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VOLUME 1/IV

CONDITIONS OF CONTRACT

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CONDITIONS OF CONTRACT

CONDITIONS OF CONTRACT

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PREFACE

The Conditions of Contract comprise two parts:

Part I - General Conditions
Part II - Conditions of Particular Application (COPA)

1- PART I - GENERAL CONDITIONS

The Conditions of Contract, Part I- General Conditions, shall be those forming Part I of the "CONDITIONS OF CONTRACT FOR WORKS OF CIVIL ENGINEERING CONSTRUCTION", fourth edition 1987, reprinted 1992 with further amendments, published by the FÉDÉRATION INTERNATIONALE DES INGÉNIEURS-CONSEILS (FIDIC) P.O. Box 86, CH 1000 Lausanne 12, Switzerland. Part I is not included in the bidding documents and should be obtained from the above mentioned address. The Contractor is deemed to have full knowledge of the General Conditions.

2- PART II - CONDITIONS OF PARTICULAR APPLICATION – (COPA)

The General Conditions are amended and supplemented by the Conditions of Particular Application (COPA), Part II and appendices which follow. In the event of any conflict between the General Conditions, Part I, and the Conditions of Particular Application - Part II, the latter shall govern.

The modified clauses in this PART II represent project particular circumstances and requirements.

Clause numbers in PART II correspond to those in PART I, except for clauses with number higher than 72 for which are additional.

Definitions and Interpretation

1.1 Definitions

Insert the following definitions (as appropriate) to the definitions in Sub-Clause 1.1:

(a) (i) The "Employer" is:
The Council for Development and Reconstruction (CDR)
Tallet El-Serail – Po Box 11-3170
Beirut Central District - Lebanon

(a) (iv) The "Engineer" is:
As stated in the Appendix to Bid

(a) (iv) is also amended by the addition of the following words after the word 'Conditions ': "or any other competent person appointed by the Employer, and notified to the Contractor, to act in capacity of the Engineer, without requiring approval of the Contractor."

(b) (v) is amended by the addition of the following words at the end:
"The word 'Tender' is synonymous with 'Bid', and the words 'Appendix to Tender' with 'Appendix to Bid' and the words 'Tender Documents' with 'Bidding Documents'."

(e) (ii) The reference given to be changed to Sub-Clause 60.5.

(iv) The reference given to be changed to Sub-Clause 60.13.

Engineer and Engineer's Representative

2.1 Engineer's Duties and Authority

Add the following to Sub- Clause 2.1(b):

The Engineer shall obtain the specific approval of the Employer before taking any of the following actions specified in Part I:

(i) giving consent for the subcontracting of any part of the Works under Clause 4;

(ii) notifying extension of time or additional cost which is determined under Clause 12;

(iii) suspending the progress of the Work under Clause 40;

(iv) determining an extension of time under Clause 44;

(v) issuing taking over certificates in respect of the Works under Clause 48;

(vi) issuing a variation under clause 51, except in an emergency situation, as reasonably determined by the Engineer;

(vii) fixing rates or prices under Clause 52;

(viii) determining of provisional sums under Clause 58;

(ix) determining of additional or reduced cost under Clause 70.

Assignment and Subcontracting

4.1 Subcontracting

In paragraph two, covering exceptions for which Engineer's consent is not required:

Delete "(a) the provision of labor";

against (b), delete existing text, and replace with "the purchase of materials or Plant which are in accordance with the standards specified in the Contract, or"

against (c), delete existing text, and replace with "the purchase or the subcontracting of any part of the Works for which the manufacturer or supplier or the Subcontractor is named in the Contract."

Add (d), Maximum aggregate value of subcontracted works shall not exceed the percentage amount of the Contract Price specified in the Appendix to Bid.

4.3 Subcontracting Additional Requirements

Add the following new Sub-Clause 4.3:

"In addition to obtaining the Engineer's consent pursuant to Sub-Clause 4.1, the Contractor shall:

a) notify the Engineer within 14 days of signing the Contract, and before commencing work on Site, of any parts of the Works he intends to subcontract for which approval of the Engineer is required under Sub-Clause 4.1. For each subcontract the following shall be provided:

   (i) the name, address and telephone and fax numbers of the Subcontractor;

   (ii) the nature and scope of the works to be subcontracted;

   (iii) information on the Subcontractor's experience of similar works and details of the Subcontractor's site supervision, sources of labor and Equipment and financial capabilities, in sufficient detail to enable the Engineer to determine if the Subcontractor is able to undertake and complete the subcontract works within the time and to the standards required by the Contract;

   (iv) the approximate value of the subcontract works based on the Contract prices;

   (v) the percentage of (iv) above and the overall percentage of subcontracted works as a proportion of the Contract Price;

   (vi) confirmation that the subcontract includes terms and conditions and all obligations and responsibilities contained in the Contract, in so far as these apply to the subcontract;

b) notify the Engineer at least 21 days prior to the date that the Contractor requires approval from the Engineer, of any proposed change to the Subcontractors notified under (a) above and of any additional parts of the Works he intends to subcontract. Similar information to that listed under (a) above shall be given for each subcontract;

c) include in his monthly reports to the Engineer, details of all subcontracts entered into, the names of the Subcontractors and the numbers of staff and labor for each Subcontractor on Site during the month;

d) provide, if requested by the Engineer, copies of documents such as wage sheets and details of the names and employment references for site staff and labor, invoices for the supply of materials, etc.;

e) include conditions and requirements in subcontracts similar to those in the Contract regarding assignment and sub-subcontracting the whole or part of the subcontract works including requirements similar to those under (a) to (d) above. Any approval by the Contractor to a Subcontractor regarding such assignment or sub-subcontracting shall be subject to the prior approval of the Engineer."

Contract Documents

5.1 Language/s and Law

The language is English for this Contract.
(a) The law is that in force in the Republic of Lebanon.

5.2 Priority of Contract Documents

Delete the documents listed 1- 6 and Substitute:

(1) The form of Agreement;
(2) The addendum(s) to Tender Documents (if any);
(3) The Appendix to Bid
(4) The Conditions of Particular Application (Part II);
(5) The General Conditions of Contract (Part I);
(6) The General Requirements and Preliminaries (if any);
(7) The Specifications;
(8) The Drawings;
(9) The priced Bill of Quantities
(10) The breakdown of Bill of Quantities prices
(11) Any other document forming part of the Contract including the Contractor's Bid insofar as it is not covered by any of the foregoing;

6.1 Custody and Supply of Drawings and Documents

Add the following paragraph at the end of Sub-Clause 6.1:

"The Employer without any obligation will make available, at his premises, all drawings, maps and investigation data relating to the works that are available with the Employer at the time of request by the Contractor. Provision of drawings, maps and investigation data that are not available from the Employer, will be the responsibility of the Contractor at his own expense."

6.3 Disruption of Progress

Insert after the words "drawing or instruction" the words "or approval"

6.4 Delays and Cost of Delay of Drawings

Insert after the words "drawing or instruction" the words "or approval".

6.5Failure by Contractor to Submit Drawings

Insert after the words "drawings or instructions" the words "or approvals".

7.2 Permanent Works Designed by the Contractor

Add the following at the end of paragraph a.

“At least 30 days prior to commencement of work on any section, the Contractor shall submit his proposed Permanent Work Design to the Engineer for approval. For each section of the works, construction shall not commence before receipt of approval from the Engineer for the relevant Permanent Work Design.”

7.4 As-Built Drawings

Add the following Sub-Clause 7.4:

"The Contractor shall prepare, and keep up-to-date, a complete set of "as-built" records of the execution of the Works, showing the exact "as-built" locations, sizes and details of the work as executed, with cross-references to relevant specifications, schedules of particulars and data sheets. These records shall be stored electronically using computer aided design (CAD) and Geographic Information System (GIS) software which is compatible with the systems used by the Employer and Engineer. Copies of all records shall be kept on the Site for the purpose of preparing and updating the “as-built” documents and drawings. The Contractor shall obtain the consent of the Engineer as to the size, the referencing system, and other pertinent details of the as-built drawings. Three hard copies and one soft copy completed within a period of 4 weeks following the completion of Works or Section shall be submitted to the Engineer’s approval. The Works or Section shall not be considered to be completed for the purposes of taking over in accordance with Clause 48 until the relevant as-built drawings have been submitted to and approved by the Engineer."

General Obligations

8.1 Contractor’s General Responsibilities

Add the following paragraph at the end of Sub- Clause 8.1:

“The Works as completed by the Contractor shall be wholly in accordance with the Contract, as defined therein. The Works shall include any work which is necessary to satisfy the Specification, Schedules, Bills of Quantities or is implied by the Contract. The Contractor shall be responsible for all works not mentioned in the Contract but which may be inferred to be necessary for stability or completion or the safe, reliable and efficient operation of the Works. The Contractor shall, before commencement of works, review the Contract Documents and complete them and shall inform the Engineer of any discrepancy found in the documents or missing work item necessary for the completion of the Works to the required standards. Failure to inform the Engineer will result in the obligation of the Contractor to complete these works at his own expense.

The whole of the construction materials, plant and labor to be provided by the Contractor and the manner and speed of performance of the Works shall be consistent with the terms of the Contract.”

10.1 Performance Security

Delete Sub-Clause 10.1 and Substitute by the following:

"The Contractor shall provide security for his proper performance of the Contract to the Employer within 10 days after the Contract notification. The Performance Security shall be in the form of a bank guarantee in accordance with the specimen attached hereto. The amount of the bank guarantee shall be 10% of the Contract price. The guarantee shall be payable on the Employer's first demand and issued by a bank located in Lebanon or by a foreign bank

through its correspondent bank located in Lebanon. The Performance Security shall be denominated in the currency in which the Contract Price is payable. When providing such security to the Employer, the Contractor shall notify the Engineer of so doing.

Without limitation to the provisions of the preceding paragraph, whenever the Engineer determines an addition to the Contract Price as a result of a change in cost and/or legislation or as result of a variation amounting to more than 15 percent of the original Contract Price, the Contractor, at the Engineer's written request, shall promptly increase the value of the Performance Security by an equal percentage."

The performance security of a Joint Venture shall be in the name of the Joint Venture. "

10.2 Period of Validity of Performance Security

Delete Sub-Clause 10.2 and Substitute by the following:

"This Guarantee is valid until (*insert date*) or 28days after the date of issue of the Defects Liability Certificate whichever comes later."

10.3 Claims under Performance Security

Delete Sub-Clause 10.3.

10.4 Cost of Performance Security

Add the following new Sub-Clause 10.4:

"The cost of complying with the requirements of this Clause shall be borne by the Contractor."

11.1 Inspection of Site

Delete Sub-Clause 11.1 and Substitute by the following:

"If available the Employer shall have made accessible to the Contractor, before submission by the Contractor of the Tender, such data on hydrological and sub-surface conditions made available to and obtained by or on behalf of the Employer from investigations undertaken relevant to the Works but the Contractor shall be responsible for his own interpretation thereof. The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself (so far as is practicable, having regard to considerations of cost and time) before submitting his Bid, as to:

a) the form and nature thereof, including the sub-surface conditions,

b) the hydrological and climatic conditions,

c) the extent and nature of work and materials necessary for the execution and completion of the Works and the remedying of any defects therein, and

d) the means of access to the site and the accommodation he may require and, in general, shall be deemed to have obtained all necessary information, subject as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect his bid."

e) Traffic conditions and traffic diversion requirements, if applicable.

11.2 Access to Data

Add the following new Sub-Clause

"Whenever data is made available by the Employer in accordance with Sub-Clause 11.1 it shall be deemed to include data listed elsewhere in the Contract as open for inspection at Employer's offices or at the Engineer's premises."

12.2 Not Foreseeable Physical Obstructions and Conditions

Add the following paragraph at end of Sub-Clause 12.2

"No costs shall be payable to the Contractor that are associated with any extension of time determined under this Sub-Clause.

Since the Contractor has to investigate and identify utilities and since this research is within his obligations, the following will not be considered as unforeseeable physical obstructions or conditions:

(a) any existing utility from whatsoever kind within the Works area, either acknowledged by the Contractor prior to the start of the Works or not,

(b) the nature of the soil in any part or section of the Works and

(c) any required partitioning of the Works and temporary usage of incomplete parts or sections of the Works. Such requirement being issued either by the Engineer or by the local authorities."

