order to mitigate the risks of non-performance and breach of contractual obligations. The performance security should reflect the value of the assessed risk and subsequent loss to LGED if the Contractor fail to fully perform under the respective contract and will be in the amount as stated in the PCC.

#### Procedure:

1) The Contractor shall furnish the LGED with Performance Security withinseven (7) working days (PW2); fourteen (14) days (PW3); twenty eight (28) days (PW5) from the date of acceptance of the NOA. The amount and the date and time within which the Performance Security shall be furnished is stated in NOA. The Performance Security should be provided in a currency and amount specified in TDS.

- After receiving the Performance Security, Project Manager will send a written request to the Issuing Bank furnished the Performance Security to verify the authenticity of the Performance Security.
- 3) During the execution of the contract, Project Manager can make any claim against the Bank issuing the Performance Security by notifying the Contractor. Such claims should be made by the Project Manager if the Contractor is in the breach of the Contract and Project Manager has duly notified him.
- 4) Performance Security shall be valid until a date twenty **(28) days** beyond the Intended Completion Date.
- 5) After the issuance of Certificate for Completion of Works Project Manager shall initiate the procedure to substitute the Performance Security furnished at the date of signing the contract by a new Security covering fifty (50) percent amount of Performance Security to cover Defect Liability Period.
- 6) If Project Manager finds no reason to call for the retention money, the security shall be discharged by the LGED and returned to the Contractor after the Defects Liability Period has passed and the Project Manager has certified in the form of Defects Corrections Certificates (FORM 7/4).

## 6.7. Retention money

Retention moneyis the payment that is withheld pending the completion of the whole Works as per the works contract.

#### Procedure:

- 1) Procuring Entity may retain from each progressive payment due to the Contractor at the percentage specified in the PCC until the completion of the whole Works under the Contract.
- 2) On completion of the whole of the Works, the first half of the total amount retained shall be returned to the Contractor and the remaining second half after the Defects Liability Period has passed and the PE/Project Manager has certified in the form of **Defects Corrections Certificate (FORM 7/4)**
- 3) On completion of the whole of the Works, the Contractor may substitute an irrevocable unconditional Bank Guarantee from any scheduled Bank of Bangladesh, in the format as specified, without any alteration, acceptable to the Procuring Entity for the second half of the retention money.

## 6.8. Liquidated Damages

Liquidated damages are an amount of money stipulated in the contract agreement to cover the damages arisen from Contractor's failure to complete the Works by Intended Completion Date or extended Intended Completion Date.

### Procedure:

 If the Contractor fails to complete the Works within the intended completion date or extended intended completion date, the Project Manager shall notify the Contractor on the payment pertaining to delay damages to LGED.

- 2) The Project Manager will review the circumstances and determine the amounts of Liquidated Damages due under the Contract, in accordance with the daily percentage and maximum amount deductible as stated in the PCC. In this he/she will be assisted by site staff who must assess any justifying circumstances involving late completion of the Work. The total amount of liquidated damages shall not exceed the amount defined in the contract.
- 3) When processing the payment, the Project Manager shall instruct the deduction from the contract price, as liquidated damages, a sum at a percent-rate per day of delay as specified in the PCC.
- 4) If the Intended Completion Date is extended after Liquidated Damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.
- 5) If the Contractor delays the completion of the Works by the number of days for which the maximum amount of Liquidated Damages can be paid as specified in PCC, the Project Manager may initiate the termination of contract based on fundamental breach of the contract from Contractor.
- 6) Payment of liquidated damages shall not relieve the Contractor from its obligations.

#### 6.9. Provisional Sums

"Provisional sums" means amounts of money specified by the Procuring Entity in the Bill of Quantities which shall be used, at its discretion, for payments to nominated Subcontractors and other purposes detailed in the Tender Documents.

#### Procedure:

- 1) Project Manager may instruct the use of Provisional Sums in whole or in part,
- 2) Provisional sums may be used, but is not limited, for purchase of plants, material or services by the Contractor from nominated subcontractor(s), for covering VAT, profit and overhead costs and for meeting other expenditures under the contract.
- 3) The percentage for adjustment of provisional sums is stipulated in the PCC

## 6.10. Dayworks

Dayworks means work carried out following the instructions of the Procuring Entity or the authorised Project Manager and is paid for on the basis of time spent by the Contractor's workers and equipment at the rates specified in the Schedules, in addition to payments for associated Materials and Plant.

A Daywork is commonly used in contracts where the likely incidence of unforeseen work cannot be covered by definitive descriptions and approximate quantities in the BOQ. A Daywork Schedule should therefore be included only if the probability of unforeseen work, outside the items included in the BOQ, is high. A provision for a Daywork is not applicable for PW2.

### Procedure:

1) For work of a minor or incidental nature, the Project Manager may instruct that a Variation shall be executed on a daywork basis.

- 2) If applicable, the dayworks rates in the Contractor's Tender shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.
- 3) If the works are done on a daywork basis, the Project Manager will prepare and issue a Daywork Order (FORM 6/7) for the work.
- 4) All works to be paid for as dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be certified and signed by the Project Manager within seven (7) days of the works being done.
- 5) The Contractor shall deliver each day to the Project Manager accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:
  - a) The names, occupations and time of Contractor's Personnel;
  - b) The identification, type and time of Contractor's Equipment and Temporary Works; and
  - c) The quantities and types of Plant and Materials used.
- 6) The staff assigned for the site supervision should pay attention to the work undertaken by Dayworks and take accurate records of manpower, equipment and materials utilized.
- 7) The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

# **CHAPTER 6**

# **Forms and Flow Charts**

| FORM 6/1        | Measurement notice form           |
|-----------------|-----------------------------------|
| FORM 6/2        | Quantity survey for covered items |
| FORM 6/3        | Variation order                   |
| FORM 6/4        | Extra WorkOrder                   |
| <b>FORM 6/5</b> | Notice for Variation Order        |
| FORM 6/6        | Notice for Extra WorkOrder        |
| FORM 6/7        | Day Work Order                    |
| FORM 6/8        | Variation check list              |
| FORM 6/9        | Payment Certificate               |
| FORM 6/10       | Contract Amendment                |

FLOW CHART 6/1 Payment

FLOW CHART 6/2 Performance security
FLOW CHART 6/3 Liquidated damages
FLOW CHART 6/4 Issue of variation order

Form 6/1

# **MEASUREMENT NOTICE FORM**

| TO:  Project name:  Contract number:  Measurement Notice No. | "insert the Contractor's det                   | ails"                     |
|--|--|---------------------------|
| Contract number:   |  |                           |
|  |  |                           |
| Measurement Notice No.                                       |  |                           |
|  |  |                           |
| In accordance with the works                                 | contract, you are advised that measurement for | or calculating quantities |
| will take place at:  |  |                           |
|  |  |                           |
| Location   |  | -                         |
| Date   |  | -                         |
| Time   |  | -                         |
| BOQ Item No.   |  | -                         |
| Notes:   |  |                           |
|  |  |                           |
|  |  |                           |
|  |  |                           |

| Issued by:                  | Received by:                                |          |
|-----------------------------|---|----------|
| LGED- Project Manager       | Contractor's Representative                 |          |
| Date:                       | Date:                                       |          |
|                             |   |          |
| QUA                         | NTITY SURVEY FOR COVERED ITEMS              | Form 6/2 |
| Project name:               |   |          |
| Location:                   |   |          |
| Name of Project Manager     |   |          |
| BOQ Item No.:               | QS Form No:                                 |          |
| Relevant drawing No.        |   |          |
| Description of Works:       |   |          |
|                             |   |          |
| Measurement. Sketches ,calc | ulations etc. to be provided here (if any): |          |
|                             |   |          |
|                             |   |          |
| Agreed quantity:            |   |          |

| LGED- Project Manager                           | Contractor's Representative                                       |
|---|---|
| Dete  | Data  |
| Date:   | Date:   |
|   |   |
|   |   |
|   | FORM 6/3  |
|   | VARIATION ORDER   |
| FROM:   | "insert the name of Project Manager"                              |
| TO:   | "insert the Contractor's details"                                 |
| Project name:                                   |   |
| Contract number:                                |   |
| Variation Order No.                             |   |
| The value of variation                          |   |
| The value of variation                          |   |
|   |   |
| Dear <i>Mr/Ms/Mr</i> s,                         |   |
| ·   | of the Conditions of Contract and in accordance with the Contract |
|   | No you are instructed to do the following:                        |
| The value of this variation i                   | is agreed at The valuation includes allowance for the             |
| following: (insert the other agr                |   |
| •All direct costs associated                    | ·   |
| <ul> <li>All indirect costs and prof</li> </ul> | it associated with the varied work;                               |

- •All impact costs associated with the varied work; and
- •All costs associated with any ripple effects resulting from the varied work.

No adjustment to the Time for Completion will be made by reasons of the changes and/or additions instructed herein. (*modify this paragraph if additional works causes the extension of Intended Completion Date*)

# WORKS CONTRACT MANAGEMENT MANUAL (2016)

| Theoleyay                             | Data  |
|---------------------------------------|-------|
| Thank you                             | Date: |
| "Insert signature of Project Manager" |       |

## **EXTRA WORK ORDER**

(Applicable only for PW3 and PW5)

| FROM: "insert the name of Project Manager"                      |  |  |  |
|---|--|--|--|
| TO:   | "insert the Contractor's details"  |  |  |
| Project name:   |  |  |  |
| Contract number:  |  |  |  |
| Extra Work Order No.  |  |  |  |
| The value of variation  |  |  |  |
|   |  |  |  |
| Dear <i>Mr/Ms/Mrs</i> ,   |  |  |  |
| Pursuant to sub-clause  | of the Conditions of Contract and in accordance with the Contrac   |  |  |
| Specification and with Drawing                                  | No you are instructed to do the following:   |  |  |
| The value of this extra work following: (insert the other agree | is agreed at The extra work includes allowance for the eed allowances as needed)   |  |  |
| <ul> <li>All indirect costs and prof</li> </ul>                 | d with the additional works;<br>it associated with the additional works;<br>ed with the extra works; and   |  |  |
| •   | any ripple effects resulting from the additional works.  |  |  |
| -   | r Completion will be made by reasons of the changes and/or additions<br>is paragraph if additional works causes the extension of Intended Completion |  |  |
|   |  |  |  |
| Thank you   | Date:  |  |  |
| "Insert signature of Project                                    | t Manager"   |  |  |

# **NOTICE FOR VARIATION ORDER**

| Proje            | ect name:   |                     |              |                |            |                       |
|------------------|---|---------------------|--------------|----------------|------------|-----------------------|
| Conti            | ract No.  |                     |              |                |            |                       |
| Name             | e of Project Manager  |                     |              |                |            |                       |
| NVO              | No.   |                     |              | Drawin         | g No.      |                       |
| notify<br>locati | cordance with the provisi<br>the responsible LGED<br>ons described below. | Project Manager o   | n the nee    | d for addition | nal work   | ks to be done in the  |
| Item             | Description   |                     | Unit         | Quantity       | Rate       | Amount                |
| no.              |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  |   |                     |              |                |            |                       |
|                  | to this written notification<br>nal works.                                | n, we hereby reques | st issuing o | f Variation C  | Order in c | order to complete the |
| Reques           | sted by:  |                     |              |                |            |                       |
| Cont             | ractor's representative   |                     |              | Date           | )          |                       |

# NOTICE FOR EXTRA WORK ORDER

(Applicable only for PW3 and PW5)

| Conti            | ract No.   |                                  |                      |                |              |                |
|------------------|--|----------------------------------|----------------------|----------------|--------------|----------------|
| Name             | e of Project Manager   |                                  |                      |                |              |                |
| EWO              | No.  |                                  |                      | Drawir         | ng No.       |                |
|                  |  |                                  |                      |                |              |                |
| notify<br>forese | cordance with the provision<br>the responsible LGED Presen in Scope of the original<br>refer the item, description and | oject Manager<br>al work, in the | on the need location | for additional | works to be  |                |
| Item             | Description  |                                  | Unit                 | Quantity       | Rate         | Amount         |
| no.              |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  |  |                                  |                      |                |              |                |
|                  | er to this written notification lete the additional works.   | on, we hereby                    | request issuir       | g of Extra Va  | riation Ordo | er in order to |
|                  |  |                                  |                      |                |              |                |
| 4- •             | by:  |                                  |                      |                |              |                |

## **DAYWORK ORDER**

|                            |   | (Applicable only for PV   | VS and I VV S)          |                        |
|----------------------------|---|---------------------------|-------------------------|------------------------|
|                            | FROM:   | "insert t                 | he name of Project M    | anager"                |
|                            | то:   | "inse                     | ert the Contractor's de | tails"                 |
|                            | Project name:   |                           |                         |                        |
|                            | Contract number:  |                           |                         |                        |
|                            | Daywork No.   |                           |                         |                        |
|                            | Date  |                           |                         |                        |
| 1.<br>2.<br>3.<br>4.<br>5. | accordance with provisions of of the basis of daywork:  |                           |                         |                        |
| Th                         | e works will be executed based                          |                           |                         | Heit Data              |
|                            | Description of (Manpower, equipm                        |                           | Unit                    | Unit Rate              |
|                            |   |                           |                         |                        |
|                            |   |                           |                         |                        |
|                            |   |                           |                         |                        |
|                            |   |                           |                         |                        |
|                            | ork done under this Dayworks (<br>e Bill of Quantities. | Order shall not be separa | tely measured for pa    | ment under any item in |
|                            | Project Manager   |                           |                         |                        |

## **VARIATION CHECK LIST**

| Project name:                              |  |
|--|--|
| Contract number:                           |  |
|  |  |
| Type of variation:                         |  |
| Location:                                  |  |
| Work described in Specification?           |  |
| Work shown on Drawings?                    |  |
| Variation recommended?                     |  |
| Applicable rates or prices in BOQ?         |  |
| Contractor's price proposal received?      |  |
| Will variation effect Time for Completion? |  |
| Value of variation agreed with Contractor? |  |
| Effect on time agreed with Contractor?     |  |
| Provisional rate necessary?                |  |
| Provisional rate determined?               |  |
| Rate fixed by Project Manager?             |  |
| LGED approval necessary?                   |  |
| LGED approval received?                    |  |
| Variation No.:                             |  |

# **PAYMENT CERTIFICATE**

|                          |                | 1 7 11  | VILIAL CRIVILION             | NI L      |                            |  |
|--------------------------|----------------|---------|------------------------------|-----------|----------------------------|--|
| Project name:            |                |         |                              |           |                            |  |
| Contract number:         |                |         |                              |           |                            |  |
| Payment Certification    | te No.         |         |                              |           |                            |  |
| Period                   |                |         |                              |           |                            |  |
| Date                     |                |         |                              |           |                            |  |
|                          |                |         |                              |           |                            |  |
| . In accordance with p   | rovisions in C | Clause  | of the C                     | Condition | s of Contract it is hereby |  |
| ertified that the sum of | :              |         | () is pa                     | yable to. |                            |  |
| insert the name of Con   |                |         |                              |           |                            |  |
|                          |                | 1       |                              | 1         |                            |  |
|                          | Amounts        | to date | Amounts previously certified | ed        | Amount this Certificate    |  |
| Permanent Works          |                |         |                              |           |                            |  |
| Variations               |                |         |                              |           |                            |  |
| Dayworks                 |                |         |                              |           |                            |  |
| Escalation               |                |         |                              |           |                            |  |
| Materials on Site        |                |         |                              |           |                            |  |
| Sub-total                |                |         |                              |           |                            |  |
| DEDUCTIONS               |                |         |                              |           |                            |  |
| Retention                |                |         |                              |           |                            |  |
| Repayment of advances    |                |         |                              |           |                            |  |
| Deduction from           |                |         |                              |           |                            |  |
| liquidated demages       |                |         |                              |           |                            |  |
| Taxes                    |                |         |                              |           |                            |  |
| Total deductions         |                |         |                              |           |                            |  |
| Net totals               |                |         |                              |           |                            |  |
|                          |                |         |                              |           |                            |  |
|                          |                |         | T AMOUNT PAYABL              |           |                            |  |
| Insert currency          |                | · ·     | (insert amount in words)     |           | (insert amount in figures) |  |
| Insert currency          |                | ,       | amount in words)             |           | rt amount in figures)      |  |
| Insert currency          |                | (insert | amount in words)             | (inse     | rt amount in figures)      |  |
|                          |                |         |                              |           |                            |  |
| Approved by:             |                |         |                              | Date:     |                            |  |
|                          | Project Mana   |         |                              |           |                            |  |

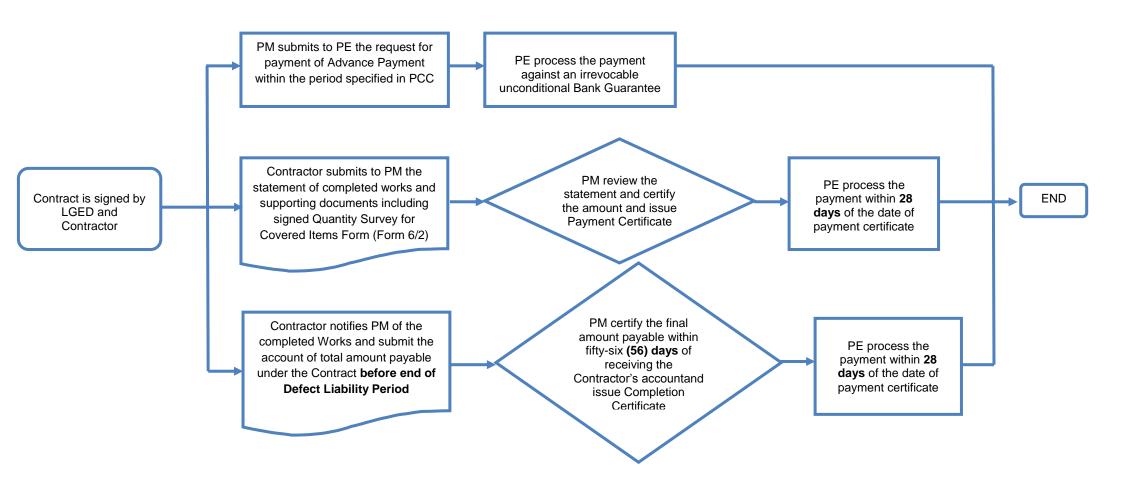


## Local Government Engineering Department (LGED)

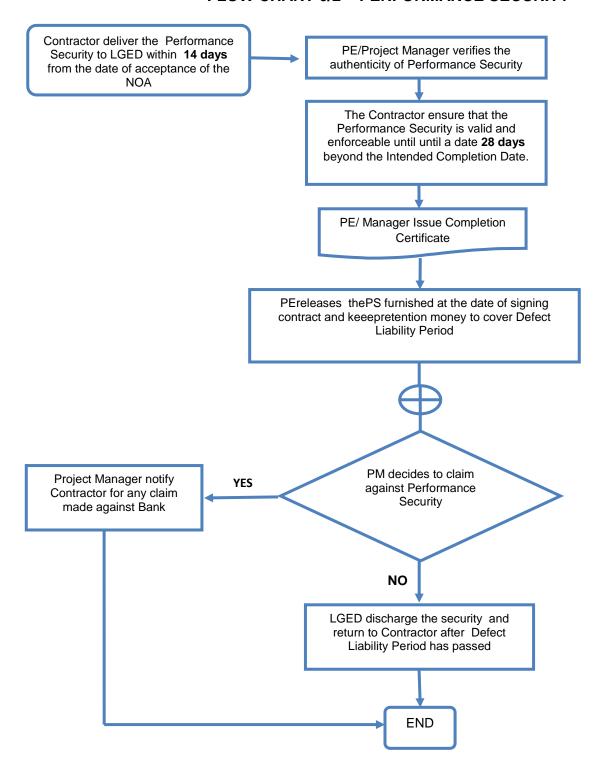
# **CONTRACT AMENDMENT**

| Contract No.  |                     |                            |                              |
|---|---------------------|----------------------------|------------------------------|
| Amendment No.   |                     |                            |                              |
| Approval Reference No.  |                     |                            |                              |
| Contract No. [insert number/year] by Contractor's legal title] for the contra amended as follows: |                     | _                          |                              |
| 1. GCC Clause [insert clause no],   | is hereby revise    | ed as                      |                              |
|   |                     |                            |                              |
| 2. GCC Clause [insert clause no],   | is hereby revise    | ed as                      |                              |
|   |                     |                            |                              |
| and so on .   |                     |                            |                              |
| The effective date of this Amendment later.   | nent is [insert eff | ective date] or up         | on execution whichever is    |
| ALL OTHER TERMS AND COL<br>REMAIN I   |                     | THE ORIGINA<br>CE AND EFFE |                              |
| THIS AMENDMENT, consisting of executed by the persons signing b this Amendment under the original | elow who warra      |                            |                              |
| IN WITNESS WHEREOF, the FAmendment.   | Procuring Entity    | / and the Cor              | ntractor have signed this    |
| [Contractor's Authorized Signatory]   | I                   | [Procuring En              | tity's Authorized Signatory] |
| Signature   | S                   | ignature                   |                              |
| <br>Title   |                     | itle                       | Date                         |

## **FLOW CHART 6/1 PAYMENTS**

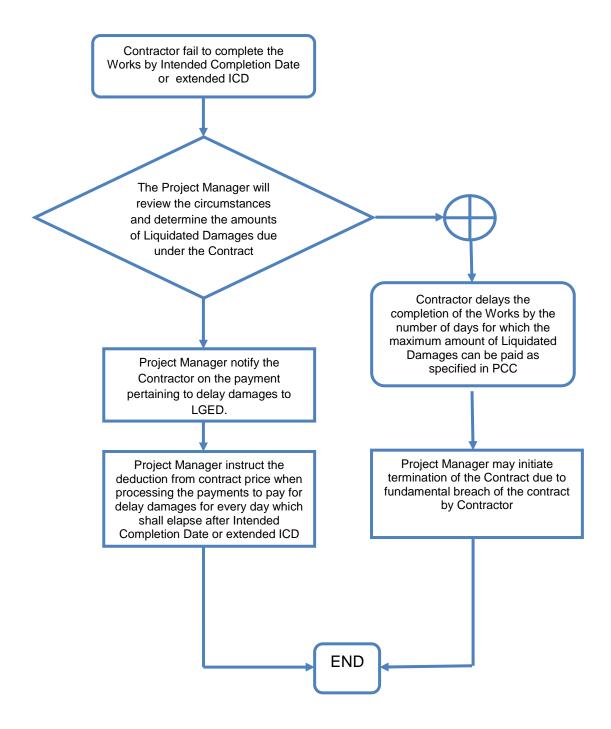


#### FLOW CHART 6/2 - PERFORMANCE SECURITY



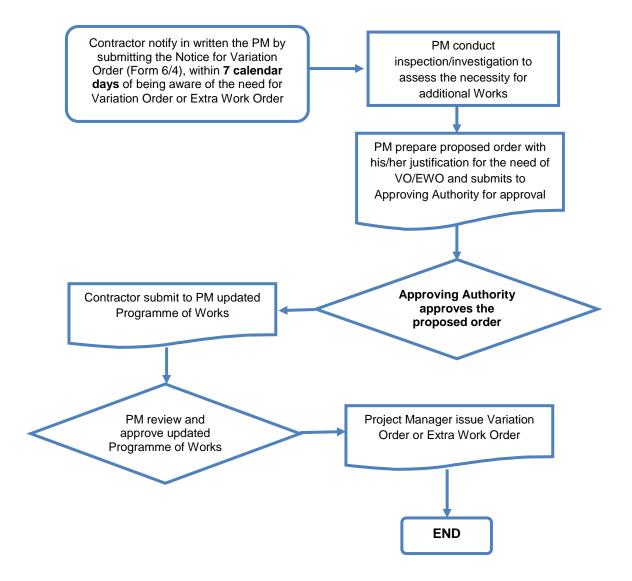
- 1. The Contractor shall furnish the LGED with Performance Security within fourteen (14) days (PW3); seven (7) working days (PW2); twenty eight (28) days (PW5) from the date of acceptance of the NOA
- 2. If any event or circumstances outside the control of LGED and Contractor (including but not limited to, Force Majeure) arises, Contractor is discharged from further performance

#### FLOW CHART 6/3 - LIQUIDATED DAMAGES



- 1. The total amount of liquidated damages shall not exceed the amount defined in the contract.
- 2. Payment of liquidated damages shall not relieve the Contractor from its obligations.

# FLOW CHART 6/4 – ISSUE OF VARIATION ORDER OR EXTRA WORK ORDER



- 1. Timeframe for processing Variation Order or Extra Work Order should not exceed **30 days** from its preparation to approval
- 2. Provisions for Extra Work Order is applicable only for PW3 and PW5
- 3 Proposed Order submitted by Project Manager to Approving Authority for approval should be accompanied with the Notice for VO or Notice for EWO submitted by the Contractor, the plan, his/her computation a to the quantities of the additional Worksindicating specific locations of the Works, the date of inspection and the detailed estimation of the associated costs
- 4. Contractor in no circumstances will carry out additional works if VO or EWO is not issued.

#### 7. COMPLETION AND CLOSURE OF THE CONTRACT

## 7.1. Completion Procedure

The completion procedures include the following main contractual events: Taking Over upon completion of the Works, Hand Over of the project to ultimate beneficiary, Defect Liability Period and Final Closure of contract.

#### A. Taking Over

When the Contractor considers that the Works are substantially completed he should notify the Project Manager that the works are ready for final inspection and apply for Completion Certificate. Project Manager and inspection team will carry out inspection and if assessed that the works are completed in accordance with a contract, Project Manager issue Completion Certificate (Form 7/1) stating the date on which the Works or Section were completed. For the purpose of taking over inspection the Form 7/2 should be used.

Project Manager should not issue the Completion Certificate for the purpose of taking over until the Contractor shall supply the various technical documentation including as-built drawings, operational manuals, spares and guarantees/warrantees as detailed within the Contract. To assist in identifying, monitoring and recording the submission and approval of the required submittals.

After the issuance of Certificate for Completion LGED releases the Performance Security and keep Retention Money for potential correction of defect during the Defect Liability Period.

If the Project Manager decides to reject to issuance of Completion Certificate, he/she should notify tge Contractor by giving the reasons for such decision and specify the work required to be done by the Contractor to enable the Completion Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub Clause.