14.1 Programme to be Submitted

Add the following at the end of Sub-Clause 14.1:

"The Contractor shall submit for approval by the Engineer three (3) hard copies of the programme of works (work schedule) and one soft copy in an approved format within 21 days after the date of the Contract notification. There shall be no excuse for not submitting the baseline and the monthly updated schedules on time and within the required criteria. If the Contractor does not submit the work programme on time and within the required criteria the Engineer may withhold the amount stated in the Appendix to Bid from the next payment certificate and continue to withhold this amount until the payment following the date on which the overdue work programme has been submitted in anapproved format".

14.2 Revised Programme

Add the following at the end of Sub-Clause 14.2:

"The Revised programme shall be submitted for approval by the Engineer within 14 days of a request by the Engineer. The Engineer may request the revised programme at any time and for any reason that he sees fit. If the Contractor does not submit the revised programme on time and within the required criteria the Engineer may withhold the amount stated in the Appendix to Bid from the next payment certificate and continue to withhold this amount until the payment following the date on which the overdue revised programme has been submitted in an approved format".

14.3 Cash Flow Estimate to be Submitted

Add the following at the end of Sub-Clause 14.3:

"The detailed Cash Flow Estimate shall be submitted for approval by the Engineer within 21 days after the date of the Contract notification in a format and a level of detail approved by the Engineer. A revised cash flow estimate shall be submitted for approval by the Engineer within 14 days from the date requested by the Engineer."

14.5 Report of Delays

Add the following new Sub-Clause 14.5:

"The contractor shall promptly report in writing to the Engineer the occurrence of any event or condition that might delay or prevent completion of the works in accordance with the programme and indicate steps being taken to meet the situation."

14.6 Form and Detail of Programme

Add the following new Sub-Clause 14.6:

"The programme referred to in Sub-Clauses 14.1 and 14.2 shall indicate all the activities of the Contract in their correct sequence and order with a minimum detail at the Bill of Quantities level, and shall be based on a precedence network diagram using the Critical Path Method (CPM). The programme shall also be resource loaded (manpower, material and equipment) and cost loaded. This programme shall be the basis for monitoring the progress or otherwise of the works and will be considered as the "Baseline Schedule". The programme shall be computerized and prepared using a professional project management software package approved by the Engineer. This baseline schedule shall be regularly updated and submitted to the Engineer on a regular basis within the first week of every month for the preceding month."

14.7 Progress Reports to be Submitted

Add the following new Sub-Clause 14.7:

The Contractor shall submit to the Engineer reports on the Works progress, including a description of the Contractor's Manpower, Materials and Equipment on Site, in such form and details and at such intervals as the Engineer shall prescribe.

15.2 Language Ability of Contractor's Representative

Add the following new Sub-Clause 15.2:

"If the Contractor's authorized representative is not, in the opinion of the Engineer, fluent in English, the Contractor shall have available on site at all times a competent interpreter to ensure the proper transmission of instruction and information."

16.3 Language Ability of Superintending Staff

Add the following new Sub-Clause 16.3:

"A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of English. The Contractor shall have available on site at all times a sufficient number of competent interpreters to ensure the proper transmission of instructions and information."

17.1 Setting-Out

Add the following after the last paragraph of Sub-Clause 17.1:

"The Contractor shall inform the Engineer sufficiently in advance, not less than 48 hours before, of his intention to set out or give levels for any part of the Works so that timely arrangements may be made for checking or issuing instructions.

The drawings, lines and levels in the original Bidding Documents shall be treated as baseline information and the Contractor shall, without any additional cost and time be responsible for verifications, surveys, preparation of revised drawings and obtaining approval of the Engineer before the starts the works.

The Contractor shall also be responsible for the verification of the survey control points, benchmarks and such other information provided to him, and any errors or delays in the works caused by the Contractor's failure to verify the accuracy for such data will not be an acceptable cause for extension of time and additional cost to the Employer."

19.1 Safety, Security and Protection of the Environment

Add the following to Sub-Clause 19.1:

"(d) the Contractor shall protect the Works during inclement weather and shall use all reasonable means to proceed with performance of the Works during such weather and to prevent or minimize delays resulting there from,

(e) use reasonable efforts to keep the Site and the Works clear of unnecessary obstruction so as to avoid danger to persons and provide fencing, lighting, guarding and watching of the works until Completion and taking over,

(f) the Contractor shall comply with specific Safety, Health and Environmental requirements as issued by the Employer; see Sub-Clause 79.1."

20.4 Employer's Risks

Delete Sub-Clause 20.4 and Substitute by the following:

"The Employer's risks are:

a) insofar as they directly affect the execution of the Works in the country where the Permanent Works are to be executed:

   i) war and hostilities (whether war be declared or not), invasion, act of foreign enemies;

   ii) rebellion, revolution, insurrection, or military or usurped power, or civil war;

   iii) ionizing radiation, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof;

   iv) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds;

   v) riot, commotion or disorder, unless solely restricted to the employees of the Contractor or of his Subcontractors and arising from the conduct of the works;

b) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent works, except as may be provided for in the Contract;

c) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and

d) any operation of the forces of nature (insofar as it occurs on the Site) which an experienced Contractor:

(i) could not have reasonably foreseen, or

(ii) could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
- Prevent loss or damage to physical property from occurring by taking appropriate measures, or
- Insure against such loss or damage."

21.1 Insurance of Works and Contractor's Equipment

Add the following words at the end of sub-paragraph (a) and immediately before the last word of subparagraph (b) of Sub-Clause 21.1:

"it being understood that such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred,"

21.2 Scope of Cover

Amend subparagraph (a) of Sub-Clause 21.2 by deleting the words "... from the start of work at the Site ..." and by the substitution therefore the words "from the first working day after the Commencement Date".

Add the following as Sub-Clause (c) under Sub-Clause 21.2:

(c) it shall be the responsibility of the Contractor to notify the insurance company of any change in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times during the period of the Contract.

21.4 Exclusions

Delete Sub-Clause 21.4 and Substitute by the following:

There shall be no obligation for the insurance in Sub-Clause 21.1 to include loss or damage caused by the risks listed under Sub-Clause 20.4 paragraphs (a) (i) to (iv) of the Conditions of Particular Application, but shall include for all other Employer risks.

25.1 Evidence and Terms of Insurances

Delete Sub-Clause 25.1 and Substitute by the following:

All insurances required by the Contract shall be effected with insurers approved by the Employer and the terms of all insurance policies shall be approved by the Employer. Before commencing work on Site, the Contractor shall provide evidence to the Employer that the insurances have been effected and, not later than 30 days from the Commencement Date, the Contractor shall provide copies of the policies to the Employer and shall notify the Engineer accordingly.

25.5 Source of Insurance

Add the following new Sub-Clause 25.5:

"The insurers shall be registered at the Ministry of Commerce of the Republic of Lebanon and shall be licensed to operate in Lebanon in accordance with the Lebanese Law."

30.2 Transport of Contractor's Equipment or Temporary Works

Retitle sub-Clause 30.2 as: 30.2 Transport of Materials, Plant, Contractor's Equipment or Temporary Works

Add the words "Materials and Plant" before the phrase " Contractor's Equipment or Temporary Works" in the 4th line.

30.3 Transport of Materials or Plant

Delete this Sub-Clause entirely and Substitute by the following:

The Contractor shall bear responsibility for damages that he may inflict on road facilities pursuant to Clause 30.1 of these Conditions, and for the immediate rectification of any such damages.

31.2 Facilities for Other Contractors

Delete Sub-Clause 31.2 and Substitute by the following:

The Contractor shall, if so instructed by the Engineer or if specified in the Contract, provide any of the following services for the Employer's workmen or any such other contractor or authority carrying out work on or near the Site:

a) use of road or tracks which the Contractor is responsible to maintain
b) use of the Contractor's Temporary Works or Equipment
c) use of any other services instructed by the Engineer

The Engineer shall determine the amount of addition (if any) to the Contract Price in respect of such services in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer.

The Engineer in determining any additional cost pursuant to this clause will take into consideration wherever the said services provided by the Contractor in accordance with its provisions or the facilities made available in this regard are services or facilities already provided for in the Contract and shall not carry additional costs to the Employer.

33.2 Disposal of Contractor's Equipment, etc.

Add new Sub-Clause 33.2 as follows:

If the Contractor fails to remove any Contractor's Equipment, surplus material and Temporary Works pursuant to Sub-clause 33.1 within such reasonable time after completion of the Works as may be allowed by the Engineer then the Employer may:

(a) sell any which are the property of the Contractor, and
(b) return any which are not the property of the Contractor to the owner thereof at the Contractor's expense.

After deducting from any proceeds of sale the costs of and expenses in connection with such sale and return, the Employer shall pay the balance (if any) to the Contractor but to the extent that the proceeds of any sale are insufficient to meet all such costs and expenses, the excess shall be a debt due from the Contractor to the Employer and shall be deductible or recoverable by the Employer from any monies due or that may become due to the Contractor under the Contract or may be recovered by the Employer from the Contractor as a debt due.

33.3 Engineer's or Employer's Temporary Facilities

Add new Sub-Clause 33.3 as follows:

The Contractor shall maintain on Site until the end of the Defects Liability Period or for such shorter period as may be instructed by the Engineer, all temporary facilities provided for the Engineer or the Employer's staff and all facilities and equipment reasonably required by the Engineer for inspection or testing of the Works during the Defects Liability Period.

Labor

Add the following new Sub-Clauses 34.2 to 34.17:

34.2 Rates of Wages and Conditions of Labor

The Contractor shall pay rates of wages and observe conditions of labor not less favorable than those established for the trade or industry where the work is carried out. In the absence of any rates of wages or conditions of labor so established, the Contractor shall pay rates of wages and observe conditions of labor which are not less favorable than the general level of wages and conditions observed by other employers whose general circumstances in the trade or industry in which the Contractor is engaged are similar.

34.3 Employment of Persons in Service of Others

The Contractor shall not recruit or attempt to recruit his staff and labor from amongst persons in the service of the Employer or the Engineer.

34.4 Repatriation of Labor

The Contractor shall be responsible for the return to the place where they were recruited or to their domicile of all such persons as he has recruited and employed for the purposes of or in connection with the Contract and shall maintain such persons as are to be so returned in a suitable manner until they have left the Site or, in the case of persons who are not nationals of and have been recruited outside Lebanon, shall have left Lebanon.

34.5 Housing for Labor

Save insofar as the Contract otherwise provides, the Contractor shall provide and maintain such accommodation and amenities as he may consider necessary for all his staff and labor, employed for the purposes of or in connection with the Contract, including all fencing, water supply (both for drinking and other purposes), electricity supply, sanitation, cook house, fire prevention and firefighting equipment, air conditioning, cookers, refrigerators, furniture and other requirements in connection with such accommodation or amenities. On completion of the Contract, unless otherwise agreed with the Employer, the temporary camp/housing provided by the Contractor shall be removed and the site reinstated to its original condition, all to the approval of the Engineer.

34.6 Measures Against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect all staff and labor employed on the Site from insect nuisance, rats, and other pests and reduce the dangers to health and the general nuisance caused by the same. If necessary, the Contractor shall provide his staff and labor with suitable prophylactics for the prevention of malaria, and take steps to prevent the formation of stagnant pools of water. He shall comply with all the regulations of the local health authorities in these respects and shall in particular arrange to spray thoroughly with approved insecticide all buildings erected on the site. Such treatment shall be carried out at least once a year or as instructed by the Engineer. The Contractor shall warn his staff and labor of the dangers of local hazards.

34.7 Epidemics

In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government or the local medical or sanitary authorities, for the purpose of dealing with and overcoming the same.

34.8 Burial of the Dead

The Contractor shall make any necessary arrangements for the transport, to any place required for burial, of any of his expatriate employees or members of their families who may die in Lebanon. The Contractor shall also be responsible for making any arrangements with regard to burial of any of his local employees who may die while engaged upon the works.

34.9 Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his staff and labor and to preserve the peace and to protect persons and property in the neighborhood of the Works against such conduct.

34.10 Visas, Residence and Work Permits Etc.

The Contractor shall obtain all visas, residence permits, work permits and other permissions required for the employment of expatriate personnel. The Employer will provide assistance in obtaining such visas and permits but without thereby incurring any liability towards the Contractor.