The LGED should take over the Site and the Works within **seven (7)** days of the Project Manager's issuing a Certificate of Completion.

#### B. Hand over the Project to Ultimate Beneficiaries

As good practice, the hand over process should be planned in a way that LGED immediately pass on the works to the end user/ client. This will alleviate LGED from risk in having possession of the works for any period.

Project Manager should plan the hand over process well in advance with the client and user such that they are prepared to take over possibly on the same day as LGED take over the site and the Works.

#### C. Defect Liability Period

It is important that a procedure is established for managing defect notification and carrying out repair works during the contract defects Liability period. Clear lines of communication between the End User, LGED and the Contractor are required for any defect notification and a protocol for access to carry out investigations, remedial works and inspection of repaired works will need establishing.

1) The Project Manager shall give notice to the Contractor, with a copy to PE and others concerned, of any Defects before the end of the Defects Liability Period, which begins at Completion Date,

and is defined in the PCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

- 2) The Project Manager should use the Form 7/3 to notify Contractor of any defect and specify the timescale when the defect needs to be remediated. The Project Manager will also monitor and track the defects throughout the Defects Liability Period.
- 3) Every time a notice of Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.
- 4) When all obligations under the Contract have been completed, including those required to be performed during the Defects Liability Period; the Project Manager will issue a Defects Correction Certificate (FORM 7/4).
- 5) Between the date of issue of the certificate of Completion of the Works and the issue of the Defects Correction Certificate, the Project Manager will ensure all outstanding matters of the Contract have been completed. These include:
  - a) Finalization of all repairs, rectification of defects, omissions etc. as instructed by the Project Manager;
  - b) Clean up and removal of all site facilities erected by the Contractor; and
  - c) Restoration and rehabilitation of all areas as required under the Contract.
- 6) As good practice, a 12 month Defect Liability Period should be included.

#### D. Closure of the Contract

After the Defect Liability Period has passed, the Project Manager will make sure that the Contractor has corrected any defect during the DLP. If so, the LGED upon confirmation by the Project Manager, will return the percentage of money kept as security for correction of defects.

Contract will be considered closed only after the Defect Liability Period has passed and all defects are corrected by the Contractor (if any) and upon confirmation by Project Manager. Upon closure of the contract, Project Manager will make sure that all contract's documents are filed and maintained following the standard filing system.

# **CHAPTER 7**

## **Forms**

| FORM 7/1 Completion certifi | cate |
|-----------------------------|------|
|-----------------------------|------|

**FORM 7/2** Taking over inspection

FORM 7/3 Defect notification

FORM 7/4 Defect Correction Certificate

FORM 7/1

## **COMPLETION CERTIFICATE**

| Memo no | o:Date:                         |              |          |                  |                       |
|---------|---------------------------------|--------------|----------|------------------|-----------------------|
| 01      | Name of PE's Office             |              | :        |                  |                       |
| 02      | Name of Upazila Office (if any) |              |          |                  |                       |
| 03      | Name of Works                   |              | :        |                  |                       |
| 04      | Budget Head                     |              | :        |                  |                       |
| 05      | Contract No                     |              |          |                  |                       |
| 06      | Contractor's Legal Title        |              | :        |                  |                       |
| 07      | Contractor's Contact Detai      | ls           | :        |                  |                       |
| 08      | Contractor's Trade              |              | :        |                  |                       |
|         | License/Enlistment/Registr      | ation        |          |                  |                       |
|         | Details                         |              |          |                  |                       |
| 09      | Reference to NOA with Da        |              | :        |                  |                       |
| 10      | Type of Bill & Work Progre      |              |          |                  |                       |
| 11      | Original Contract Price as      |              | :        |                  |                       |
| 12      | Revised Contract Price(if a     | pplicable)   |          |                  |                       |
| 13      | Original Contract Period        |              |          |                  |                       |
|         | (a) Date of Commencemer         | nt           | :        |                  |                       |
|         | (b) Date of Completion          |              | :        |                  |                       |
| 14      | Actual Implementation Period    |              |          |                  |                       |
|         | (a) Date of Actual Commencement |              | :        |                  |                       |
|         | (b) Date of Actual Complet      |              | :        |                  |                       |
| 12      | Days/Months Contract Per        | iod          | :        |                  |                       |
|         | Extended                        |              |          |                  |                       |
| 13      | Amount of Bonus for Early       |              | :        |                  |                       |
| 14      | Amount of LD for Delayed        | •            | <u> </u> | 1 100            |                       |
| 15      | Description of Works            | Contract amo | ount     | Work done amount | Comments on work done |
| (i)     | Earth Works                     |              |          |                  |                       |
| (ii)    | Pavement & Surfacing Works      |              |          |                  |                       |
| (iii)   | Drainage structure              |              |          |                  |                       |
| (iv)    | Protective Works                |              |          |                  |                       |
| (v)     | Road Safety Works               |              |          |                  |                       |
| 16      | Total BDT                       |              |          |                  |                       |
| 17      | Days Contract Period Exte       | nded         | :        |                  | <u> </u>              |
| 18      | Reason for delay (if any)       |              | :        |                  |                       |
| 19      | Amount of LD for Delayed        | Completion   | :        |                  |                       |
|         |                                 | 2 3p.04011   |          |                  |                       |

Certified that the Works under the Contract has been executed and completed in all respects in strict compliance with the provisions of the Contract including all plans, designs, drawings, specifications and all modifications thereof as per direction and satisfaction of the Project Manager. All defects in workmanship and materials reported during construction have been duly corrected.

| Comments: |   |
|-----------|---|
|           | Name and Signature of the Issuing Authority |

FORM 7/2

## **TAKING OVER INSPECTION**

|                         |  | <del></del>   | VIEW IIIOI EOTIC  |                         |                                   |
|-------------------------|--|---|---|-------------------------|-----------------------------------|
| Project title:          |  |   |   |                         |                                   |
| Contract number:        |  |   |   |                         |                                   |
| Contractor:             |  |   |   |                         |                                   |
| Location inspected:     |  |   |   |                         |                                   |
| Inspection Date:        |  |   |   |                         |                                   |
| Inspection sheet Nr.:   |  |   |   |                         |                                   |
|                         |  |   |   |                         |                                   |
| It e Inspection Issue m | Subi<br>(e.g.<br>drawing<br>warran<br>pari | ntractor's<br>missions<br>. as build<br>gs, manuals,<br>ntees, spare<br>ts, other<br>cuments) | Comments, Remedial Action, Non Conformance, Remarks (incl. photo reference) | Date to be<br>completed | Sign Off<br>Complete and<br>Dated |
|                         |  |   |   |                         |                                   |
|                         |  |   |   |                         |                                   |
|                         | <u> </u>                                   |   | +   |                         |                                   |
| <u> </u>                | <del> </del>                               |   |   |                         |                                   |
|                         |  |   |   |                         |                                   |
|                         |  |   |   |                         |                                   |
|                         |  |   |   |                         |                                   |
|                         | <u> </u>                                   |   |   |                         |                                   |
|                         | <del> </del>                               |   | +   |                         |                                   |
|                         |  |   |   |                         |                                   |
|                         |  |   |   |                         |                                   |
| LGED Representative:    |  |   | ors Representative:   |                         | tion Attendees:                   |
|                         |  |   |   |                         |                                   |
| Signature:              |  | Signature   | <b>):</b>   | Signature:              |                                   |
| Date:                   |  | Date:   |   | Date:                   |                                   |

**FORM 7/3** 

# **DEFECT NOTIFICATION**

| Project title:  |  |       |                         |  |  |
|---|--|-------|-------------------------|--|--|
| Contract number:  |  |       | Date:                   |  |  |
| Contractor  |  |       | Defect notification Nr. |  |  |
| <b>Details of Defect:</b> (Note specifications, drawings, standards, procedures etc departed from, attach photos if applicable)   |  |       |                         |  |  |
| Describe Type of Defect:  |  |       |                         |  |  |
| 1. Material Fault:  |  |       |                         |  |  |
| 2. Civil:   |  |       |                         |  |  |
| 3. Mechanical:  |  |       |                         |  |  |
| 4. Electrical   |  |       |                         |  |  |
| 5. Safety & Environmental   |  |       |                         |  |  |
| 6. Other(specify)   |  |       |                         |  |  |
| Defect Classification:  |  |       |                         |  |  |
| ☐ Critical (creates direct risk to proper operation of the facility or safety – to be fixed ASAP) ☐ Operational (no direct risk to operation of facility or safety – fix date to be agreed) |  |       |                         |  |  |
| Remedial Works Required:  |  |       |                         |  |  |
| To be completed By Date: Input and Approval required by Design Consultants: Yes No  |  |       |                         |  |  |
| SIGNED BY:  |  | DATE: |                         |  |  |
| CLOSE OUT CONFIRMED DATE:   |  | BY:   |                         |  |  |

FORM 7/4

# **DEFECT CORRECTION CERTIFICATE**

| Contractor    Date:   Defect notification   Nr.(reference)  | Proj             | ect title:               |  |                  |              |                                    |
|---|------------------|--------------------------|--|------------------|--------------|------------------------------------|
| Procuring Entity's/PM comments  | Contract number: |                          |  |                  |              | Date:                              |
| S/N Type of defect corrected    Defect corrected   Additional comments  | Contractor       |                          |  |                  |              |                                    |
| Additional comment:  YES NO  Material Fault  Civil  Mechanical  Electrical  Other(specify)  Procuring Entity's/PM overall comments on the works corrected:  Certified that all defects have been duly corrected in line with Defect Notification subn |                  |                          |  |                  | Procurii     | ng Entity's/PM comments            |
| 1 Material Fault 2 Civil  | S/N              | Type of defect corrected |  | Defect corrected |              | Additional comments                |
| 2 Civil   |                  |                          |  | YES              | NO           |                                    |
| 3 Mechanical 4 Electrical 5 Safety & Environmental 6 Other(specify)  Procuring Entity's/PM overall comments on the works corrected:  Certified that all defects have been duly corrected in line with Defect Notification subn                        | 1                | Material Fault           |  |                  |              |                                    |
| 4 Electrical  | 2                | Civil                    |  |                  |              |                                    |
| 5 Safety & Environmental  | 3                | Mechanical               |  |                  |              |                                    |
| 6 Other(specify)  Procuring Entity's/PM overall comments on the works corrected:  Certified that all defects have been duly corrected in line with Defect Notification subn   | 4                | Electrical               |  |                  |              |                                    |
| Procuring Entity's/PM overall comments on the works corrected:  Certified that all defects have been duly corrected in line with Defect Notification subn   | 5                | Safety & Environmental   |  |                  |              |                                    |
| Certified that all defects have been duly corrected in line with Defect Notification subn   | 6                | Other(specify)           |  |                  |              |                                    |
|   |                  |                          |  |                  |              |                                    |
|   |                  |                          |  | y correcte       | ed in line w | rith Defect Notification submitted |

#### 8. CONTRACT TERMINATION

#### 8.1. Termination

In cases when Contractor breaches the contract for not fulfilling their contractual obligations, the ultimate recourse would be termination of the contract. It is strongly advisable for contracts to contain prior warning mechanisms that alert the Contractor to breaches and allow opportunity for negotiations to occur prior to the breach becoming a ground for termination. That said, termination can be the only viable option in certain situations.

Contracts can be terminated due to following reasons:

- I. If the LGED or the Contractor causes the **fundamental breach** of Contract (refer to GCC Sub Sub Clause 36.1 (PW2); Sub Clause 87.1(Pw3); Sub Clause 95.1(Pw5)which include, but not limited to the following:
  - (a) the Contractor stops work for twenty-eight (28) days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Project Manager;
  - (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within eighty four (84) days;
  - (c) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
  - (d) the Contractor does not maintain a Security, which is required;
  - (e) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of Liquidated Damages can be paid, as specified in GCC Sub Clause 71:
  - (f) the Contractor has subcontracted the whole of the Works or has assigned the Contract without the required agreement and without the approval of the Project Manager;
  - (g) the Contractor, in the judgment of the Procuring Entity has engaged in corrupt or fraudulent practices, as defined in GCC Sub Clause 38, in competing for or in executing the Contract.
  - (h) A payment certified by the Project Manager is not paid by the Procuring Entity to the Contractor within eighty-four (84) days of the date of the Project Manager's certificate.
- II. When LGED or Contractor become bankrupt or otherwise insolvent.

#### **Procedure:**

- 1) The Project Manager should ensure that all available measures have been explored to prevent from termination proceedings;
- 2) The Project Manager will carefully assess the nature of the breach and gather relevant documented evidence:

- 3) The LGED or Contractor may terminate the Contract by giving 28 days written notice to other party in case of termination for default (due to fundamental breach of contract) and termination for insolvency. In case of termination for convenience, LGED should terminate the Contract by giving 28 days written notice to Contractor and specifying that termination is the for LGED convenience.
- 4) In case of termination due to fundamental breach in the contract caused by Contractor, the Project Manager will form a Compensation Assessment Committee comprising of minimum 3 (three) members to assess the compensation for completion of remaining Works as per latest LGED rate schedule.
- 5) The compensation will be estimated costs of uncompleted contract quantity (as per latest LGED rate schedule) less the Quoted amount of the same by the terminated contractor representing in percentage with regards to uncompleted contract amount of the terminated contract but in no case it shall be less than minimum 10 (ten) percent of the uncompleted contract amount.
- 6) If Contractor fail to realize such compensation, Project Manager shall take necessary measures to recover the same from any dues remained (such as performance security, retention money, , pending bill of the other contract etc.). Furthermore if the total amount due to the LGED still exceeds any payment due to the Contractor, the difference be a debt payable to the LGED.
- 7) However, Project Manager following the procedure under 4 and 5, shall proceed to complete the remaining work by engaging new Contractor.
- 8) The Project Manager should keep informed his superior on the proceedings;
- 9) Constructive meetings should be organized with the Contractor aiming to resolve the matter by mutual agreement;
- 10) If necessary, the Project Manager will liaise with Procurement Unit/Law Unitto seek their professional legal advice. The legal opinion from Procurement Unit/Law Unitshould be obtained prior to termination of contract;
- 11) The Project Manager will immediately inform the relevant LGED Competent Authority on the termination (Procuring Entity, Procuremement Unit/Law Unit etc.);
- 12) If the Contract is terminated, the Project Manager should make sure that Contractor has stopped the work immediately, make the Site safe and secure, and leave the Site as soon as is reasonably possible.
- 13) If the Contract is terminated because of the fundamental breach by Contractor, all materials on the Site, Plan, Equipment, Temporary Works and Works shall be deemed to be the property of the LGED (applicable only for paid items).

## 8.2. Force Majeure

Force Majeure means an exceptional event or circumstance:

- a) which is beyond a Party's control
- b) which such Party could not reasonably have provided against before entering into the Contract;
- c) which, having arisen, such Party could not reasonably have avoided or overcome; and

d) which is not substantially attributable to the other Party.

Subject to Clause 83 GCC, Force Majeure means the following events or circumstances, so long as the conditions set out above are satisfied:

- war, (whether war be declared or not), invasion, act of foreign enemies within the Country;
- rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war within the Country;
- riot, commotion, disorder, strike or lockout by persons other than the Contractor's personnel;
- munitions of war, ionising radiation or contamination by radio-activity within the Country, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity; and
- natural catastrophes such as fires, floods, epidemics, quarantine restrictions, freight embargoes, cyclone, hurricane, typhoon, tsunami, storm surge, earthquake, hill slides, landslides, and volcanic activities

## 8.3. Termination as a Result of Force Majeure

#### Procedure:

- 1) The HOPE has the authority to decide the existence of a 'Force Majeure' that will be the basis of the issuance of an order for suspension of Works as stated under the GCC. Before making any firm decisions about whether to cease work, the Project Manager should provide HOPE with sufficient relevant information about the 'force majeure' event.
- 2) If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice, within fourteen **14 days** after the party became aware, to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented.
- 3) The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.
- 4) In cases when the contract is terminated for the reason of Force Majeure, the Project Manager shall determine the value of the work done and issue a Payment Certificate which shall include:
  - a) The amounts payable for any work carried out for which unit rates or prices are stated in the Contract;
  - b) The cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the LGED when paid for by the LGED, and the Contractor shall place the same at the LGED' disposal;
  - c) Other costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
  - d) The cost of removal of Temporary Works and Contractor's Equipment from the Site; and
  - e) The cost of repatriation of the Contractor's staff and labour employed wholly in connection with the Works at the date of termination.
- 5) PM/PE may assist Contractor to claim compensation from insurer.

Provisions and procedure pertaining to the payments upon termination are explained in Chapter 6 (Cost Control).

## **CHAPTER 8**

## **Forms and Flow Charts**

FORM 8/1 Contract termination notice

**FLOW CHART 8/1** Termination of contract

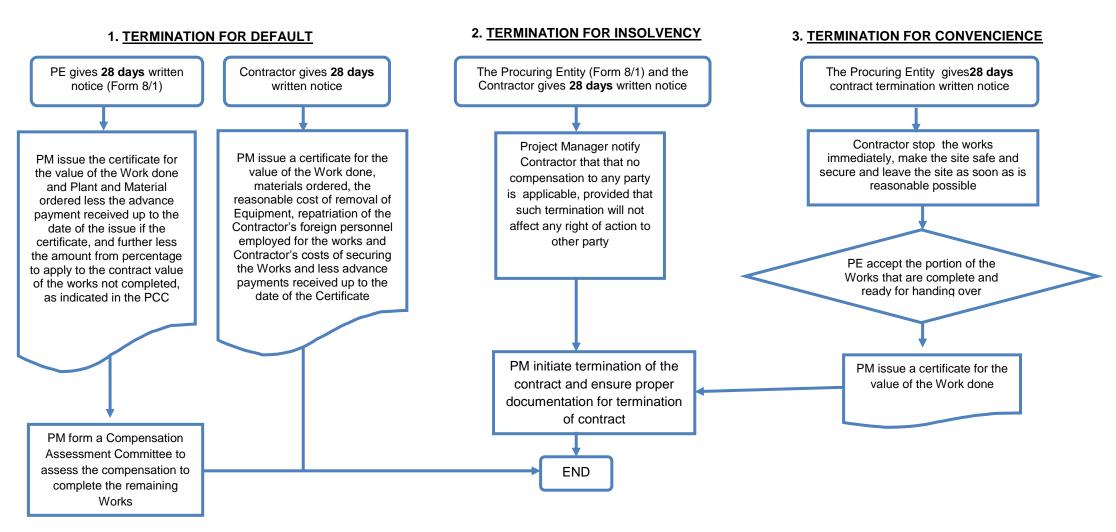
FLOW CHART 8/2 Termination of contract for reasons of force majeure

FORM 8/1

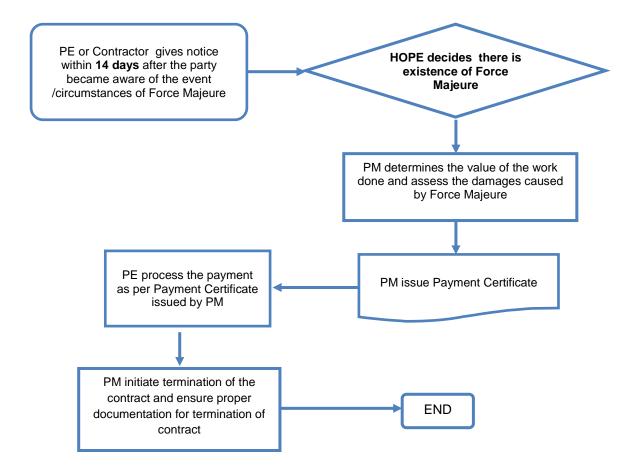
# **CONTRACT TERMINATION NOTICE**

| Date:  |
|--|
| From:  |
| To:  |
| Contract reference: (Insert the contract number and short description of scope of the contract)  |
| Dear Mr/Mrs/Ms (insert full name of Contractor's authorized person),   |
| I regret to inform you that we are compelled to terminate the contract signed on(insert the date) between Local Government Engineering Department (LGED) and(insert the name of Contractor) for(provide brief description of scope of the contract), effective(insert the date) in accordance with the General Contract Conditions, Sub-Clause(insert the Sub-clause). |
| The decision for the termination of the contract has been made due to  |
| (describe briefly the reason of termination).  For and on behalf of LGED:  |
| Signature:   |

#### FLOW CHART 8/1 – TERMINATION OF CONTRACT



#### FLOW CHART 8/2 – TERMINATION OF CONTRACT FOR REASONS OF FORCE MAJEURE



- 1. The Contractual parties consider to be prevented from performing its substantial contractual obligations due to Force Majeure, which include, but is not limited to, exceptional events such as:
  - a) War, hostilities, invasion, act of foreign enemies
  - b) Rebellion, terrorism, sabotage by person other than Contractor's personnel, revolution, insurrection, military or usurped power, or civil war
  - c) Riot, commotion, disorder, strike or lockout by persons other than the Contractor's personnel
  - d) Munitions of wars, explosive materials, ionising radiation or contamination by radio activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity
  - e) Natural catastrophes such as fires, floods, epidemics, quarantine restrictions, freight embargoes,cyclone, hurricane, typhoon, tsunami, storm surge, earthquake, hill slides, landslides and volcanic activities
- 2. When submitting the notice the parties should clearly specify the obligations, the performance of which is or will be prevented by Force Majeure

## 9. CLAIMS, SETTLEMENT OF DISPUTES AND ARBITRATION

#### 9.1. Claims

Claims are to be expected as a normal part of administering a construction contract. They are the mechanism within the contract which enables the Contractor to inform the PE/PM of changes that may impact on the final costs and time.

The Contractor may submit a claim under the following circumstances:

- a) Where PE/PM has instructed additional works and the Contractor considers that there will be an impact on the costs or time beyond what has been stated in the Contract;
- b) Where the Contractor disagrees with the determination of the PE/PM on the costs of additional work:
- c) Where the Contractor considers that delays in issuing drawings, documents or instructions have delayed the works and/or incurred additional costs;
- d) Where he has been unable to access to site to commence works due to circumstances beyond his control;
- e) Where he has been delayed or incurred additional costs for any circumstance beyond that could have been foreseen at the time of signing the contract;
- f) Where works were suspended for reasons beyond the Contractor's control;
- g) Any other circumstances arisen during the execution of the Works that are beyond the Contractor's control and may result in raising the costs or/and the timeframe for completion of the works.

The Contract includes the necessary procedures for submitting a claim, evaluating a claim, making a determination on a claim and issuing the PE's/Project Manager's determination, Variation Order or Extension of Intended Completion Date. Moreover the contract includes procedures for escalating a claim to a dispute, to adjudication and finally to an arbitrator.

The Contractor is entitled to claim under the Contract at any time during the Contract for additional costs arising from certain matters beyond its control and for costs associated with compensable delays.

A Claim only becomes a dispute when the parties cannot come to an agreement on the outcome of a claim.

#### Procedure:

- 1) The PE/PM will only accept the claims submitted from the leading Contractor. All claims raised by subcontractors should be addressed to the leading contractor.
- 2) If the Contractor considers being entitled to extension of the Completion Time and/or any additional payment, the Contractor shall notify PE/PM, not later than twenty-eight (28) days after the Contractor became aware, or should have become aware, of the event or circumstances given rise to the claim.
- 3) The contractor should submit a fully detailed claim within forty-two (42) days after becoming aware of the event or circumstances giving the rise to the claim. If the Contractor fails to comply with the notice timeframe, the PE/PM shall be discharged from all liability in relation with the

claim.

- 4) Upon receiving the claim, the PE/PM should file the claim in the claim register. In case the claim results in issue of a Variation Order or Extra Work Order, such claim should be re-filed under the Variation Register or Extra Work Order register.
- 5) On receipt of a claim from the Contractor, the PE/PM should make a sound investigation of the issues or situations carefully and in a timely manner to determine if they are within the scope of the contract:
- 6) If deemed necessary, before making any decision to reject or support the claim, the PE/PM should seek the professional advice from LGED Procurement Unit/Law Unit.
- 7) The PE/PM will keep his/her superior informed as to the progress of the examination and the possible outcome.
- 8) The PE/PM should meet the Contractor's assigned engineer at an early stage to discuss the claim in order to gather needed information and clarify any potential misunderstanding, in order to avoid the claim becoming a dispute later.
- 9) Where a claim is likely to involve considerable input which may interfere with the normal duties of site staff, specialist assistance might be required. Furthermore, If deemed necessary, PE/PM may seek the professional advice from LGED Procurement Unit/Law Unit.
- 10) The PE/PM is in charge of all correspondence with the Contractor which relates to receiving and approval or rejection of claims.
- 11) Following the review and meeting with the Contractor, the Project Manager will issue the justified determination. When assessing the claim, the Project Manager should consider:
  - a) The material circumstances of the event including the cause or causes;
  - b) The legal basis of the claim;
  - c) The nature and extent of any delay;
  - d) The nature and extent of any resultant additional Costs;
  - e) The corrective action already undertaken or to be undertaken;
  - f) The period, if any, by which in its opinion the Time for Completion should be extended; and
  - g) Adjustment, if any which in its opinion should be made to the Contract Price.
- 12) Staff assigned for site supervision of the works are responsible to assist the PE/PM with assessing the quantum claimed.
- 13) All relevant documentation to do with a particular claim will be placed on the claim file, with a divider being used for each issue.

## 9.2. Settlement of Disputes and Arbitration

A dispute is a disagreement between the LGED and Contractor arising out of or in connection with the formation, performance, interpretation, nullification, termination or invalidation of the Contract or the Works. Disputes between Procuring Entity and Contractor will be settled through: a) Amicable settlement, b) Adjudication or c) Arbitration

#### 9.2.1. Amicable settlement

The Procuring Entity and the Contractor shall use their best efforts to settle amicably all possible disputes arising out of or in connection with this Contract or its interpretation.