34.11 Identification of Labor

All staff and labor on the Site shall be provided with identification as follows:
(a) identification badges incorporating the name and the photograph of the person and the name of the direct employer (Contractor, Subcontractor, etc.).
(b) hard hats with the name of the direct employer.

34.12 Accidents

The Contractor shall have in his staff on Site an officer dealing with questions regarding the safety and protection against accidents of all staff and labor. In the event of an accident, the Contractor shall immediately inform the engineer and shall give a full written report of the accident to the engineer. This officer shall be qualified for this work and shall have the authority to issue instructions and shall take protective measures to prevent accidents. The name and qualification of this safety officer shall be submitted to the Engineer within 14 days of the notice of commencement of works.

34.13 Health and Safety

Due precautions shall be taken by the Contractor to ensure the safety of his staff and labour and, in collaboration with and to the requirements of the local health authorities, to ensure that medical staff, first aid equipment and stores, sick bay and suitable ambulance service are available at the camps, housing and on the Site at all times throughout the period of the Contract and that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements.

34.14 Festivals and Religious Customs

The Contractor shall in all dealings with his staff and labor have due regard to all recognized festivals, days of rest and religious or other customs.

34.15 Labor Laws

The Contractor shall comply with all laws and regulations regarding the employment of labor in Lebanon, including any laws or regulations that come into force after the date of the Bid.

34.16 Supply of Water

The Contractor shall provide on the Site an adequate supply of drinking and other water for the use of his staff and labor.

34.17 Alcoholic Liquor or Drugs

The Contractor shall not sell or give to any person nor allow the importation on to the Site or to any accommodation provided for his labor, of alcoholic liquor or narcotic drugs.

36.4 Costs of Tests Not Provided For

Add the words "those stated in the Contract or" before the words "the Site" in the 2nd line of sub-paragraph (c).

Commencement and Delays

41.1 Commencement of Works

Add the following words “but not exceeding 30 days” after the words “as soon as is reasonably possible”

Replace “the Engineer” in the second line by “the Employer”.

42.1 Possession of Site and Access Thereto

Replace “the Engineer’s notice to commence” in paragraph (b) with “Employer’s notice to commence”.

Add a final paragraph as follows:

"The Contractor shall not commence work on any Section or site unless he has given 14 days' written notice to the Engineer of his intention to do so, and the work on the site in question is shown on the latest programme consented to in accordance with Sub-Clause 14.1 at the appropriate date. Before commencing any work, the Contractor shall have agreed with the

Engineer any survey of original ground levels and other records of existing works which may be required by the Engineer for measurement and as-built records."

42.2 Failure to Give Possession

Delete paragraph (b).

44.1 Extension of Time for Completion

Add the following paragraph at the end of Sub-Clause 44.1:

"In determining any extension of the Time for Completion under this Sub-Clause, the Engineer shall be entitled to take into account the effect of work omitted by any order issued by him pursuant to Sub-Clause 51.1 but he shall have no power to reduce the Time for Completion stated in the Appendix to Bid."

Notwithstanding any provisions to the contrary elsewhere in these conditions, there shall be no costs to be paid to the Contractor in respect of any extension of time granted to the Contractor

47.1 Liquidated Damages for Delay

Add the phrase "except for any monies payable pursuant to Sub-Clause 47.3" after the words "such default" in line 6.

Add the following at the end of Sub-Clause 47.1:

The liquidated damages shall be payable in the currencies and proportions in which the Contract Price is payable.

47.3 Costs of Supervision Resulting from Delays

Add new Sub-Clause 47.3 as follows:

"In addition to the damages stipulated in Sub-Clause 47.1, the Contractor shall be obliged to bear the additional cost for the Engineer during the period of delays, If the delay exceeds 20% of the programmed Contract Period, submitted by the Contractor in accordance with sub-clause 14.1, and results from an action or omission by the Contractor as determined by the Engineer. This additional cost for the Engineer shall be calculated on the basis of the Engineer's remuneration from the Employer for his services on the Contract and as follows:

(a) if the delay is determined to be solely due to the Contractor’s actions or inaction, then the Contractor shall bear 50% of the Engineer’s supervision fees for the period exceeding 20% of the Contract Period as defined in Sub- Clause 47.3.

(b) if the delay is determined to be due to both the Contractor’s and Engineer’s actions or inaction, then the Contractor shall bear 25% of the Engineer’s supervision fees for the period exceeding 20% of the Contract Period as defined in Sub- Clause 47.3.

48.1 Taking Over Certificate

Add the following paragraph at the end of Sub-Clause 48.1:

“Provided that, in any case, no Taking Over Certificate shall be issued or shall be deemed to have been issued until the Contractor has provided to the Engineer:

(a) operation and maintenance manuals required under the Contract in respect of the Works or Section, and

(b) the as-built drawings and final measurements for the Works or Section.

Notwithstanding any provisions to the contrary elsewhere in this Clause, the Employer shall issue or authorize the Engineer on his behalf to issue the Taking-Over Certificate for the whole of the Works, and for sections or parts of the Works."

48.2 Taking-Over of Sections or Parts

Add the following paragraphs at the end of Sub-Clause 48.2:

"Notwithstanding the foregoing, no Taking– Over Certificate shall be issued until all work including plants, civil, electrical, mechanical and rehabilitation works within a section have been substantially completed and all damage to public or particular properties has been substantially repaired.

The Contractor shall take into consideration that putting new services and utilities into operation during construction and opening of new roads or sections of constructed roads to traffic during construction shall not constitute a case for Taking-Over of sections or parts under Sub- Clauses 48.2(b) and 48.2(c) unless provided for elsewhere under the Contract."

Defects Liability

49.1 Defects Liability Period

Add the following paragraph at the end of Sub-Clause 49.1:

"The Defects Liability Period for this Contract is mentioned in the Appendix to Bid. However, with respect to defects appearing after the interconnection of two or more sections which have been taken over separately, the Contractor's responsibility shall remain to exist for all interconnected sections until the latest of the defects Liability Periods have expired".

49.2 Completion of Outstanding Work and Remedying Defects

Delete Sub-Clause 49.2 and Substitute the following:

To the intent that the Works shall, at or as soon practicable after the issue of the Taking-Over Certificate and prior to the expiration of the Defects Liability Period, be delivered to the Employer in the Condition required by the Contract, fair wear and tear excepted, to the satisfaction of the Engineer, the Contractor shall:

a) attend to and complete and/or correct all work, if any, outstanding on the date stated in the Taking-Over Certificate as soon as practicable after such date, but in any event within 28 days of the date of issue of such Taking-Over Certificate and,
b) execute all such work of amendment or reconstruction, and remedying defects, shrinkages or other faults as the Engineer may, whether during or within 14 days of the expiration of the relevant Defects Liability Period, as a result of inspections made by or behalf or the Engineer prior to its expiration, instruct the Contractor to execute. The Contractor shall attend to execute all such work as soon as practicable, but in any event within 14 days of the date of receipt of such instructions.

Provided that at all times due regard shall be taken by the Contractor to occupancy, operational and utilization requirements of the Taken-Over Works, and reasonable arrangements be made for access to enable execution and completion of all such work and

remedying all such defects within the times prescribed or other times as may be agreed giving regard to occupancy, operation and utilization.

49.5 Extension of Defects Liability

Add the following new Sub-Clause 49.5:

"The provisions of this Clause shall apply to all replacements or renewals of Plant carried out by the Contractor to remedy defects and damages as if the replacements and renewals had been taken over on the date they were completed. The Defects Liability Period for the Works shall be extended by a period equal to the period during which the works cannot be used by reason of a defect or damage. If only part of the Works is affected the Defects Liability Period shall be extended only for that part. In neither case shall the Defects Liability Period extend beyond 3 years from the date of taking over.
When progress in respect of plant has been suspended under Clause 40, the Contractor's obligations under this Clause shall not apply to any defects occurring more than 2 Years after the Time for Completion established on the date of the Letter of Acceptance".

Alterations, Additions and Omissions

51.1 Variations

Delete Sub clause 51.1 (b) and substitute by the following:

(b) omit any such work without payment to the Contractor of any monetary compensation, including but not limited to loss of profit and overhead recovery on the omitted works.

51.2 Instruction for Variations

Delete Sub clause 51.2 and substitute by the following:

"The Contractor shall not make any such variation without an instruction of the Engineer. The Contractor shall proceed with the varied work immediately upon receipt of an instruction to that effect from the Engineer, regardless of whether or not an agreement on price has been reached."

52.1 Valuation of Variations

Add the following paragraphs at the end of Sub- Clause 52.1:

"For the purpose of evaluating and agreeing suitable rates or prices as prescribed under Sub-Clause 52.1 and this Sub-Clause 52.2, the Contractor shall, whenever so requested by the Engineer, submit to the Engineer a complete, substantiated buildup of his proposed rates and/or prices in such detail and format required by the Engineer, allocated to component costs of 'labor', 'materials', 'plant', 'equipment', 'other charges' and 'overhead and profit'. If the Contract rates and prices cannot be used as a basis for valuation due to the absence of comparable items in the Contract, the Contractor shall submit to the Engineer a complete substantiated buildup of the rate and/or prices in such detail and format required by the Engineer including the direct cost of labor, materials, plant, equipment and other charges and overhead and profit."

52.2 Power of Engineer to Fix Rates

Add the following paragraph at the end of first paragraph of Sub-Clause 52.2:

"Provided further that no change in the unit rates or prices for any item contained in the Contract shall be considered unless the final quantity of the work done increases by more than 25% from the quantity set out in the Bill of Quantities for the particular item and the change exceeds an amount of more than 2% of the Contract Price. Rate adjustment shall be applicable only to quantities in excess of 25% over the original quantity entered in the Bill ofQuantities for any applicable item. Rate adjustment is applicable in case of variation order or re-measurement of quantities."

Add the following at the end of Sub-Clause 52.2:

"Where the Contract provides for the payment of the Contract Price in more than one currency, the amount or proportion payable in each of the applicable currencies shall be specified when the rates or prices are agreed, fixed, or determined as stated above, it being understood that in specifying these amounts or proportions the Contractor and the Engineer (or, failing agreement, the Engineer) shall take into account the actual or expected currencies of cost (and the proportions thereof) of the inputs of the varied work without regard to the proportions of various currencies specified in the Appendix to Bid for payment of the Contract Price".

52.3 Variation Exceeds 15 percent

Replace '15 percent' with '25 percent' wherever it occurs in this Clause.

Add the following at the end of Sub-Clause 52.3:

“The effect on the final Contract Price due to re-measurement shall not be considered within the 25% addition or omission referenced in Sub-Clause 52.3.

Where the Contract provides for the payment of the Contract Price in more than one currency, the amount or proportion payable in each of the applicable currencies shall be specified when such further sum is agreed or determined, it being understood that in specifying these amounts or proportions the Contractor and the Engineer (or, failing agreement, the Engineer) shall take into account the currencies (and the proportions thereof) in which the Contractor's Site and general overhead cost of the Contract were incurred without being bound by the proportions of various currencies specified in the Appendix to Bid for payment of the Contract Price".

Procedure for Claims

53.1 Notice of Claims

Add the following at the end of the paragraph:

“If the Contractor fails to give notice of claim within such period of 28 days, then the contractor shall not be entitled to additional payment, the time period shall not be extended and the Employer shall be discharged from all liability in connection with the claim.

The Contractor shall also submit other notices which are required by the Contract and any particulars and contemporary records supporting the claim, all as relevant to such event or circumstance.

53.4 Failure to Comply

Delete Sub clause 53.4 and substitute by the following:

If the Contractor fails to comply with any of the provisions in this Clause in respect of any claim which he seeks to make, he shall not be entitled to any additional payment.

Notwithstanding any other provision of the Contract, including without limitation the provisions of Sub-Clause 6.14 of the Conditions of Contract, if the Contractor fails to comply with any of the provisions of the Contract, including without limitation the provisions of Sub-Clauses 6.4, 44.1, 44.2, 44.3, 53.1, 53.2 and/or 53.3 of the Conditions of Contract, in respect of any act, event or omission of whatever nature which in the opinion of the Contractor should result in an increase in the Contract Price and/or an extension of the Time for Completion, such failure shall constitute on the part of the Contractor a definitive and irrevocable waiver of, and release of the Engineer and the Employer from, any and all claims arising from any such act, event or omission and the Contractor shall be irrevocably stopped from raising any claims arising from any such act, event or omission thereafter**.**

Contractor's Equipment, Temporary Works and Materials

54.3 Customs Clearance

Delete Sub-Clause 54.3 and substitute by the following:

The Contractor shall be solely responsible for obtaining clearance through customs for Contractor's Equipment, materials etc. imported for the Works.

54.9 Temporary Facilities and Services for The Engineer

Add the following new Sub-Clause 54.9:

"If the Contractor fails to provide and maintain any of the Temporary Works and services required for the use of the Engineer's Representative and his staff and for the use of the employer's Representative if applicable, then the Employer shall after serving a notice to the Contractor specifying this default be entitled to provide and maintain such Temporary Works and services and shall be entitled to recover from the Contractor the cost thereof or may deduct the same from any monies due or that become due to the Contractor."

Measurement

56.1 Work to be Measured

Add the following at the end of Sub-Clause 56.1:

“For the purpose of ascertaining and determining the value of the Works as stated in this Clause, the Measurement of the Works as executed and associated As-Built Drawings shall be carried out by the Contractor progressively and timely, and submitted to the Engineer for his approval”.

57.1 Method of Measurement

Delete Sub-Clause 57.1 and Substitute by the following:

The Works shall be measured net in accordance with the Method of Measurement included with the Specification and in accordance with the descriptions of items and preambles stated in the Specification and Bill of Quantities.

57.2 Breakdown of Lump Sum Items

Retitle Sub-Clause 57.2 as “Breakdown of Lump Sum Items and Unit Rates”

Delete the text of Sub-Clause 57.2 and Substitute with the following:

For the purposes of statements, under Sub-Clause 60.1, the Contractor shall submit with his Bid the following information concerning the Contract Price:

(a) a breakdown of all lump sums included in the bid;

(b) a breakdown of all unit rates and prices contained in the priced Bill of Quantities, showing the costs of labor, materials, plant, equipment and other charges;

The Engineer shall have the right to request, and the Contractor shall provide a further breakdown of all unit rates and prices including a detailed breakdown of "other charges".

Certificates and Payment

Delete Sub-Clauses 60.1 to 60.10 and Substitute with the following Sub-Clauses 60.1 to 60.14.

60.1 Monthly Statements

The Contractor shall submit a statement in 2 copies to the Engineer at the end of each month, in a tabulated form approved by the Engineer, showing the amounts to which the Contractor considers himself to be entitled. The statement shall include the following items, as applicable, which shall be taken into account in the sequence listed:

a) the estimated Contract value of the Temporary and Permanent Works executed up to the end of the month in question, determined in accordance with Sub-Clause 56.1, at the unit rates and prices included in the Contract;

b) the actual value certified for payment for the Temporary and Permanent Works executed up to the end of the previous month, at the unit rates and prices included in the Contract;

c) the estimated Contract value at the unit rates and prices included in the Contract of the Temporary and Permanent Works for the month in question obtained by deducting (b) from (a);

d) the value of any variations executed up to the month in question, less the amount certified in the previous Interim Payment Certificate, expressed in the relevant amounts of foreign and local currencies, pursuant to Clause 52;

e) any amount to be withheld under;

   (i) the retention provision of Sub-Clause 60.5, determined by applying the percentage set forth in Sub-Clause 60.5 and,

   (ii) the suspension and payment deduction provisions of Sub-Clause 79.1 Safety, Health and Environmental Regulations;

   (iii) the withholding provisions of Sub-Clauses 14.1 and 14.2;

f) any amount to be deducted as repayment of the Advance Payment under the provision of Sub-Clause 60.7.

g) Subject to the Conditions of Contract and to item (h) of this sub-clause, any other sum expressed in the applicable currency or currencies to which the Contractor may be entitled to under the Contract.

h) The Employer’s financial procedures require that overrun in quantities of Bill of Quantities and items with new rates or for extra payment, be processed in the form of comparative schedules of quantities and approved by the Employer prior to inclusion for payment in the interim certificates.

60.2 Monthly Payments

The Contractor's statements shall be approved or amended by the Engineer in such a way that in his opinion, it reflects the amounts due to the Contractor in accordance with the Contract, after deduction, other than pursuant to Clause 47, of any sums which may have become due and payable by the Contractor to the Employer. In cases where there is a difference of opinion as to the value of any item, the Engineer’s view shall prevail.

Within 28 days of receipt of the monthly statement referred to in Sub-Clause 60.1, the Engineer shall determine the amounts due to the Contractor and shall issue to the Employer and the Contractor a certificate herein called "Interim Payment Certificate", certifying the amounts to the Contractor.

Provided that the Engineer shall not be bound to certify any payment under this sub-clause if the net amount thereof, after all retentions and deductions, would be less than the Minimum Amount of Interim Payment Certificates stated in the Appendix to Tender. However, in such case, the unpaid certificate amount will be added to the next interim payment, and the cumulative unpaid certified amount will be compared to the minimum amount of interim payment.

Payment items of TEMPORARY WORKS AND SERVICES if listed in the Bill of Quantities shall be paid as well be certified by the Engineer taking regard to the initial running and closing out components of these works and shall also be progress related to the execution of the permanent works.

Notwithstanding the terms of this Clause or any clause of the Contract, no amount will be certified by the Engineer for payment until the performance security has been provided by the Contractor and approved by the Employer.

60.3 Materials and Plant

This Contract is not subject for payment of materials brought by the Contractor and stored on the Site for incorporation in the Permanent Works. The Contractor shall be deemed to have included for this procedure in his unit rates and Contract Price.

60.4 Place of Payment

Payments to the Contractor by the Employer shall be made in the currencies in which the Contract Price is payable, into a bank account or accounts nominated by the Contractor.

60.5 Retention Money

A retention amounting to the percentage stipulated in the Appendix to Bid of the amounts due in each currency, determined in accordance with the procedure set out in Sub-Clause 60.1(e) shall be made on all payments under this Contract, except the advance payment. If no, or no other, percentage is mentioned in the Appendix to Bid, the percentage of the retention shall be 10%.

60.6 Payment of Retention Money

Upon the issue of the Taking-Over Certificate with respect to the whole of the Works, one half of the Retention Money shall be certified by the Engineer for payment to the Contractor.

Upon the issue of a Taking-Over Certificate with respect to a Section or part of the permanent works only such proportion thereof as the Engineer determines having regard to the relative value of such Section or part of the permanent works, will be certified by the Engineer for payment to the Contractor.

Upon the expiration of the Defects Liability Period for the Works the other half of the Retention money shall be certified by the Engineer for payment to the Contractor, provided that, in the event of different Defects Liability Periods being applicable to different sections or Parts of the Permanent works pursuant to Clause 48, the expression "expiration of the Defects Liability period" shall, for the purposes of this Sub-Clause, be deemed to mean the expiration of the latest of such periods.

Provided also that if at such time, there shall remain to be executed by the Contractor any work instructed, pursuant to Clause 49 and 50, in respect of the Works, the Engineer shall he entitled to withhold certification until completion of such work of so much of the balance of the Retention Money as shall, in the opinion of the Engineer, represent the cost of the work remaining to be executed.

60.7 Advance Payment

Unless agreed otherwise in the Contract Agreement, the Employer will make an interest-free Advance Payment to the Contractor in an amount stated in the Appendix to Bid. The advance payment shall be used exclusively towards site mobilization, launching of works, material purchase at an early stage of the project, for the purpose of limiting the contractor burden related to price variation. Payment of such advance amount will be due under separate certification by the Engineer after (a) execution of the Contract Agreement thereto: (b) provision by the Contractor of the performance security in accordance with Sub Clause 10.1; (c) provision by the Contractor, of an unconditional bank guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment; and (d) issuance of a notice of commencement of Works by the Employer. Such bank guarantee shall remain effective until the advance payment has been repaid pursuant to the paragraph below, but the amount thereof shall be progressively reduced by the amount repaid by the Contractor as indicated in interim Payment Certificates issued in accordance with this Clause.

The Advance Payment shall be repaid through percentage deductions at a rate stated in the Appendix to bid from the interim payments certified by the Engineer in accordance with this clause until such time the advance payment has been fully repaid; always provided that the advance payment shall be completely repaid prior to the time when 80 percent of the Contract Price has been certified for payment.

60.8 Time of Payment and Interest

The amount due to the Contractor under any Interim Payment Certificate issued by the Engineer pursuant to this clause, or to any other term of the Contract, shall, subject to clause 47, be paid by the Employer to the Contractor within 60 days after the Contractor’s monthly statement certified by the Engineer has been received by the Employer, in the case of the final Certificate pursuant to Sub-Clause 60.13 within 84 days after the agreed and certified Final Statement by the Engineer and written discharge have been received by the Employer. In the event of the failure of the Employer to make payments within the time stated, then the Employer shall pay to the contractor simple annual interest at the rate stated in the Appendix to Form of Bid.
The Contractor shall not be entitled to compound interest under any circumstances.

60.9 Correction of Certificates

The Engineer may by any Interim Payment Certificate make any correction or modification in any previous Interim Payment Certificate which has been issued by him, and shall have authority, if any work is not being carried out to his satisfaction, to omit or reduce the value of such work in any Interim Payment Certificate.

60.10 Statement at Completion

Not later than 56 days after the issue of the Taking-Over Certificate in respect of the whole of the Works, the Contractor shall submit to the Engineer a draft Statement at Completion fully substantiated with supporting documents showing in detail, as approved by the Engineer, and subject to all supporting final measurement to have been previously prepared and submitted by the Contractor to the Engineer in accordance with the Contract:

(a) The final value of all work done in accordance with the Contract up to the date stated in such Taking-Over Certificate.

(b) Any further sums which the Contractor considers to be due, and

(c) An estimate of amounts which the Contractor considers will become due to him under the Contract. Such estimated amounts, fully substantiated, in detail as approved by the Engineer, shall be shown separately in such Statement at Completion. Claims and new rates that have not been previously duly notified and particularized by the Contractor under the Contract, although may be listed, shall be processed separately by the Contractor under the applicable Clauses of the Contract and shall not be due for any certification by the Engineer within the Interim Certificate that may be issued in respect of the Statement at Completion

The Statement at Completion shall thus be Contractor's total statement for all sums he considers to be his entitlement under the Contract excepting the second portion of the Retention money and other works that may arise as may be instructed during the Defects Liability Period.

If the Engineer disagrees with or cannot verify any part of the draft Statement at Completion the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the Statement as may be agreed between them. The Contractor shall then prepare and submit to the Engineer a revised Statement at Completion as agreed (for the purposed of these Conditions referred to as the Statement at Completion)

If following discussions between the Engineer and the Contractor and any changes to the draft Statement at Completion which may be agreed between them, it becomes evident that a non-conformity or a dispute exists, the Engineer shall issue to the Employer an Interim Payment Certificate for those parts of the draft Statement at Completion which are not in dispute or not in non-conformity. The non-conformity or dispute shall then be settled in accordance with Clause 53 or Clause 67 respectively. The Statement at Completion shall then be agreed upon settlement of the non-conformity or/and the dispute as the case may be.

60.11 Final Statement

Not later than 56 days after the issue of the Defects Liability Certificate pursuant to Sub Clause 62.1, the Contractor shall submit to the Engineer for consideration a draft Final Statement with supporting documents showing in detail, in the form approved by the Engineer:

(a) The value of all work done in accordance with the Contract and all sums due to the Contractor under the Contract as shall have been agreed in the Statement at Completion, and

(b) the second portion of the Retention Money due, and

(c) any other sums that are considered due during the Defects Liability Period for further works instructed by the Engineer during such period.

The Engineer shall attend to the draft Final Certificate in the manner prescribed under Sub-Clause 60.10 for the Certificate at Completion and in this regard for the purpose of these conditions the revised Statement submitted by the Contractor as agreed shall be referred to as the "Final Statement".

60.12 Discharge

Upon submission of the Final Statement, the Contractor shall give to the Employer, with a copy to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor arising out of or in respect of the Contract. Provided that such discharge shall become effective only after payment due under the Final Certificate issued pursuant to Sub-Clause 60.13 has been made and the Performance Security referred to Sub-Clause 10.1 has been returned to the Contractor.

60.13 Final Payment Certificate

Within 28 days after receipt of the Final Statement, and the written discharge, the Engineer shall issue to the Employer (with a copy to the Contractor) a final Certificate stating:

(a) the amount which, in the opinion of the Engineer, is finally due under the Contract and

(b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled under the Contract, other than Clause 47, the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer as the case may be.