## 9.2.2. Adjudication

#### Procedure:

- 1) If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within **fourteen (14) days** of notification of the Project Manager's decision in writing.
- 2) The Adjudicator named in the **PCC**should be jointly appointed by the parties. In case of disagreement between the parties, the Appointing Authority designated in the **PCC** shall appoint the Adjudicator within **fourteen (14) days** of receipt of a request from either party.
- 3) The Adjudicator shall give its decision in writing to both parties within **twenty-eight (28) days** of a dispute being referred to it.
- 4) The Contractor shall make all payments (fees and reimbursable expenses) to the Adjudicator, and the Procuring Entity shall reimburse half of these fees through the regular progress payments.
- 5) Should the Adjudicator resign or die, or should the Procuring Entity and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator will be jointly appointed by the Procuring Entity and the Contractor. In case of disagreement between the Procuring Entity and the Contractor the Adjudicator shall be designated by the Appointing Authority within fourteen (14) days of receipt of a request from either party

## 9.2.3. Arbitration

#### Procedure:

- 1) If the parties are unable to reach a settlement amicably nor through adjudication within **twenty-eight (28) days** of the first written correspondence on the matter of disagreement, then either party may give notice to the other party of its intention to commence arbitration.
- 2) The arbitration shall be conducted in accordance with the Arbitration Act (**Act No 1 of 2001**) of Bangladesh as at present in force and in the place shown in the **PCC**.

## 10. CUSTOMIZATION OF PCC FOR LGED USE

This chapter outlines instructions and guidance for LGED staff on how to fill out and complete the Particular Conditions of Contracts that provide specific information to be integral part of the bidding documents. The standard PCC developed by CPTU for the works (PW2, PW3 and PW5) are harmonized to meet specific LGED needs.

The following Particular Conditions of Contract shall complement, amend, supplement the GCC and the Clause Numbers provided herein refer to the same Clause Numbers provided in the Conditions of Contract. Whenever there is a conflict, the provisions in the PCC shall prevail over those in the GCC. This Section shall therefore be read in conjunction with Bid Documents.

# **CHAPTER 10**

# **Attachments**

| PCC – PW2 | Particular Conditions of Contract- PW2 |
|-----------|--|
| PCC – PW3 | Particular Conditions of Contract- PW3 |
| PCC – PW5 | Particular Conditions of Contract- PW5 |

# PARTICULAR CONDITIONS OF CONTRACT - PW2

| Instructions for co | ompleting the Particular Conditions of Contract are provided in italics in parenthesis |
|---------------------|--|
| for the relevant G  | , ,  |
| GCC Clause          | Amendments of, and Supplements to, Clauses in the General Conditions of Contract       |
| GCC 1.1(d)          | The Contractor is:   |
|                     | [Name, address]  |
| GCC 1.1(t)          | The Procuring Entity is  |
|                     | [Name, address]  |
| GCC 1.1(u)          | The Project Manager is   |
|                     | [Name, address]  |
| GCC 1.1(v)          | The Site is located at [location] and is defined in drawings No:                       |
| ` ,                 | [insert numbers]   |
| GCC 1.1(aa)         | The Works consist of   |
| , ,                 | [state brief summary]  |
| GCC 3.1 (j)         | Other documents forming part of the Contract are;                                      |
|                     | [list other documents viz. Site Investigation Reports, relevant correspondences        |
|                     | prior to signing of the Contract agreement etc.]                                       |
| GCC 5.1             | Possession of the Site to the Contractor shall be given on the following date;         |
|                     |  |
|                     | [state date of possession of site]   |
| GCC 10.1            | The Start Date shall be [insert date]  |
|                     | [it is the last date when the Contractor shall commence execution of the Works         |
|                     | under the Contract]  |
| GCC 11.1            | The Intended Completion Date for the whole of the Works shall be [insert date]         |
|                     | [to be calculated from the start Date]   |
| GCC 12.1            | The Contractor shall submit a Programme for the Works within [insert days] days        |
|                     | of signing the Contract.   |
|                     | [usually ten (10) days or may be less]   |
| GCC 19.2            | The Defects Liability Period is [state months]   |
|                     | [usually Defect Liability Period is twelve (12) months to cover at least one           |
|                     | complete monsoon season].  |
| GCC 20.2            | The Contract price is [insert the amount]  |
|                     |  |
| GCC 27.1(f)         | The following additional events shall also be the Compensation Events:                 |
|                     | [list events or state none ]   |
| GCC 28.1            | The proportion of payments to be retained is [insert percent] percent.                 |
|                     | [state "none" if not applicable. If applicable then the proportion of Retention Money  |
|                     | shall be equal to the percentage-shortfall of ten (10) percent of Performance          |
|                     | Security determined at the time of signing the Contract.                               |
|                     | Again in case of unbalanced Tender or because of front loading, provision for          |
|                     | Retention Money shall not be applicable]   |

| GCC 29.1    | The amount of Liquidated Damages or in other words Delay Damages is [insert percentage] percent offinal Contract priceof the uncompleted Works or any part there of it's per day of delay.  [usually the percent-rate of liquidated damages is set at between 0.05 and 0.10 of ONE (1) percent of final Contract price of the uncompleted Works or any part there of it's per day of delay] |
|-------------|---|
|             | Guide to application of GCC Sub Clause 28.1 above   |
|             | [ Liquidated damages is equivalent to an amount to be determined in   |
|             | accordance with the following formula   |
|             | $T_{LD} = V_{UW} \times P \times n$   |
|             | Where;  |
|             | $T_{LD}$ = Total amount of Liquidated Damages<br>$V_{UW}$ = Value of Uncompleted Works (i.e. works not having been completed as of  |
|             | the expiry of the Intended Completion Date plus the works completed after   |
|             | the expiry of the Intended Completion Date). V <sub>UW</sub> shall be calculated by   |
|             | deducting the value of the completed works under the Contract from the  |
|             | total Contract price.   |
|             | P = Percent-rate at which the Liquidated Damages shall be imposed for   |
|             | every day of delay of the final Contract price of the uncompleted   |
|             | Works or any part thereof.  |
|             | n = No of days of delay for completion of works under the Contract]   |
| GCC 29.2    | The maximum amount of Liquidated Damages for the uncompleted Works or any   |
|             | part thereof is [insert percentage] percent of the final Contract price of the whole  |
|             | of the Works.   |
|             | [ usually the total amount of liquidated damages shall not exceed ten (10)  |
|             | percent of the final Contract price for the whole of the Works]   |
| GCC 37.1    | The percentage to apply to the contract value of the works not completed,   |
|             | representing the Procuring Entity's additional cost for completing the uncompleted  |
|             | Works, is [state percentage] percent.   |
|             | [unually between ten (10) to twenty (20) percent depending on the nature of the   |
|             | [usually between ten (10) to twenty (20) percent depending on the nature of the Works]  |
| GCC 39.2(b) | The arbitration shall be conducted in the place mentioned below;  |
| GCC 39.2(D) | [state name of place with location and district]  |
|             | [State Harrie of place with location and district]  |

# **PARTICULAR CONDITIONS OF CONTRACT - PW3**

| PARTICULAR CONDITIONS OF CONTRACT - PW3  |   |  |  |  |
|--|---|--|--|--|
| Instructions for completing the Particular Conditions of Contract are provided in italics in parenthesis for the relevant GCC Clauses. |   |  |  |  |
| GCC Clause   | Amendments of, and Supplements to, Clauses in the General Conditions of Contract                  |  |  |  |
| GCC 1.1(j)   | The Contractor is   |  |  |  |
| 00044(0)   | [Name, address, and name of authorized representative]  |  |  |  |
| GCC 1.1(ff)  | The Procuring Entity is   |  |  |  |
| GCC 1.1(gg)  | [Name, address, and name of authorized representative] The Project Manager is                     |  |  |  |
| GCC 1.1(gg)  | [Name, address, and name of authorized representative]  |  |  |  |
| GCC 1.1 (bb)   | The original Contract Price is [insert the amount in the NOA]                                     |  |  |  |
| GCC 1.1 (bb)   | The Intended Completion Date for the whole of the Works shall be [insert date]                    |  |  |  |
| 000 1.1(y)   | [to be calculated from the Commencement Date]   |  |  |  |
| GCC 1.1(kk)  | The Site is located at <i>[location]</i> and is defined in drawings No:                           |  |  |  |
| ooo maaa   | [insert numbers]  |  |  |  |
| GCC 1.1(nn)  | The Start Date shall be [insert date]   |  |  |  |
| , ,  |   |  |  |  |
|  | [it is the last date when the Contractor shall start execution of the Works under the             |  |  |  |
|  | Contract reasonably immediately after the Commencement Date; refer to GCC                         |  |  |  |
|  | Clause 40]  |  |  |  |
| GCC 1.1(rr)  | The Works consist of  |  |  |  |
|  | [state brief summary, including relationship to other Contracts under the Project]                |  |  |  |
| GCC 2.5  | The Sectional Completion Dates are:   |  |  |  |
|  |   |  |  |  |
|  | [state part of the works and the corresponding dates, if applicable]                              |  |  |  |
| GCC 3.1  | The Procuring Entity's address for the purpose of communications under this                       |  |  |  |
|  | contract is :   |  |  |  |
|  | Contact person: (the name of the Project Manager)   |  |  |  |
|  | Address:  |  |  |  |
|  | Tel:  |  |  |  |
|  | Fax: e-mail address:  |  |  |  |
|  | The Contractor's address for the purpose of communications under this contract is:                |  |  |  |
|  | Contact person:   |  |  |  |
|  | Address:  |  |  |  |
|  | Tel:  |  |  |  |
|  | Fax:  |  |  |  |
|  | e-mail address:   |  |  |  |
| GCC 6.1 (j)  | Other documents forming part of the Contract are;   |  |  |  |
|  | [list other documents viz. Schedule of other contractors, Schedule of Key                         |  |  |  |
|  | Personnel, Site Investigation Reports, relevant correspondences prior to signing of               |  |  |  |
| 00001  | the Contract agreement etc.]  |  |  |  |
| GCC 9.1  | The Contractor or the Subcontractor that is a national of, or registered in, the                  |  |  |  |
|  | following countries are not eligible:   |  |  |  |
| CCC 0.2  | [state countries, if applicable]  |  |  |  |
| GCC 9.2  | Materials, Equipments Plants and supplies shall not have their origin in the following countries: |  |  |  |
|  | [state countries, if applicable]  |  |  |  |
|  | [State Countries, II applicable]  |  |  |  |

| GCC 13.1 | Possession of the Site or part(s) of the Site, to the Contractor shall be given on the                         |  |  |
|----------|--|--|--|
|          | following date(s);   |  |  |
|          | [state date or dates of possession of site]  |  |  |
| GCC 19.1 | Following Key Personnel to carry out the functions stated in the Schedule shall be employed by the Contractor; |  |  |
| 22222    | [insert name(s)]   |  |  |
| GCC 20.3 | Nominated Subcontractor(s) named below;  |  |  |
|          | [insert name(s)]   |  |  |
|          | shall be entitled to execute the following specific components of the Works                                    |  |  |
| GCC 22.1 | [state none ,if not applicable]  |  |  |
| GCC 22.1 | The Contractual matters between the Procuring Entity and the Contractor shall be decided by                    |  |  |
|          | [state only if other than the Project Manager]   |  |  |
| GCC 36.1 | The insurance cover shall be:  |  |  |
| GCC 36.1 |  |  |  |
|          | (a) The minimum cover for the Works and of Plant and Materials is Tk [state amount].                           |  |  |
|          | [the Procuring Entity shall state the amount at the time of preparing <b>PCC</b> .                             |  |  |
|          | Amount could be 110% of the value of the works, plant and materials]   |  |  |
|          | (b) The maximum deductible for insurance of the Works and of Plant and   |  |  |
|          | Materials is [state amount].   |  |  |
|          | [the Contractor shall state this amount at the time of Contract signing. Amount                                |  |  |
|          | could be 5 to 10 %t of the sum insured]  |  |  |
|          | (c) The minimum cover for loss or damage to Equipment is Tk [state amount].                                    |  |  |
|          | [the Procuring Entity shall state the amount at the time of preparing PCC.                                     |  |  |
|          | Amount could be 110% of the replacement value of the equipment]  |  |  |
|          | (d) The maximum deductible for insurance of Equipment is [state amount].                                       |  |  |
|          | [the Contractor shall state this amount at the time of Contract signing. Amount                                |  |  |
|          | could be 5 to 10 %t of the sum insured].   |  |  |
|          | (e) The minimum cover for other property is [state amount].  |  |  |
|          | [the Procuring Entity shall state the amount at the time of preparing <b>PCC</b> .                             |  |  |
|          | Amount could be 10% of the Contract Price]   |  |  |
|          | · ·  |  |  |
|          | (f) The maximum deductible for insurance of other property is [state amount].                                  |  |  |
|          | [the Contractor shall state this amount at the time of Contract signing. Amount                                |  |  |
|          | could be 5 to 10% of sum insured]  |  |  |
|          |  |  |  |
|          | (g) The minimum cover for personal injury or death:  |  |  |
|          | (i) for the Contractor's employees is as per the law and common practice in                                    |  |  |
|          | Bangladesh.  |  |  |
|          | (ii) and for third parties is as per the law and common practice in Bangladesh.                                |  |  |
| GCC 39.1 | Commencement Date shall be [ insert date]  |  |  |
|          |  |  |  |
| GCC 40.1 | The Intended Completion Date of the Works shall be [insert date]   |  |  |
| GCC 41.1 | The Contractor shall submit a Programme for the Works within [insert days] days of                             |  |  |
|          | signing the Contract.  |  |  |
|          | [usually fifteen (15) days]  |  |  |
| GCC 41.2 | The period between Programme updates is [state interval]   |  |  |
|          | [usually bi-monthly or quarterly depending on the nature of the Works]   |  |  |
| GCC 41.3 | The amount to be withheld for late submission of an updated Programme is [state                                |  |  |
|          |  |  |  |