60.14 Cessation of Employer's Liability

The Employer shall not be liable to the Contractor for any matter arising out of or in connection with the Contract or execution of the Works unless the Contractor shall have included a claim in respect thereof in his Final Statement and (except in respect of matters arising after the date of the Taking Over Certificate in respect of the whole of the Works) in the Statement at Completion referred to in Sub-Clause 60.10.

62.1 Defects Liability Certificate

Delete Sub-clause 62.1 and substitute by the following:
After the expiration of the Defects Liability Period of the whole of the Works, or if different defects liability periods shall become applicable to different sections or parts of the Permanent Works for which the Contractor formally notified its request(s) for inspection and verification that the Contractor has discharged all its obligations with respect to such parts or sections, the expiration of the latest such period, and as soon thereafter as any works instructed pursuant to Clauses 49 and 50, have been completed to the satisfaction of the Engineer, the Contractor may give a notice to that effect to the Engineer with a copy to the Employer. Such notice shall be deemed to be a request by the Contractor to the Engineer and the Employer to issue a Defects Liability Certificate (Final Taking-Over). The Employer after due recommendation by the Engineer shall within 60 days issue or authorize the Engineer to issue on his behalf a Defects Liability Certificate for the whole of the Works. The Defects Liability Certificate shall be a condition precedent to the payment to the Contractor of the second portion of the Retention Money in accordance to the Conditions set out in Sub-Clause 60.6.

Remedies

63.5 Assignment and Subcontracting, Additional Remedies

Add the following new Sub-Clause 63.5:

"Without prejudice to the remedies under Sub-Clause 63.1 or any other Clause in the Contract, if the Contractor assigns or subcontracts the whole or any part of the Works in contravention of Sub-Clauses 3.1 or 4.1 or if a Subcontractor assigns or subcontracts the whole or part of the subcontracts works in contravention of Sub-Clause 4.3(e), the Engineer may, subject to the prior consent of the Employer, take action in respect of either or both of the following:

(a) instruct the Contractor to dismiss and remove immediately, or within such other time as may be specified in the instruction, the Subcontractor, or the sub-Subcontractor from the Site;

(b) deduct, as penalty from moneys otherwise due to the Contractor, up to 15% of the value of the works assigned, subcontracted or sub-subcontracted, based on the Contract Price, as estimated by the Engineer.

If there is insufficient money due to the Contractor to cover the deduction referred to in Sub-Clause 63.5 (b), the Employer shall have the right to call on the Contractor's performance security in order to recover the said moneys.

The Contractor shall not be entitled to any extension of time for completion under Sub-Clause 44.1 arising out of any delay caused by the dismissal and removal of the Subcontractor or sub-Subcontractor from the Site."

Special Risks

65.2 Special Risks

Delete Sub-Clause 65.2 (a) and Substitute by the following:

(a) "The Special Risks are the risk defined under paragraph (a), sub-paragraphs (i) to (v) of Sub-Clause 20.4."

Settlement of Disputes

Delete Sub-Clauses 67.1, 67.2, 67.3, and 67.4 and Substitute with the following:

67.1 Engineer's Decision

If a dispute of any kind whatsoever arises between the Employer and the Contractor in connection with, or arising out of, the Contract or the execution of the Works, whether during the execution of the Works or after their completion and whether before or after repudiation or other termination of the Contract, including any dispute as to any opinion, instruction, determination, certificate or valuation of the Engineer, the matter in dispute shall, in the first place, be referred in writing to the Engineer, with a copy to the other party. Such reference shall state that it is made pursuant to this Clause. No later than the eighty-fourth day after the day on which he received such reference the Engineer shall give notice of his decision to the Employer and the Contractor. Such decision shall state that it is made pursuant to this Clause.

Unless the Contract has already been repudiated or terminated, the Contractor shall in every case, continue to proceed with the Works with all due diligence and the Contractor and the Employer shall give effect forthwith to every such decision of the Engineer unless and until the same be revised, as hereinafter provided, in an Amicable Settlement or litigation.
If the Employer or the Contractor are dissatisfied with any decision of the Engineer, or if the Engineer fails to give notice of his decision on or before the eighty-forth day after the day on which be received the reference, then either the Employer or the Contractor may commence Amicable Settlement.

67.2 Amicable Settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this contract or the interpretation thereof.

67.3 Jurisdiction

Any dispute between the Parties which cannot be settled amicably, shall be submitted to the courts of proper jurisdiction in the Republic of Lebanon.

Notices

68.2 Notice to Employer and Engineer

For the purposes of this Sub-Clause the respective addresses are:

(a) Employer's address:
The Council for Development and Reconstruction (CDR)
Tallet El-Serail – Po Box 11-3170
Beirut Central District – Lebanon

(b) Engineer's address:
As stated in the Appendix to Form of Bid

Default of Employer

69.1 Default of Employer

Delete Sub-Clause 69.1(a).

Delete Sub-Clause 69.1 (d).

69.4 Contractor's Entitlement to Suspend the Work

Delete Sub-clause 69.4 and Substitute by the following:

The Contractor may, if the Employer fails to pay the amount due under any certificate of the Engineer within 60 days after the expiry of the time stated in Sub-Clause 60.8 within which payment is to be made, subject to any deduction that the Employer is entitled to make under the Contract, after giving 60 days prior notice to the Employer, with a copy to the Engineer, reduce the rate of work in a manner that the Contractor shall clearly specify and reflect in a revised programme of work, showing the rate of work to be reduced and intended reduction in resources, fully documented and submitted for the Engineer's verification.

69.5 Resumption of Work

Delete Sub-clause 69.5 and Substitute by the following:

Where the Contractor reduces the rate of work, having given notice in accordance with Sub-Clause 69.4, and the Employer subsequently pays the amount due or part of the amount due in any form of payment, the Contractor shall resume normal working as soon as reasonably possible but in any case not exceeding 30 days from such payment.

Changes in Cost and Legislation

70.1 Increase or Decrease of Cost (Price Adjustment)- (If Applicable)

Delete Sub-Clause 70.1 and Substitute by the following:

"The amounts payable to the Contractor pursuant to Sub-Clause 60.1, shall be adjustable only in respect of rise or fall in cost for the following items:

	Description	Equation
A	Reinforcement Steel	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.70 * Lmc_1 / Lmc_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of completed steel reinforcement works
B	Excavation , Backfilling, and Aggregate base and sub-base courses	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.25 * F_1 / F_0 + 0.10 * Eqp_1 / Eqp_0 * E_1 / E_0 + 0.50\}$
C	Concrete Works	$P_1 = P_0 * \{0.45 * C_1 / C_0 + 0.15 * L_1 / L_0 + 0.10 * F_1 / F_0 + 0.30\}$ Applicable to the cost of concrete excluding the steel reinforcement price
D	Industrial Steel, steel beams and Air conditioning Ducts	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.70 * Lmb_1 / Lmb_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of Industrial Steel, steel beams and Air conditioning Ducts installed including Labor and workmanship.
E	Copper	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.70 * Cf_1 / Cf_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of copper installed including Labor and workmanship.
F -1	Aluminum Works including glass	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.10 * Ver_1 / Ver_0 * E_1 / E_0 + 0.60 * Alu_1 / Alu_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of Aluminum Works including glass installed including Labor and workmanship.
F-2	Aluminum Works excluding glass	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.70 * Alu_1 / Alu_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of Aluminum Works excluding glass installed including Labor and workmanship.
G	Ductile Iron Pipes	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.70 * Tf_1 / Tf_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of installed pipes
H	Steel Pipes	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.70 * Ta_1 / Ta_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of installed pipes
I	Pumps, Air Compressors, Hydraulic systems	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.70 * Pu_1 / Pu_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of installed pumps
J	GRP Pipes	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.14 * Rt_1 / Rt_0 * Yn_1 / Yn_0 + 0.28 * Gf_1 / Gf_0 * Yn_1 / Yn_0 + 0.43\}$ Applicable to the cost of installed pipes

K	Polyethylene Pipes	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.70 * Et_1 / Et_0 * Yn_1 / Yn_0 + 0.15\}$ Applicable to the cost of installed pipes
L	Bituminous Binder and Wearing Course prime and tack coat	$P_1 = P_0 * \{0.15 + 0.15 * L_1 / L_0 + 0.45 * [(1.12 * B_1 + 66) / (1.12 * B_0 + 66)] + 0.25 * F_1 / F_0\}$ when contract price is in USD
M	Electrical Works related to Buildings and similar	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.55 * Cf_1 / Cf_0 * E_1 / E_0 + 0.15 * Lma_1 / Lma_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of Electrical works completed and not supplied
N	Wood Works	$P_1 = P_0 * \{0.15 * L_1 / L_0 + 0.70 * Bo_1 / Bo_0 * E_1 / E_0 + 0.15\}$ Applicable to the cost of Wood Works installed including Labor and workmanship.

Where:

Alu_0 = "Aluminium Brut" index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Alu_1 = Weighted Average (Moyenne Pondérée) for "Aluminium Brut" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

B0 = Average price for "Bitumine 3.5 Pct" in American $ as per Platts Bulletin for the Calendar month in which the bid opening took place.

B1 = Weighted Average (Moyenne Pondérée) for "Bitumine 3.5 Pct" Average Price in American $ as per Platts Bulletin during the period of executed works included in the monthly statement.

Bo_0 = "BT18a – Menuiserie bois et sa quincaillerie intérieure y compris " index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Bo_1 = Weighted Average (Moyenne Pondérée) for "BT18a – Menuiserie bois et sa quincaillerie intérieure y compris" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

C_0 = Cement (Ciment en Vrac) ton Price as issued by the Cementeries on bid opening day.

C_1 = Weighted Average (Moyenne Pondérée) for the Cement (Ciment en Vrac) ton Price as issued by the Cementeries during the period of executed works included in the monthly statement.

Cf_0 = "Fils en cuivre ou alliage" index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Cf_1 = Weighted Average (Moyenne Pondérée) for "Fils en cuivre ou alliage" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

E_0 = Closing exchange rate for the Euro vs the contract currency as per the bulletin published by the Central Bank of Lebanon on bid opening date.

E_1 = Weighted Average (Moyenne Pondérée) closing exchange rate for the Euro vs the contract currency as per the bulletin published by the Central Bank of Lebanon, during the period of executed works included in the monthly statement.

Eqp_0 = Average for both "Machines agricoles françaises exportées" and "Véhicules utilitaires" Indices as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Eqp_1 = Weighted Average (Moyenne Pondérée) for "Machines agricoles françaises exportées" and "Véhicules utilitaires" Indices as issued by the french establishment INSEE during th e period of executed works included in the monthly statement.

Et_0 = "Polyethylene (high density)" index as issued by Bank of Japan, Research and Statistics Department for the Calendar month in which the bid opening took place.

Et_1 = Weighted Average (Moyenne Pondérée) for "Polyethylene (high density)" index as issued by Bank of Japan, Research and Statistics Department during the period of executed works included in the monthly statement.

F_0 = Gaz Oil (Mazout) Market Price as issued by the Ministry of Industry on bid opening day.

F_1 = Weighted Average (Moyenne Pondérée) Gaz Oil (Mazout) Market Price as issued by the Ministry of Industry during the period of executed works included in the monthly statement.

Gf_0 = "Glass fiber and Glass Fiber Products" index as issued by Bank of Japan, Research and Statistics Department for the Calendar month in which the bid opening took place.

Gf_1 = Weighted Average (Moyenne Pondérée) for "Glass fiber and Glass Fiber Products" index as issued by Bank of Japan, Research and Statistics Department during the period of executed works included in the monthly statement.

L_0 = Minimum monthly wage excluding any additional benefits i.e transportation, etc…, on bid opening day.

L_1 = Weighted Average (Moyenne Pondérée) monthly wage excluding any additional benefits i.e transportation, etc …, for the Calendar month during the period of executed works included in the monthly statement.

Lma_0 = "Fils en aciers non alliés de qualité" index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Lma_1 = Weighted Average (Moyenne Pondérée) for "Fils en aciers non alliés de qualité" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

Lmb_0 = "Petites barres rondes en aciers non alliés de qualité" index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Lmb_1 = Weighted Average (Moyenne Pondérée) for "Petites barres rondes en aciers non alliés de qualité" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

Lmc_0 = "Barres Crénelées ou nervurés pour béton armé" index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Lmc_1 = Weighted Average (Moyenne Pondérée) for "Barres Crénelées ou nervurés pour béton armé" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

P_0 = Price as shown in the Original Bill of Quantities P_1

= Adopted Price for contractor reimbursement.