|             | amount].  |  |  |  |
|-------------|---|--|--|--|
| GCC 56.1    | The Defects Liability Period is [state months]  |  |  |  |
|             | [usually Defect Liability Period is twelve (12) months to cover at least one con                |  |  |  |
|             | monsoon season]   |  |  |  |
|             |   |  |  |  |
| GCC 65.3    | The particulars of the Bank Account nominated are as follows:                                   |  |  |  |
|             | Title of the Account : [insert title to whom the Contract awarded]                              |  |  |  |
|             | Name of the Bank : [insert name with code, if any]  |  |  |  |
|             | Name of the Branch: [insert branch name with code, if any]                                      |  |  |  |
|             | Account Number : [insert number]  |  |  |  |
|             | Address : [insert location with district]   |  |  |  |
|             | Tel :   |  |  |  |
|             | Fax :   |  |  |  |
|             | e-mail address :  |  |  |  |
|             | [information furnished by the Contractor shall be substantiated by the concerned                |  |  |  |
|             | Bank and authenticated by the Procuring Entity]   |  |  |  |
| GCC 66.1    | The rate of interest shall be the prevailing rate of interest for commercial borrowing          |  |  |  |
|             | established in the country.   |  |  |  |
|             | Or  |  |  |  |
|             | [state 'None']  |  |  |  |
|             | [delete not appropriate]  |  |  |  |
| GCC 67.1(m) | The following additional events shall also be the Compensation Events:                          |  |  |  |
|             | [list events or state none ]  |  |  |  |
| GCC 69.1    | The Contract is not subject to price adjustment.  |  |  |  |
| GCC 03.1    | OR  |  |  |  |
|             | The Contract is subject to price adjustment, the formulae and weightings or                     |  |  |  |
|             | coefficients of indexes for adjustment are:   |  |  |  |
|             | Coefficients of indexes for adjustment are.   |  |  |  |
|             | [Price Adjustment Formulae to be applicable if stated under ITT Sub Clause 27.9                 |  |  |  |
|             | and ITT Sub Clause 27.10 shall be specified here]   |  |  |  |
|             | Example:  |  |  |  |
|             | P= A + a (Lm/Lo)+ b (Blm/Blo)+ c (CEm/CEo)+ d (RSm/RSo)+ e (STm/STo)+ f                         |  |  |  |
|             | (BRm/BRo)+g (MIm/MIo) + h (FUm/FUo)+ etc  |  |  |  |
|             | where:  |  |  |  |
|             | L= Labor, BI=Bitumen, CE=Cement, RS=Reinforcing Steel, ST=Stone,                                |  |  |  |
|             | BR=Bricks, MI=Miscellaneous, FU= Fuel ]   |  |  |  |
|             | Weighting or Coefficient A equals between 0.10 and 0.15 and, B                                  |  |  |  |
|             | (a+b+c+d+e+f+g+h+etc) equals between 0.90 and 0.85.   |  |  |  |
|             |   |  |  |  |
|             | [insert_figure] non-adjustable component (coefficient A)  |  |  |  |
|             | [insert figure] adjustable component (coefficient B)  |  |  |  |
|             | [The sum of A+B shall equal ONE (1). It is usual to have value of A between 0.10                |  |  |  |
|             | and 0.15 and that of <b>B</b> between 0.90 and 0.85. Breakdown of <b>B</b> shall be provided in |  |  |  |
|             | Appendix to the Tender.]  |  |  |  |
|             | [delete not appropriate. Reference is drawn to ITT Sub Clause 27.9 and ITT sub                  |  |  |  |
|             | Clause 27.10]   |  |  |  |
| GCC 70.1    | The proportion of payments to be retained is [insert percent] percent.                          |  |  |  |
|             | [state "none' if not applicable. If applicable then the proportion of Retention Money           |  |  |  |
|             | shall be equal to the percentage-shortfall of ten (10) percent of Performance                   |  |  |  |
|             | Security determined at the time of signing the Contract.  |  |  |  |
|             | [If Performance Security has been increased in case of unbalanced Tender as result              |  |  |  |
|             | The community of the poor increased in ease of unbalanced reliables to testile                  |  |  |  |

|  | of front loading or because of Tender is significantly below the updated official estimated, provision for Retention Money shall not be applicable] |  |  |
|--|---|--|--|
| GCC 71.1   | The amount of Liquidated Damages is [insert between 0.05 and 0.10] of ONE (1)   |  |  |
| 00071.1  | percent of the contract value of the uncompleted works or any part thereof  |  |  |
|  | completed after expiry of the Intended Completion Date or extended Intended   |  |  |
|  | Completion Date, as applicable, per day of delay.   |  |  |
|  | Guide to application of GCC Sub Clause 71.1 above   |  |  |
|  | [ Liquidated damages is equivalent to an amount to be determined in   |  |  |
|  | accordance with the following formulae  |  |  |
|  | T = VxPx n  |  |  |
|  | Where;  |  |  |
|  | T = Total amount of Liquidated Damages  |  |  |
|  | ∨ = Contract Value of Uncompleted Works, completed after the expiry of the  |  |  |
|  | Intended Completion Date or extended Intended Completion Date, as applicable  |  |  |
|  | P = Percent-rate at which the Liquidated Damages shall be imposed per day   |  |  |
|  | of delay  |  |  |
|  | n = No of days delayed for completion of uncompleted works or part thereof  |  |  |
| after the expiry of the Intended Completion Date or extended |   |  |  |
|  | Completion Date, as applicable.   |  |  |
|  |   |  |  |
| GCC 71.1   | The maximum amount of Liquidated Damages for the uncompleted Works or any   |  |  |
|  | part thereof is [insert≤ ten (10)] percent of the final Contract Price of the whole of the  |  |  |
| GCC 72.1   | Works.  |  |  |
| GCC 72.1   | The Bonus for the whole of the Works is [insert between 0.05 and 0.10)] percent of the final Contract Price per day of early completion.            |  |  |
|  | The maximum amount of Bonus for the whole of the Works is [insert ≤ ten (10)]   |  |  |
|  | percent of the final Contract Price   |  |  |
|  | [if early completion would provide benefits to the Procuring Entity, this clause should   |  |  |
|  | remain, otherwise state "Not Applicable". The bonus is usually numerically equal to   |  |  |
|  | the Liquidated Damages]   |  |  |
| GCC 73.1   | The Advance Payment shall be Tk [insert amount] and shall be paid to the  |  |  |
|  | Contractor not later than [insert date].  |  |  |
|  |   |  |  |
|  | [An advance payment, if admissible, shall be made for mobilisation, considering the   |  |  |
|  | nature of the works. The recommended maximum advance payment is ten (10)  |  |  |
|  | percent of the original Contract Price against an irrevocable unconditional Bank  |  |  |
| 000 70 4   | Guarantee (Form PW3-10) ]   |  |  |
| GCC 73.4   | Advance Payment shall be amortized at the rate of [insert percentage] from the  |  |  |
|  | progressive payments of invoices.  [The amortization of the Advance Payment shall commence when the progress  |  |  |
|  | payments have reached twenty (20) percent of the Contract Price and, be completed   |  |  |
|  | when the progress payments have reached eighty (80) percent of the Contract   |  |  |
|  | Price   |  |  |
| GCC 75.2   | The percentage for adjustment of Provisional Sums is  |  |  |
|  | % (percent)   |  |  |
|  | [state none, if not applicable. Usually covers the profit, overhead and VAT costs]  |  |  |
| GCC 82.1   | The date by which "as-built" drawings are required is [insert date]   |  |  |
|  | The date by which operating and maintenance manuals are required is [insert date]   |  |  |
| GCC 82.2   | The amount to be withheld for failing to produce "as-built" drawings and/or   |  |  |
|  | to produce and mining under   |  |  |

|              | an anation and an electronic and an electronic distriction of the state of the stat |  |  |  |
|--------------|--|--|--|--|
|              | operating and maintenance manuals by the date required is Tk [insert amount]   |  |  |  |
|              | [usually a very nominal amount]  |  |  |  |
| GCC 88.1     | The percentage to apply to the contract value of the works not complet   |  |  |  |
|              | representing the Procuring Entity's additional cost for completing the uncompleted   |  |  |  |
|              | Works, is [insert between 10 and 20] percent.  |  |  |  |
|              | [ usually depending on the nature of the Works]  |  |  |  |
| GCC 92.2 (b) | The Adjudicator jointly appointed by the parties is:   |  |  |  |
|              | Name:  |  |  |  |
|              | Address:   |  |  |  |
|              | Tel No:  |  |  |  |
|              | Fax No:  |  |  |  |
|              | e-mail address:  |  |  |  |
| GCC 92.2(b)  | In case of disagreement between the parties, the Appointing Authority for the  |  |  |  |
|              | Adjudicator is the President of the Institution of Engineers, Bangladesh (IEB).  |  |  |  |
| GCC 92.3 (b) | The arbitration shall be conducted in the place mentioned below;   |  |  |  |
|              | [state name of place with location and district]   |  |  |  |

#### PARTICULAR CONDITIONS OF CONTRACT – PW5

Instructions for completing the Particular Conditions of Contract are provided in italics in parenthesis for the relevant GCC Clauses. Amendments of, and Supplements to, Clauses in the General Conditions of **GCC Clause** Contract GCC 1.1(k) The Contractor is: [Name, address, and name of authorized representative] GCC 1.1(hh) The Employer is [Name, address, and name of authorized representative] GCC 1.1(ii) The Engineer is [Name, address, and name of authorized representative] [usually a civil works contract designating the project Consultant as "Engineer" requires the written approval of the "Employer"] GCC 1.1 (dd) The original Contract price is [insert the amount in the NOA] The Intended Completion Date for the whole of the Works shall be *linsert date!* GCC 1.1(aa) [to be calculated from the Commencement Date] GCC 1.1(II) The Site is located at [location] and is defined in drawings No: [insert numbers] GCC 1.1(qq) The Start Date shall be [insert date] fit is the last date when the Contractor shall commence execution of the Works under the Contract reasonably immediately after the Commencement Date; refer to GCC Clause 401 GCC 1.1(uu) The Works consist of [state brief summary, including relationship to other Contracts under the Project] **GCC 2.5** The Sectional Completion Dates are: [state part of the works and the corresponding dates, if applicable] GCC 3.1 The LGED address for the purpose of communications under this contract is: Contact person: Address: Tel: Fax: e-mail address: The Contractor's address for the purpose of communications under this contract is : Contact person: Address: Tel: Fax: e-mail address: GCC 6.1 (j) Other documents forming part of the Contract are: [list other documents viz. Schedule of other contractors, Schedule of Key Personnel, Site investigation Reports, relevant correspondences prior to signing of the Contract agreement etc.] A Contractor or a Subcontractor that is a national of, or registered in, the following GCC 9.1 countries are not eligible: [state countries, if applicable] GCC 9.2 Materials, Equipments Plants and supplies shall not have their origin in the following countries: [state countries, if applicable] GCC 13.1 Possession of the Site or part(s) of the Site, to the Contractor shall be given on the following date(s): [state date or dates of possession of site]

| GCC 19.1 | Following Key Personnel to carry out the functions stated in the Schedule shall be employed by the Contractor;                             |  |  |
|----------|--|--|--|
| GCC 19.1 | [insert name(s)]   |  |  |
| GCC 21.1 | Nominated Subcontractor(s) named below;  |  |  |
|          |  |  |  |
|          | [insert name(s)]   |  |  |
|          | shall be entitled to execute the following specific components of the Works  |  |  |
| 222.22.4 | [state none ,if not applicable]  |  |  |
| GCC 23.1 | The Contractual matters between the LGED and the Contractor shall be decided by  |  |  |
| GCC 37.1 | [state only if other than the Engineer] The minimum insurance cover shall be:  |  |  |
| 00007.1  | (a) The maximum deductible for insurance of the Works and of Plant and Materials is  |  |  |
|          | USD/GBP/EUR/JPY/BDT - [insert amount] and/or BangladeshTaka [insert amount]  |  |  |
|          | delete not appropriate  [the Contractor shall provide this amount at the time of Contract signing].  |  |  |
|          | (b) The minimum cover for insurance of the Works and of Plant and Materials in   |  |  |
|          | respect of the Contractor's faulty design is USD/GBP/EUR/JPY/BDT - [insert amount] delete not appropriate                                  |  |  |
|          | BangladeshTaka [insert amount].  |  |  |
|          | [the amount could be 110% of the value of the works, plant and materials that  |  |  |
|          | may be lost in a worst case scenario].   |  |  |
|          | (c) The maximum deductible for insurance of Equipment is USD/GBP/EUR/JPY/BDT -   |  |  |
|          | delete not appropriate   |  |  |
|          | [insert amount]   BangladeshTaka [insert amount].  |  |  |
|          | [the Contractor shall provide this amount at the time of Contract signing]   |  |  |
|          | (d) The minimum cover for loss or damage to Equipment is USD/GBP/EUR/JPY/BDT   |  |  |
|          | delete not appropriate   |  |  |
|          | [insert amount] $\frac{BangladesliTaka}{deleteif\ not appropriate-}$ [insert amount].  |  |  |
|          | [the amount could be 110% of the replacement value of the equipment]   |  |  |
|          | (e) The maximum deductible for insurance of other property is USD/GBP/EUR/JPY/BDT  |  |  |
|          | delete not appropriate   |  |  |
|          | [insert amount] $\frac{BangladesliTaka}{deleteif\ not appropriate-}$ [insert amount].  |  |  |
|          | [the Contractor shall state this amount at the time of Contract signing]   |  |  |
|          | (f) The minimum cover for insurance of other property is USD/GBP/EUR/JPY/BDT [insert delete not appropriate]                               |  |  |
|          | amount] BangladeshTaka   [insert amount].  |  |  |
|          | [it is the responsibility of the Contractor to obtain adequate insurance cover for   |  |  |
|          | such risks – recommended value 10% of contract price]  |  |  |
|          | (g) The minimum cover for personal injury or death insurance:  (i) for the Contractor's employees is as per the law and common practice in |  |  |
|          | (i) for the Contractor's employees is as per the law and common practice in Bangladesh.  |  |  |
|          | (ii) and for third parties is as per the law and common practice in Bangladesh.  |  |  |
| GCC 40.1 | Commencement Date of Works shall be as follows;  |  |  |
|          | [insert different commencement dates for different parts of the Works, if deemed   |  |  |
|          | appropriate]   |  |  |

| GCC 42.2 GCC 42.3 GCC 60.2 | The Contractor shall submit a Programme for the Works within [insert days] days of signing the Contract.  [usually fifteen (15) days]  The period between Programme updates is [state interval]  [usually bi-monthly or quarterly depending on the nature of the Works]  The amount to be withheld for late submission of an updated Programme is   USD/GBP/EUR/JPY/BDT [insert amount]   [insert amount] [insert amount]   The Defects Liability Period is [state months]  [usually Defect Liability Period is twelve (12) months to cover at least one complete |
|----------------------------|---|
| GCC 42.3                   | [usually fifteen (15) days]  The period between Programme updates is [state interval] [usually bi-monthly or quarterly depending on the nature of the Works]  The amount to be withheld for late submission of an updated Programme is  USD/GBP/EUR/JPY/BDT [insert amount]   BangladesliTaka   delete not appropriate   [insert amount]    The Defects Liability Period is [state months]  |
| GCC 42.3                   | The period between Programme updates is [state interval] [usually bi-monthly or quarterly depending on the nature of the Works]  The amount to be withheld for late submission of an updated Programme is  USD/GBP/EUR/JPY/BDT [insert amount ]   BangladeshTaka delete not appropriate [insert amount]  The Defects Liability Period is [state months]   |
| GCC 42.3                   | [usually bi-monthly or quarterly depending on the nature of the Works]  The amount to be withheld for late submission of an updated Programme is  USD/GBP/EUR/JPY/BDT [insert amount]   delete not appropriate [insert amount]  The Defects Liability Period is [state months]  |
|                            | The amount to be withheld for late submission of an updated Programme is   USD/GBP/EUR/JPY/BDT [insert amount]   delete not appropriate [insert amount]   The Defects Liability Period is [state months]  |
|                            | USD/GBP/EUR/JPY/BDT [insert amount ]   delete not appropriate [insert amount]  The Defects Liability Period is [state months]   |
| GCC 60.2                   | The Defects Liability Period is [state months]  |
| GCC 60.2                   |   |
|                            |   |
|                            | monegon coccon!   |
| 000 00 4                   | monsoon season]   |
| GCC 62.1                   | The Contract Price is USD/GBP/EUR/JPY [insert amount] and/or BDT delete not appropriate -   |
|                            | [insertamount]  |
|                            | [amount shall be the same as stated in the NOA; Form PW5-7]   |
| GCC 69.3                   | The particulars of the Bank Account nominated are as follows:   |
|                            | Title of the Account : [insert title to whom the Contract awarded]  |
|                            | Name of the Bank : [insert name with code, if any]  |
|                            | Name of the Branch : [insert branch name with code ,if any]   |
|                            | Account Number : [insert number]  |
|                            | Address : [insert location with district]   |
|                            | Tel :   |
|                            | Fax :   |
|                            | e-mail address :  |
|                            | [information furnished by the Contractor shall be substantiated by the concerned Bank   |
|                            | and authenticated by the Employer]  |
| GCC 70.2                   | The Contractor shall be entitled to receive financing charges for delayed payment   |
| 000 70.E                   | during the period of delay at the annual rate of interest of [insert rate];   |
|                            | [usually London Inter Bank Offered Rate (LIBOR) plus 2 percent]   |
| GCC 72.1(m)                | The following additional events shall also be the Compensation Events:  |
| GCC 72.1(III)              | [list events or state none]   |
| GCC 74.1                   | The Contract is not subject to price adjustment.  |
|                            | OR  |
|                            | The Contract is subject to price adjustment applying the following formulae and the   |
|                            | weightings or coefficients:   |
|                            | [Price Adjustment Formulae to be applicable if stated under ITT Sub Clause 27.10 shall  |
|                            | be specified here]  |
|                            | Example:  |
|                            | P= A + a (Lm/Lo)+ b (Blm/Blo)+ c (CEm/CEo)+ d (RSm/RSo)+ e (STm/STo)+ f   |
|                            | (BRm/BRo)+g (MIm/MIo) + h (FUm/FUo)+ etc  |
|                            | where;  |
|                            | L= Labor, BI=Bitumen, CE=Cement, RS=Reinforcing Steel, ST=Stone, BR=Bricks,   |
|                            | MI=Miscellaneous, FU= Fuel ]  |
|                            | Weighting or Coefficient A equals between 0.10 and 0.15 and, B (a+b+c+d+e+f+g+h+etc) equals between 0.90 and 0.85.  |
|                            | [insert_figure] non-adjustable component (coefficient A)  |
|                            | [insert figure] adjustable component (coefficient B)  |
|                            | [The sum of A+B shall equal ONE (1). It is usual to have value of A between 0.10 and  |
|                            | 0.15 and that of <b>B</b> between 0.90 and 0.85. Breakdown of <b>B</b> shall be provided in   |
| 1                          | Appendix to the Tender.] [delete as appropriate]  |
|                            | [insert figure] adjustable component ( <b>coefficient B</b> ) [The sum of <b>A+B</b> shall equal <b>ONE</b> (1). It is usual to have value of <b>A</b> between 0.10 and 0.15 and that of <b>B</b> between 0.90 and 0.85. Breakdown of <b>B</b> shall be provided in   |

| GCC 75.1  | The proportion of payments to be retained is [insert percent] percent. [state "none' if not applicable. If applicable then the proportion of Retention Money shall |
|-----------|--|
|           | be equal to the percentage-shortfall of ten (10) percent of Performance Security   |
|           | determined at the time of signing the Contract. Again in case of unbalanced Tender or  |
|           | because of front loading, provision for Retention Money shall not be applicable]   |
| GCC 76.1  | The amount of Liquidated Damages or in other words Delay Damages for the   |
|           | uncompleted Works or any part thereof is [insert percentage] percent of its Contract   |
|           | price per day of delay.  |
|           | [usually the percent-rate of liquidated damages is set at between 0.05 and 0.10 of   |
|           | ONE (1) percent of its Contract price per day of delay]  |
|           | Guide to application of GCC Sub Clause 76.1 above  |
|           | [ Liquidated damages is equivalent to an amount to be determined in accordance   |
|           | with the following formula   |
|           | $T_{LD} = V_{UW} \times P \times n$  |
|           | Where;   |
|           | T <sub>LD</sub> = Total amount of Liquidated Damages   |
|           | $\forall_{UW}$ = Value of Uncompleted Works (i.e. works not having been completed as of  |
|           | the expiry of the Intended Completion Date plus the works completed after  |
|           | the expiry of the Intended Completion Date). V <sub>UW</sub> shall be calculated by deducting the value of the completed works under the Contract from the         |
|           | total Contract price   |
|           | P = Percent-rate at which the Liquidated Damages shall be imposed for every  |
|           | day of delay   |
|           | n = No of days of delay for completion of works under the Contract]  |
| GCC 76.2  | The maximum amount of Liquidated Damages for the uncompleted Works or any part   |
| 000 / 0.2 | thereof is [insert percentage] percent of the final Contract price of the whole of the   |
|           | Works.   |
|           | [ usually the total amount of liquidated damages shall not exceed ten (10) percent   |
|           | of the final Contract price for the whole of the Works]  |
| GCC 77.1  | The Bonus for the whole of the Works is [insert percentage] percent of the final Contract  |
|           | price per day.   |
|           | The maximum amount of Bonus for the whole of the Works is [insert percentage]  |
|           | percent of the final Contract price.   |
|           | [if early completion would provide benefits to the Employer, this clause should remain,  |
|           | otherwise state "Not Applicable". The bonus is usually numerically equal to the  |
|           | Liquidated Damages]  |
| GCC 78.1  | The Advance Payment shall be <u>USD/GBP/EUR/JPY/BDT</u> [insert amount] and/or   |
|           | delete not appropriate   |
|           | BangladeshTaka [insert amount] and, shall be paid to the Contractor not later than   |
|           | аенену потарргорпав-   |
|           | [insert date].   |
|           | [for 100 percent GoB funded procurement, advance payments are not recommended  |
|           | unless otherwise specifically decided by the Government. An advance payment, if  |
|           | admissible, shall be made for mobilisation, considering the nature of the works. The   |
|           | recommended maximum advance payment is ten (10) percent of the original Contract   |
|           | price against an unconditional Bank Guarantee (Form PW5-10). On the contrary,  |
| 000 =0 :  | advance payments may be applicable for procurements under aided projects]  |
| GCC 78.4  | Repayment of Advance Payment shall be at the rate of [insert percentage] from the  |
|           | progressive payments of invoices.  |
|           | [Advance Payment is to be repaid in pro rata instalments starting with the month when  |
|           | twenty (20) percent of the value of the Contract has been certified and shall be   |

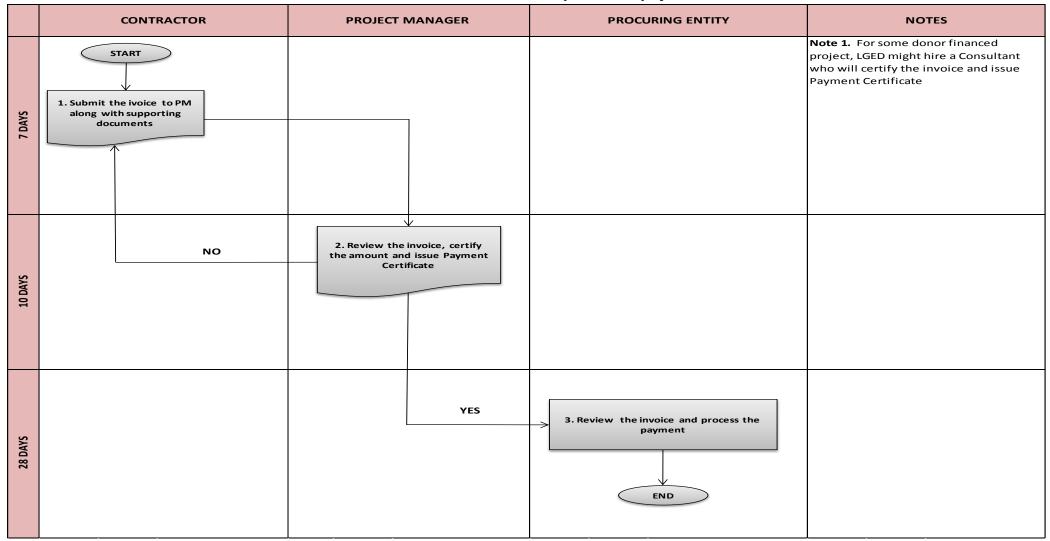
|           | completely reimbursed to the Employer by the time the certified completion is eighty  |  |
|-----------|---|--|
|           | (80) percent of the Contract price]   |  |
| GCC 80.2  | The percentage for adjustment of Provisional Sums is  |  |
|           | % (percent)   |  |
|           | [state none, if not applicable. Usually covers the VAT, profit and overhead costs]  |  |
| GCC 87.1  | The date by which "as-built" drawings are required is [insert date]   |  |
|           | The date by which operating and maintenance manuals are required is [insert date]   |  |
| GCC 87.2  | The amount to be withheld for failing to produce "as-built" drawings and/or operating   |  |
|           | and maintenance manuals by the date required is USD/GBP/EUR/JPY/BDT [insert amount]   |  |
|           | delete not appropriate  |  |
|           | and/or $\frac{BangladeshTaka}{deleteif\ not appropriae-}$ [insert amount].  |  |
|           | [usually a very nominal amount]   |  |
| GCC 96.1  |   |  |
|           | the Employer's additional cost for completing the uncompleted Works, is [state  |  |
|           | percentage] percent.  |  |
|           | [ usually between ten (10) to twenty (20) percent depending on the nature of the  |  |
|           | Works]  |  |
| GCC 100.3 | The rules of procedure for arbitration proceedings shall be as follows:   |  |
|           | (i) In the case of a dispute between the Employer and the foreign Contractor, [insert   |  |
|           | any of the following options]   |  |
|           | Any dispute, controversy or claim arising out of or relating to this Contract, or breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules of 1976 as at present in force.  OR |  |
|           | All disputes arising in connection with the present Contract shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators in accordance with the said rules.  |  |
|           | (ii) In the case of a dispute between the LGED and the national Contractor, in  |  |
|           | particular, thearbitration shall be conducted in accordance with the Arbitration Act  |  |
|           | (Act No 1 of 2001) of Bangladesh as at present in force and in the place [state   |  |
|           | name of place with location and district].  |  |
|           |   |  |