Pu_0 = "Pompes, compresseurs et systèmes hydrauliques exportés" index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Pu_1 = Weighted Average (Moyenne Pondérée) for "Pompes, compresseurs et systèmes hydrauliques exportés" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

Rt_0 = "Thermosetting resins" index as issued Bank of Japan, Research and Statistics Department for the Calendar month in which the bid opening took place.

Rt_1 = Weighted Average (Moyenne Pondérée) for "Thermosetting resins" index as issued by Bank of Japan, Research and Statistics Department during the period of executed works included in the monthly statement.

Ta_0 = "Tubes en acier et accessoires" index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Ta_1 = Weighted Average (Moyenne Pondérée) for "Tubes en acier et accessoires" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

Tf_0 = "Pièces de fonderie en fonte" index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Tf_1 = Weighted Average (Moyenne Pondérée) for "Pièces de fonderie en fonte" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

Ver_0 = "Verre et articles en verre" index as issued by the french establishment INSEE for the Calendar month in which the bid opening took place.

Ver_1 = Weighted Average (Moyenne Pondérée) for "Verre et articles en verre" index as issued by the french establishment INSEE during the period of executed works included in the monthly statement.

Yn_0 = Closing exchange rate for the Yen vs the contract currency as per the bulletin published by the Central Bank of Lebanon on bid opening date.

Yn_1 = Weighted Average (Moyenne Pondérée) closing exchange rate for the Yen vs the contract currency as per the bulletin published by the Central Bank of Lebanon, during the period of executed works included in the monthly statement.

Construction items listed in the preamble of the BOQ are subject to price adjustment. In case a construction item includes more than one material/trade subject to price adjustment, then this item is subject to adjustment using the corresponding formulas for the major materials and applied to their respective shares in the unit price of this item.

Unit Price adjustment will be calculated up to five decimal places.

The price adjustment formulae shall apply on the monthly payment certificates and the cumulative increases "A" that occurred (or the cumulative decreases "B" that occurred) and shall be calculated on the value of the works in the successive monthly payment certificates, according to the following:

a) a price adjustment formula shall apply only if the amount of the cumulative increase (or the cumulative decrease) of an adjusted Contract price exceeds **3%** of the original contract amount "C".

b) when A>0.03C, indemnities for the increase of prices equivalent to A-0.03C shall be paid to the Contractor in the successive monthly payment certificates.

c) when B>0.03C, an amount equivalent to B-0.03C shall be deducted from the Contractor's monthly payment certificates, due to the decrease of prices.

d) the Employer has the right to recover any increase paid to the Contractor if the cumulative increase of an adjusted Contract price falls below 3% of the original contract amount; also the Employer has the obligation to return to the Contractor any deduction already applied on the monthly payment certificates, if the decrease falls below 3% of the original contract amount.

70.2 Subsequent Legislation

Delete Sub-Clause 70.2 and Substitute by the following:

" If, after the day 28 (twenty-eight) days prior to the latest date for submission of tenders for the Contract, there occur in Lebanon changes to any Law, Decree or Decision of the Council of Ministers which causes additional or reduced cost to the Contractor, in the execution of the Contract, such additional or reduced cost shall, after due consultation with the Contractor and approval of the Employer, be added to or deducted from the Contractor Price.
Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same shall already have taken into account in the indexing of any inputs to the Price Adjustment Formulae in accordance with the provisions of Sub-Clause 70.1."

Currency and Rates of Exchange

72.2 Currency Proportions

Delete Sub-Clause 72.2.

72.3 Currencies of Payment for Provisional Sums

Delete the words "Sub-Clauses 72.1 and 72.2" from the 4th line and Substitute the words "Sub-Clause 60.4".

72.4 Substantial Changes in Currency Requirements

Add the following new Sub-Clause 72.4:

"The foreign and local currency portions of the balance of the Contract Price if applicable to this contract shall be amended by agreement between the Employer and the Contractor to reflect any substantial changes in the expected foreign and local currency requirements of the Contractor during execution of the works provided that

(a) the Contractor shall inform the Employer and the Engineer whenever any such substantial change may occur; or

(b) the Engineer may recommend a review of such expected requirement if in his judgment there is evidence of a change in the country of origin of materials, Plant, or services to be provided under the Contract which should result in any substantial change of such expected requirements."

Additional Clauses Taxes, Duties and Shares

Add the following new Sub-Clauses: 73.1, 73.2, 73.3, 73.4, 74.1,75.1, 76.1, 77.1, 78.1, 79.1.

73.1 Foreign Taxation

The prices bid by the Contractor shall be deemed to include all taxes, duties and other charges imposed outside the Employer's country on the production, manufacture, sale and transport of the Contractor's Equipment, Plant, materials, and supplies to be used in or furnished under the Contract, and on the services performed under the Contract.

73.2 Local Taxation

The Prices bid by the Contractor shall include all taxes and duties except the VAT that may be levied in accordance with the laws and regulations in force as of the 28 days prior to the latest date set for submission of Bids, in the Republic of Lebanon on the Contractor's Equipment, Plant, materials and supplies (permanent, temporary and consumable) acquired for the purpose of the Contract and on the services performed under the Contract. Nothing in the Contract shall relieve the Contractor from his responsibility to pay any tax that may be levied in Lebanon in respect of the Contract. VAT shall be applicable separately according to Appendix 2.

73.3 Income Tax on Staff

The Contractor's staff, personnel and labor will be liable to pay personal income taxes in Lebanon in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

73.4 Duties on Contractor's Equipment

Notwithstanding the provisions of Sub-Clause 73.2, the Contractor's Equipment, including essential spare parts therefore, imported by the Contractor for the sole purpose of executing the Contract shall be temporarily exempt from the payment of import duties and taxes upon initial importation, provided the Contractor shall post with customs authorities at the port of entry an approved export bond or bank guarantee, valid until the time completion of the Contract plus six months, in an amount equal to the full import duties and taxes which would be payable on the assessed imported value of such Contractor's Equipment and spare parts, and callable in the event that the Contractor’s Equipment is not exported from the Employer's country on completion of the Contract. A copy of the bond or guarantee endorsed by the

customs authorities shall be provided by the Contractor to the Employer upon the importation of individual items of Contractor's Equipment and spare parts. Upon export of individual items of Contractor's Equipment and spare parts, or upon completion of' the Contract, the Contractor shall prepare, for approval by the customs authorities, an assessment of the residual value of the Contractor's Equipment and spare parts to be exported, based on the depreciation scale(s) and other criteria used by the customs authorities for such purposes under the provisions of the applicable law. Import duties and taxes shall be due and payable to customs authorities by the Contractor on (a) the difference between the initial imported value and the residual value of the Contractor's Equipment and spare parts to be exported; and
(b) on the initial imported value of that Contractor's Equipment and spare parts remaining in the Employer's country after completion of the Contract. Upon payment of such dues within 28 days of being invoiced, the bond or bank guarantee shall be reduced or released accordingly; otherwise the security shall be called in the full amount remaining.

Miscellaneous

74.1 Illegal Payments

If the Contractor, or any of his Subcontractors, agents or servants gives or offers to give to any person any payment, gift, gratuity or commission as an inducement or reward for doing or forbearing to do any action in relation to the Contract or any other contract with the Employer, or for showing or forbearing to show favor or disfavor to any person in relation to the Contract or to any other contract with the Employer, then the Employer may enter upon the Site and the Works and expel the Contractor and the provisions of Clause 63 hereof shall apply as if such entry and expulsion has been made pursuant to that Clause.

75.1 Termination of Contract for Employer's Convenience

The Employer shall be entitled to terminate this Contract at any time for the Employer's convenience after giving 56 days' prior notice to the Contractor, with a copy to the Engineer. In the event of such termination the Contractor

(a) shall proceed as provided in Sub-Clause 65.7; and
(b) shall be paid by the Employer as provided in Sub-Clause 65.8.

76.1 Restrictions on Eligibility

(a) Any Plant, materials, or services which will be incorporated in or required for the Works, as well as the Contractor's Equipment and other supplies, shall have their origin in any of the countries and territories eligible under the Lebanese Law and the funding agency guidelines.

(b) For the Purpose of this clause, "origin" means the place where the materials and equipment were mined, grown, produced, or manufactured, or from which the services are provided.

(c) The origin of Goods and services is distinct from the nationality of the Supplier.

77.1 Joint Venture and Several Liability

If the Contractor is a joint venture of two or more persons all such persons shall be jointly and severally bound to the Employer for the fulfillment of the terms of the Contract and shall designate one person to act as leader with authority to bind the joint venture. The composition or constitution of the joint venture shall not be altered without the consent of the Employer.

78.1 Details to be Confidential

The Contractor shall treat the details of the Contract as private and confidential, save insofar as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the previous consent in writing of the Employer or the Engineer. If any dispute arises as to the necessity of any publication or disclosure for the purposes of the Contract the same shall be referred to the Employer whose determination shall be final.

79.1 Safety, Health and Environmental Regulations

The Contractor shall comply with the requirements of CDR Safety, Health and Environmental Regulations. The regulations and requirements and specific measures and actions available to the Employer and the Engineer, including suspension of the Works or part of the Works and payment deductions set out in Clause 3 of these Regulations, in the event of non-compliance by the Contractor are included in Appendix 1 to these Conditions of Particular Application.

Conditions of Contract **Appendix 1**

Safety, Health and Environmental Regulations

Council for Development and Reconstruction
Beirut, Lebanon

Rev 3.1 Nov. 07

Appendix 1

Safety, Health and Environmental Regulations

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Preamble

PART I - General Safety, Health and Environmental Regulations

PART II - Supplementary Safety, Health and Environment Regulations

Preamble

The Safety, Health and Environmental Regulations are in two parts:

PART I - General Safety, Health and Environmental Regulations;

PART II - Supplementary Safety, Health and Environmental Regulations.

PART II shall have priority over PART I.

Part I

General Safety, Health and Environmental Regulations

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Annex 2 Sample Street Closure Permit

Annex 3 Sample Contractor's Site Check List

Part I

General Safety, Health and Environmental Regulations

1 Introduction

1.1 The prevention of injury and/or illness to site personnel and the public, damage to the Works and to public and private property, protection of the environment, and compliance with applicable laws, are primary objectives of CDR (the Employer). Because of the importance CDR places on meeting these objectives, selected minimum requirements are outlined in these Safety, Health and Environmental Regulations with which Contractors shall comply while working on CDR contracts. Given that these Regulations cannot cover every eventuality, the Contractor shall be expected to exercise good judgment in all such matters, even though not mentioned in these Regulations, and shall take any and all additional measures, as required or necessary, to meet his responsibility for safety, health and environmental matters during the period of the Contract.

CDR and its representatives shall not be held liable for any actions taken by the Contractor that are attributed to following the minimum requirements stated hereinafter.

1.2 The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

(a) have full regard for the safety of all persons on the Site and keep the Site and the Works in an orderly state appropriate to the avoidance of danger to any person;

(b) know and understand all laws governing his activities along with any site requirements and work site hazards. Such information shall be communicated by the Contractor to his personnel and subcontractors;

(c) take all necessary measures to protect his personnel, the Employer's personnel, other persons, the general public and the environment;

(d) 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 carrying out the Works.

(e) ascertain and comply with any regulations concerning noise, pollution and other nuisance in addition to the obligations imposed by the Conditions of Contract and by law.

(f) take necessary precautions to prevent nuisance from smoke, dust, rubbish, water, polluted effluent and other causes.

2 Compliance with Regulations

2.1 The Contractor shall comply with the requirements of these Safety, Health and Environmental Regulations and all other applicable regulations or requirements under Lebanese laws, laid down by relevant authorities or issued by the Employer or the Engineer concerning safety, health and the environment, in force or introduced or issued from time to time during the period of the Contract.

In so far as these Regulations are applicable, they shall apply to sites and personnel outside the Site associated with the performance of the Contract.

2.2 The Regulations equally apply to subcontractors and all other parties engaged by the Contractor and their personnel. The Contractor shall ensure all such parties are fully aware of and comply with the Regulations.

2.3 The Contractor shall comply with all notifications and written or verbal instruction regarding safety issued pursuant to these Regulations by the Employer, Engineer or relevant authorities within the time specified in the notification or instruction.

Whenever the Contractor is required to obtain the approval, agreement, permission, etc. of the Engineer, such approval, agreement, permission, etc. shall not relieve the Contractor of his responsibilities and obligations under these Regulations or the Contract.

2.4 The Contractor shall adopt a positive approach, awareness and responsibility towards safety, health and the environment, and take appropriate action, by:

(a) ensuring the Regulations are enforced and followed by the Contractor's personnel. Any failure by the Contractor's personnel to follow the Regulations, shall be regarded as a failure by the Contractor.

(b) paying attention to possible injury to unauthorized persons entering the site, particularly children.

2.5 Whenever in these Regulations the Contractor is required to provide test certificates for equipment and personnel or to comply the relevant authorities' requirements and no independent test facilities are available or no relevant authorities exist in Lebanon, the Contractor shall provide:

a) in lieu of independent test certificates:

- for equipment - details of the tests and the date of the tests that have been carried out by the Contractor and a written statement that the Contractor has satisfied himself that the item of equipment is fit and safe for use;

- for personnel - details of the training and experience and a written statement that the Contractor has satisfied himself that the person has the required level of competency;

b) in lieu of relevant authorities' requirements - details of the Contractor's own rules, regulations, requirements and procedures regarding safety, health and the environment.

If the Engineer is dissatisfied with the details provided by the Contractor, the Contractor shall provide further details or carry out further tests or provide further written statements as may be reasonably required by the Engineer.

When the Engineer has satisfied himself regarding the Contractor's own rules, regulations, requirements and procedures provided in accordance with (b) above, such rules, etc shall be deemed to form part of these Regulations and to which Clause 3 shall equally apply.

3 Failure to Comply with Regulations

3.1 General

3.1.1 Should the Contractor fail to comply with any of the Regulations or requirements:

(a) the Engineer may suspend the Works or part of the Works until the Contractor has taken necessary steps, to the satisfaction of the Engineer, to comply with the regulations or requirements.

(b) the Employer may, following written notice to the Contractor, carry out themselves or arrange for another contractor to carry out such measures as they consider appropriate on behalf of the Contractor. Any such actions by the Employer shall not affect or diminish the Contractor's obligations or responsibilities under the Contract.

(c) the Engineer may, following written notice to the Contractor, deduct from payments to the Contractor the amounts stipulated in Sub-Clause 3.2. Such notice shall specify:

(i) the nature of the failure or failures;

(ii) the period after the date of the notice within which the Contractor shall remedy each failure; and

(iii) the amount to be deducted.

Such suspension of payment will remain in force until such time as the Contractor has rectified the breach or breaches to the satisfaction of the Engineer. No interest shall be paid on the suspended payments.

3.1.2 Failure to comply with the Regulations or requirements shall be considered a breach of contract by the Contractor and may result in termination of the Contract by the Employer.

3.1.3 In the event of the Employer or Engineer taking action based on Sub-Clause 3.1.1(a) or (b) or 3.1.2, the Contractor shall not be entitled to any additional costs or extension to the Contract Completion Date.

3.1.4 All costs incurred by the Employer pursuant to Sub-Clause 3.1.1(b) and the deductions from payments imposed on the Contractor by the Engineer under Sub-Clause 3.1.1(c) shall be deducted from amounts otherwise due to the Contractor.

3.2 Deductions from Payments

3.2.1 Failures by the Contractor to comply with the Regulations or requirements are classified as follows:

D1 - breaches of Sub-Clause 5.6 (personal protective equipment);
D2 - breaches of Clause 7 (work in Public Areas);
D3 - breaches other than D1 and D2.

3.2.2 The basic deduction from payment for each classification in Sub-Clause 3.2.1, is as follows:

for D1 – USD 100/person/day;
for D2 – USD 500/location/day;
for D3 – USD 100/occurrence/day.
Limit of cumulative total deductions shall not exceed 1% of Contract price.

3.2.3 Deductions from payments will be applied as follows:

(a) for the first breach of each regulation or requirement - the basic deduction. If the same or similar breaches occur in different situations or locations at the same time, the Engineer may apply deductions for each situation or location; this will not apply to breaches related to personal protective equipment.

(b) for a second or subsequent breach of the same Regulation or requirement or failure to rectify a previous failure within the time specified by the Engineer - twice the basic deduction.

4 General Requirements

4.1 Preamble

4.1.1 All references to safety shall be deemed to include health and the environment.

4.2 Safety Officer

4.2.1 The Contractor shall appoint a competent Safety Officer who shall be responsible for safety, health and the environment. The Safety Officer shall be given sufficient time by the Contractor to carry out his duties; minimum requirements shall be as follows:

Workforce on Site of over 250-	full time Safety Officer;
Workforce on Site of 100-250 -	50% of Safety Officer's time;
Workforce on Site below 100 -	as required for the Works but a minimum of 5 hours per week of Safety Officer's time where more than 20 workers.

4.2.2 The Contractor shall provide the Safety Officer with appropriate identification, including a white hard hat with red cross symbol and an identification badge. The appointment of the Safety Officer shall be in writing and copied to the Engineer. The appointment shall include specific instructions to enforce these Regulations and delegated authority to take any action, measure or to issue instructions regarding their enforcement. All persons on Site shall be made aware of the name and authority of the Safety Officer and instructed to comply with any instruction or direction on safety matters, verbal or in writing, issued by the Safety Officer.

4.2.3 The Safety Officer shall be provided with a mobile phone or other similar means of communication. The Safety Officer shall be accessible and available at all times including outside normal working hours.

4.3 Safety Training

4.3.1 The Contractor shall provide safety induction training for all site personnel upon starting on site.

4.3.2 The Contractor shall provide safety refresher/reinforcement training at regular intervals for his staff.

4.4 Safety Meetings

4.4.1 The Contractor shall hold regular safety meetings to provide safety instructions and receive feedback from site personnel on safety, health and environmental matters. A

weekly Safety Meeting shall be chaired by the Safety Officer and minutes shall be taken of the meeting. The meeting/minutes shall cover all relevant issues including actions to be taken. A copy of the minutes shall be given to the Engineer. The Safety Officer should attend the Contractor's weekly site meetings and "Safety" should be an item on the agenda.

4.5 Safety Inspections

4.5.1 The Safety Officer shall make regular safety inspections of the work site. The Safety Officer shall prepare a report of each inspection. This report shall include details of all breaches of these Regulations and any other matters or situations relating to safety found during the inspection, instructions issued by the Safety Officer and actions taken by the Contractor. A copy of the Safety Officer's inspection reports shall be given to the Engineer.

4.6 Control of Substances Hazardous to Health

4.6.1 Hazardous materials shall be stored in approved safety containers and handled in a manner specified by the manufactures and/or prescribed by relevant Authorities (see Sub-Clause 2.5).

4.6.2 Only properly trained and equipped personnel shall handle hazardous materials.

4.7 Potential Hazards

4.7.1 The Contractor shall inform employees of potential hazards, take appropriate steps to reduce hazards and be prepared for emergency situations.

4.7.2 The Contractor shall make an assessment of every operation involving hazardous substances. The assessment shall be recorded on a Hazardous and Flammable Substances Assessment Method Statement which shall be submitted to the Engineer prior to the delivery and use of the substance on Site.

4.8 Accident Reporting

4.8.1 The Contractor shall report all accidents and dangerous occurrences to the Engineer. The Contractor shall prepare a report on each accident or dangerous occurrence and a copy of the report, together with witness statements and any other relevant information, shall be submitted to the Engineer. A reportable accident or dangerous occurrence shall include any accident to any person on Site requiring medical attention or resulting in the loss of working hours or any incident that resulted, or could have resulted, in injury, damage or a danger to the Works, persons, property or the environment.

4.8.2 In the event of an accident or dangerous occurrence, the Contractor shall be responsible for completing all statutory notifications and reports. Copies of all statutory notifications and reports shall be passed to the Engineer.

4.8.3 All accidents and dangerous occurrences shall be recorded in a Site Accident Book. The Site Accident Book shall be available at all times for inspection by the Engineer.

4.8.4 The Contractor shall immediately rectify any situation or condition that could result in injury, damage or a danger to the Works, person, property or the environment. If the situation or condition cannot be corrected immediately, the Contractor shall provide temporary barriers and appropriate warning signs and devices and/or take other appropriate action necessary for the protection of persons, property and the environment.

4.9 Notices, Signs, Etc.

4.9.1 All safety, health, environmental and other notices and signs shall be clearly displayed and written in both Arabic and either English or French. All requirements, instructions, procedures, etc. issued by the Contractor concerning these Regulations shall be printed in both Arabic and English and displayed and readily available to Contractor's personnel.

4.10 First Aid and Medical Attention

4.10.1 The Contractor shall have comprehensive First Aid Kit(s) on Site at all times. First Aid Kits shall be conveniently located and clearly identifiable.

4.10.2 The Contractor shall have one employee on site trained in first aid for every 25 employees. Such persons shall be provided with appropriate identification, including a red hard hat with a white "red cross" symbol and an identification badge.

4.10.3 The Contractor shall make contingency arrangements for calling a Doctor and transporting injured persons to hospital. The telephone numbers of the emergency services and the name, address and telephone number of the Doctor and nearest hospital shall be prominently displayed in the Contractor's site office.

4.11 Employee Qualifications and Conduct

4.11.1 The Contractor shall employ only persons who are fit, qualified and skilled in the work to be performed. All persons shall be above the minimum working age.

4.11.2 Contractor's personnel shall use the toilet facilities provided by the Contractor.

4.11.3 The Contractor shall ensure:

(a) that no firearms, weapons, controlled or illegal substances or alcoholic beverages are brought onto the Site and that no personnel under the influence of alcohol or drugs are permitted on Site.

(b) that all personnel obey warning signs, product or process labels and posted instructions.

(c) that drivers or operators of vehicles, machinery, plant and equipment follow the rules for safe operations. Drivers shall wear seat belts and obey all signs and posted speed limits.

4.12 Security

4.12.1 The Contractor shall take all measures necessary, including watching and lighting at night, to prevent unauthorized entry to the Site and to safeguard the Site, the Works, materials, Plant, Contractor's Equipment and Temporary Works against damage from trespass and theft.

5 Safety Requirements

5.1 Personal Protective Equipment

5.1.1 The Contractor shall provide personal protective equipment, including hard hats, safety glasses, respirators, gloves, safety shoes, and such other equipment as required, and shall take all measures or actions for the protection and safety of Contractor's personnel.

5.1.2 Non-metallic hard hats shall be worn at all times by all personnel at the worksite with the exception of those areas where the Engineer has indicated it is not necessary to do so.

5.1.3 Safety glasses shall meet international standards and be available for use and worn in specified worksite areas. As a minimum, safety glasses shall be worn for the following types of work: hammering, chipping, welding, grinding, use of electrically powered or pneumatic equipment, insulation handling, spray painting, working with solvents, and other jobs where the potential of an eye injury exists. Face shields and/or mono-goggles shall be worn where possible exposure to hazardous chemicals, cryogenic fluids, acids, caustics, or dust exists and where safety glasses may not provide adequate protection.

5.1.4 When handling acids, caustics, and chemicals with corrosive or toxic properties, suitable protection, such as acid suits or chemical resistant aprons and gloves, shall be worn to prevent accidental contact with the substance.

5.1.5 Personnel shall not be permitted to work whilst wearing personal clothing or footwear likely to be hazardous to themselves or others.

5.1.6 The wearing of safety shoes with steel reinforced toes is recommended for all Contractor's personnel on site. In all cases, Contractor's personnel shall wear substantial work shoes that are commensurate with the hazards of the work and the worksite area.

5.1.7 Hearing protection, including muffs, plugs or a combination thereof, shall be provided for all personnel operating in areas where the noise level exceeds 90 decibels. Such protection shall also be provided for operators working with equipment exceeding such a level. This may include equipment such as excavators, shovels, jackhammers, saws, drills, grinders, and the like are being used.

5.1.8 The Contractor shall encourage employees to wear substantial work gloves whenever practical and safe to do so.

5.2 Fire Protection and Prevention

5.2.1 The Contractor shall take all necessary measures to prevent personal injury or death or damage to the Works or other property, including but not limited to

(a) provision of firefighting facilities in all vulnerable areas and as instructed by the Engineer
(b) marking escape routes and illuminating them if necessary
(c) instructing workmen in fire precautions and use of firefighting equipment
(d) displaying notices on fire safety and procedures in the event of a fire on Site.