## 11. OVERVIEW OF FORMS AND FLOW CHARTS

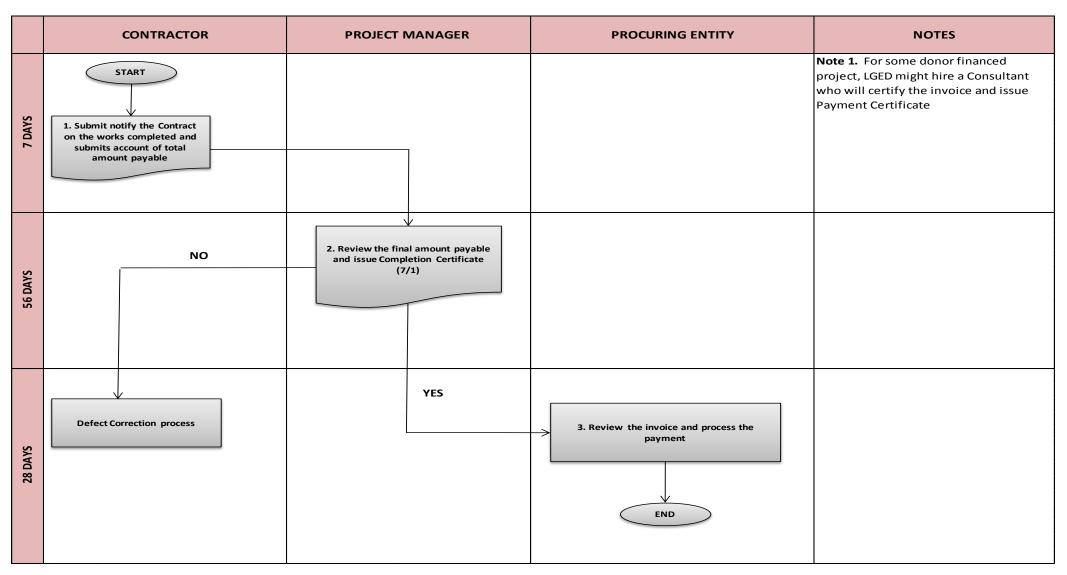
| CHAPTER TITLE        | FORMS/FLOW CHARTS  | PG       |
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#### 12. ANNEXES

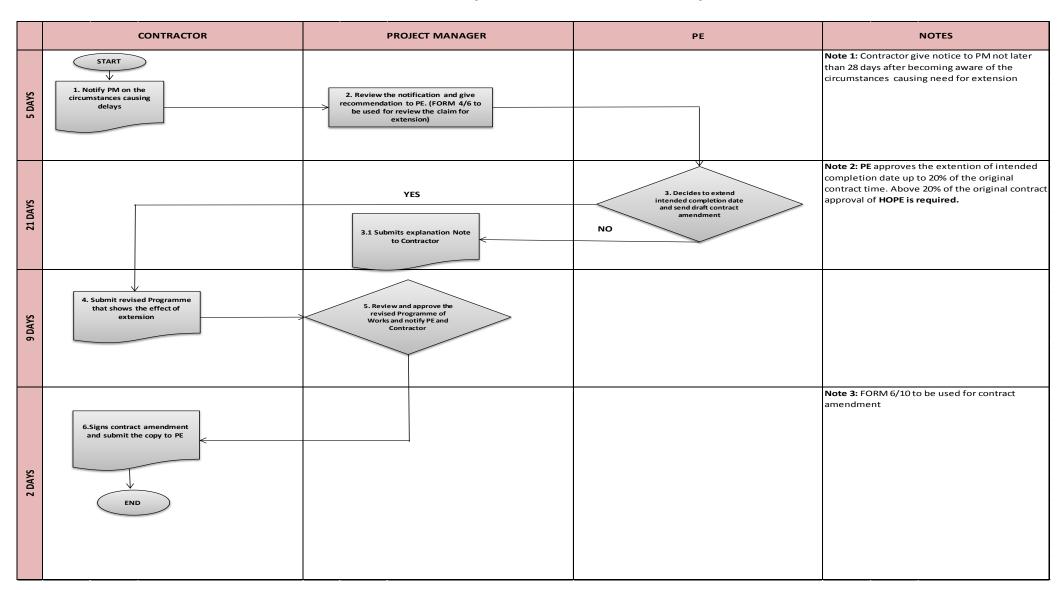
# Annex I - Process map: Interim payments

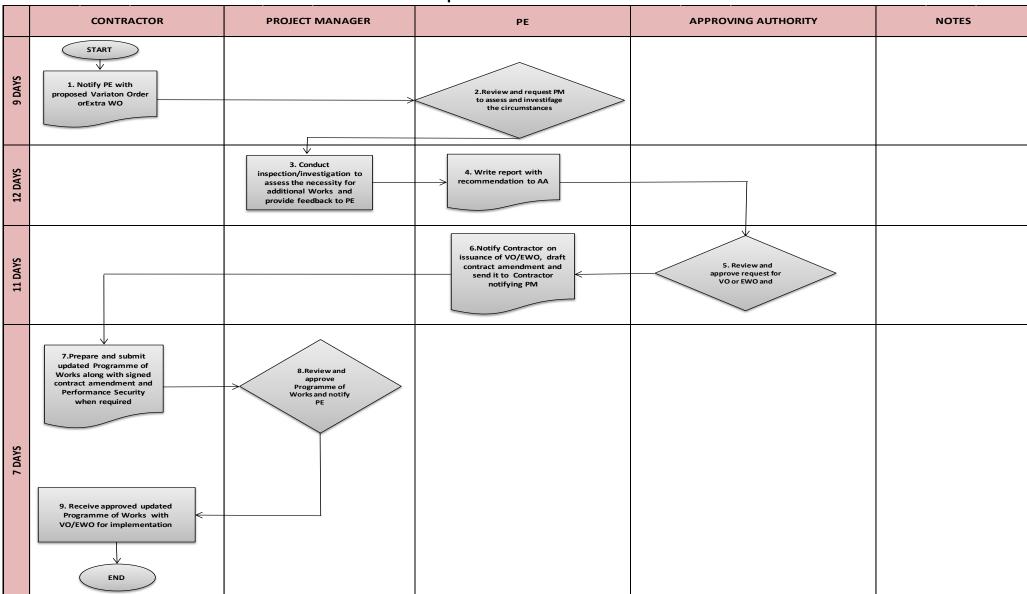


## Annex II - Process map: Final payment



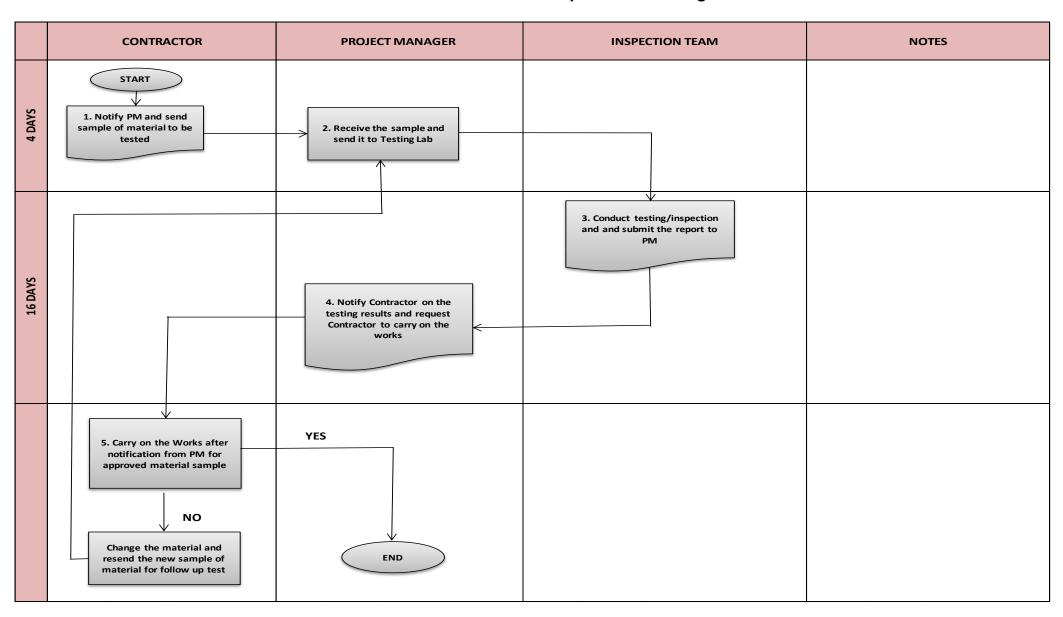
#### Annex III - Process map: Extension of intended completion date



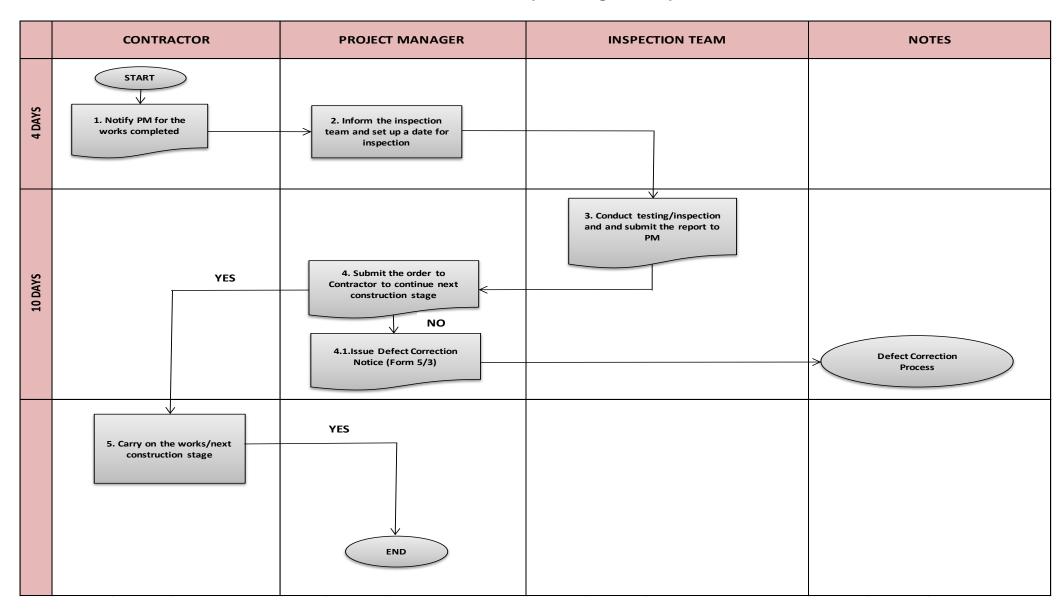


Annex IV - Process map: Issue of Variation Order or Extra Work Order

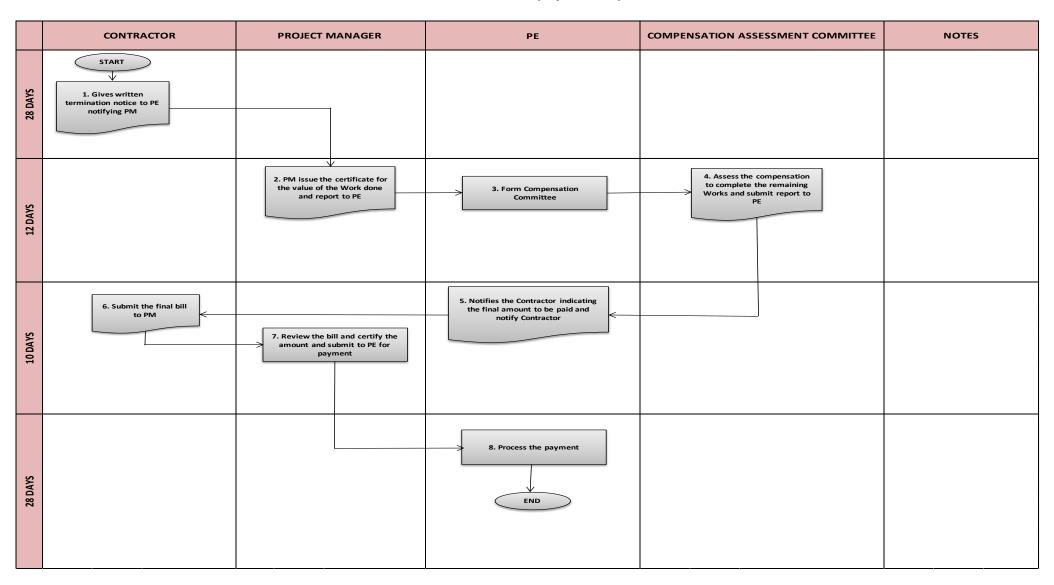
Annex V - Process map: Material testing



#### Annex VI - Process map: Testing and inspection



#### Annex VII - Termination and payment upon termination



Annex VIII - Process map: Settlement of disputes