5.2.2 The Contractor shall comply with fire protection instructions given by the Authorities having jurisdiction in regard to fire protection regulations.

5.2.3 The Contractor shall, upon moving on site, provide to the Engineer and the Authorities a fire prevention and evacuation plan. This shall include drawing(s) showing the fire assembly points. The fire prevention and evacuation plan and drawing(s) shall be updated from time to time as the Works progress. The Contractor shall ensure all personnel are fully informed on escape routes and assembly points and any changes thereto.

5.2.4 Fuel storage will not be permitted in construction work areas. Contractors may establish fuel storage tanks in special areas set aside for the purpose and approved by the Engineer. Storage tanks shall be adequately bounded to control spillage. Fire extinguishers shall be provided and installed in a suitable nearby location.

5.2.5 Highly combustible or volatile materials shall be stored separately from other materials and as prescribed by relevant authorities and under no circumstances within buildings or structures forming part of the permanent Works. All such materials shall be protected and not exposed to open flame or other situations which could result in a fire risk.

5.2.6 No combustible site accommodation shall be located inside or within 10 meters of a building or structure forming part of the permanent Works, where units have to be used in these circumstances, they shall be constructed of non-combustible materials and

have a half-hour fire rating inside to outside and outside to inside. Non-combustible furniture shall be used where practical.

5.2.7 All temporary accommodation and stores shall be provided with smoke detectors and fire alarms.

5.2.8 Smoking shall be banned in high-risk areas.

5.2.9 Expanded polystyrene with or without flame retarding additive, polythene, cardboard and hardboard shall not be used as protection materials.

5.2.10 Plywood and chipboard shall only be used as protection on floors. Vertical protection shall be non-combustible. Debris netting and weather protection sheeting shall be fire retardant.

5.2.11 When using cutting or welding torches or other equipment with an open flame, the Contractor shall provide a fire extinguisher close by at all times. All flammable material shall be cleared from areas of hot works, or work locations prior to welding or oxy/gas burning operations. All hot works shall cease half an hour before the end of a work shift to allow for thorough checking for fires or smoldering materials. Where appropriate, areas of hot works are to be doused in water before the shift ends.

5.2.12 An adequate number of fire extinguishers of types suited to the fire risk and the materials exposed shall be provided. These shall be placed in accessible, well-marked locations throughout the job site. Contractor's personnel shall be trained in their use. Extinguishers shall be checked monthly for service condition and replaced or recharged, as appropriate after use.

5.2.13 Only approved containers shall be used for the storage, transport and dispensing of flammable substances. Portable containers used for transporting or transferring gasoline or other flammable liquids shall be approved safety cans.

5.2.14 Fuel burning engines shall be shut off while being refueled

5.2.15 Adequate ventilation to prevent an accumulation of flammable vapors shall be provided where solvents or volatile cleaning agents are used.

5.2.16 Flammables shall not be stored under overhead pipelines, cable trays, electrical wires, or stairways used for emergency egress.

5.2.17 Paints shall be stored and mixed in a room assigned for the purpose. This room shall be kept under lock and key.

5.2.18 Oily waste, rags and any other such combustible materials shall be stored in proper metal containers with self-closing lids and removed every night to a safe area or off site. Every precaution shall be taken to prevent spontaneous combustion.

5.3 Electrical Safety

5.3.1 All temporary electrical installations, tools and equipment shall comply with current regulations dealing with on-site electrical installations.

5.3.2 The Contractor shall establish a permit-to-work system for work on or in proximity to energized circuits of any voltage. Contractor's personnel shall not commence work on such circuits unless a permit to work has been issued and adequate safety measures have been taken and the work operation has been reviewed and approved by the Engineer.

5.3.3 Only authorized personnel shall be allowed to work or repair electrical installations and equipment.

5.3.4 Portable tools and equipment shall be 220 volts, unless otherwise agreed by the Engineer.

5.3.5 When portable or semi-mobile equipment operates at voltages in excess of 110 volts, the supply shall be protected by a Residual Current Device (RCD) regardless of any such device fitted to the equipment. The RCD must have a tripping characteristic of 30 milliamps at 30 milliseconds maximum.

5.3.6 All static electrically powered equipment, including motors, transformers, generators, welders, and other machinery, shall be properly earthed, insulated, and/or protected by a ground fault interruption device. In addition, the skin of metal buildings and trailers with electric service shall be earthed. Metal steps, when used, shall be securely fixed to the trailer.

5.3.7 Lamp holders on festoon lighting shall be molded to flexible cable and be of the screw in type. Clip on guards shall be fitted to each lamp unit.

5.3.8 All tungsten-halogen lamps shall be fitted with a glass guard to the element. These lamps must be permanently fixed at high level.

5.3.9 Electrical equipment shall be periodically inspected and repaired as necessary by competent persons.

5.3.10 Any work on electrical equipment and systems shall be made safe through locking, tagging, and/or isolation of the equipment before work commences. Prior to the start of the work, the equipment or systems shall be tested to insure that they have been properly de-energized and isolated.

5.3.11 Electrical repair work on energized systems shall be avoided whenever possible.

5.3.12 Electrical troubleshooting shall be conducted only after getting written approval of the Engineer.

5.3.13 Unauthorized personnel shall not enter enclosures or areas containing high voltage equipment such as switchgear, transformers, or substations.

5.4 Oxygen/Acetylene/Fuel Gases/Cartridge Tools

5.4.1 Compressed oxygen shall never be used in the place of compressed air.

5.4.2 Flash-back (Spark) arrestors shall be fitted to all gas equipment.

5.4.3 Liquid Petroleum Gas (LPG) cylinders shall not be stored or left in areas below ground level overnight. Cylinders must be stored upright.

5.4.4 The quantity of oxygen, acetylene and LPG cylinders at the point of work shall be restricted to a maximum of one day's supply. Cylinders shall be kept in upright vertical rack containers or be safely secured to a vertical support.

5.4.5 Cartridge tools shall be of the low velocity type. Operators must have received adequate training in the safe use and operation of the tool to be used.

5.5 Scaffolding/Temporary Works

5.5.1 No aluminum tube shall be used, except for proprietary mobile towers, unless otherwise agreed with the Engineer.

5.5.2 Drawings and calculations shall be submitted to the Engineer, prior to commencement of work on site, for all Temporary Works, including excavations, falsework, tower cranes, hoists, services and scaffolding. Design shall conform to international standards.

5.5.3 The Engineer will not approve Temporary Work designs but the Contractor shall take account of any comments on such designs made by the Engineer.

5.5.4 The Contractor shall inspect and approve all Temporary Works after erection and before access, loading or use is allowed. Completed and approved Temporary Works shall be tagged with a scaff-tag or similar safety system and the Safe Structure insert displayed. For scaffolding, one tag shall be displayed every 32 m2 of face area. A central record system shall be kept on all Temporary Work. Temporary Works shall be inspected weekly and similarly recorded.

5.5.5 All mobile scaffold towers shall be erected in accordance with the manufacture's instructions and a copy of these shall be submitted to the Engineer prior to any use on site. Additionally, all towers shall be erected complete with access ladder, safety rails and kick boards whatever the height.

5.5.6 The Contractor shall repair or replace, immediately, any scaffold including accessories, damaged or weakened from any cause.

5.5.7 The Contractor shall ensure that any slippery conditions on scaffolds are eliminated as soon as possible after they occur.

5.5.8 All scaffolds used for storing materials, for brick or block laying, for access to formwork or for any other purpose where materials may accidentally fall, shall be provided with wire mesh guards or guards of a substantial material, in addition to kick boards.

5.6 Use of Ladders

5.6.1 Manufactured ladders shall meet the applicable safety codes for wood or metal ladders. Metal ladders shall not be used where there is any likelihood of contract with electric cables and equipment. All metal ladders shall be clearly marked: "Caution - Do not use around electrical equipment".

5.6.2 Job made ladders shall not be permitted.

5.6.3 Extension or straight ladders shall be equipped with non-skid safety feet, and shall be no more than 12 m in height. The maximum height of a stepladder shall be 2 m. Ladders shall not be used as platforms or scaffold planks.

5.6.4 Ladders rungs and steps shall be kept clean and free of grease and oil.

5.6.5 Extension and straight ladders shall be tied off at the top and/or bottom when in use. Only one person shall be allowed on a ladder at a time.

5.6.6 Defective ladders shall be taken out of service and not used. Ladders shall not be painted and shall be inspected for defects prior to use.

5.7 Elevated Work

5.7.1 The Contractor shall provide all personnel, while working at an elevated position, with adequate protection from falls. Details of such protection shall be submitted to and approved by the Engineer.

5.7.2 The Contractor shall carry out daily inspections of all elevated work platforms. Defects shall be corrected prior to use.

5.7.3 Roofing & Sheet Material Laying

(a) A Method Statement detailing the procedures to be adopted shall be submitted to and agreed with the Engineer prior to commencement of work on site.

(b) Mobile elevating work platforms or the equivalent shall be used to install roofing and sheet materials wherever practicable and a suitable base is available.

5.7.4 Erection of Structures

(a) A Method Statement detailing the procedures to be adopted shall be submitted and agreed with the Engineer prior to commencement of work on site.

(b) Safety harnesses and lines shall be provided by the Contractor for use by the erection personnel and worn at all times.

(c) Mobile elevating work platforms or the equivalent shall be used to erect structures wherever practicable and a suitable base is available.

5.7.5 Mobile Elevating Work Platforms

Operators shall be trained in the safe use of such platforms and hold a current Certificate of Competence (see Sub-Clause 2.5).

5.7.6 Hoists

(a) A copy of the current Test Certificate (see Sub-Clause 2.5) shall be submitted to the Engineer before any hoist (personnel or material) is brought into operation on the site. Where the range of travel is increased or reduced a copy of the revised Test Certificate shall be submitted.

(b) Each landing gate shall be fitted with a mechanical or electrical interlock to prevent movement of the hoist when any such gate is in the open position.

(c) Safety harnesses must be worn and used by personnel erecting, altering and dismantling hoists.

5.7.7 Suspended Cradles

(a) Suspended cradles shall be installed, moved and dismantled by a specialist contractor.

(b) Suspended cradles shall comply with local regulations.

(c) All powered suspended cradles shall incorporate independent safety lines to overspeed braking devices and independent suspension lines for personal safety harness attachment.

5.8 Use of Temporary Equipment

5.8.1 The safe design capacity of any piece of equipment shall not be exceeded, nor shall the equipment be modified in any manner that alters the original factor of safety or capacity.

5.8.2 Mobile equipment shall be fitted with suitable alarm and motion sensing devices, including backup alarm, when required.

5.8.3 The Contractor shall ensure that the installation and use of equipment are in accordance with the safety rules and recommendations laid down by the manufacturer, taking into account the other installations already in place or to be installed in the future.

5.8.4 The Contractor shall inspect Equipment prior to its use on the Works and periodically thereafter to ensure that it is in safe working order. Special attention shall be given to such items as cables, hoses, guards, booms, blocks, hooks and safety devices. Equipment found to be defective shall not be used and immediately removed from service, and a warning tag attached.

5.8.5 Natural and synthetic fiber rope made of material such as manila, nylon, polyester, or polypropylene shall not be used as slings if approved by the Engineer.

5.8.6 Only trained, qualified and authorized personnel shall operate equipment. All drivers and operators shall hold a current Certificate of Training Achievement for the equipment being used (see Sub-Clause 2.5).

5.8.7 A safety observer shall be assigned to watch movements of heavy mobile equipment where hazards may exist to other personnel from the movement of such equipment, or where equipment could hit overhead lines or structures. The observer shall also ensure that people are kept clear of mobile equipment and suspended loads.

5.8.8 When mobile or heavy equipment is traveling onto a public thoroughfare or roadway, a flagman shall insure that traffic has been stopped prior to such equipment proceeding. While the mobile or heavy equipment is traveling on a public roadway, a trailing escort vehicle with a sign warning of a slow-moving vehicle that is dangerous to pass shall be provided.

5.8.9 Cranes:

(a) The Contractor shall give a minimum of 48 hours' notice to the Engineer prior to bringing a mobile crane on site.

(b) No cranes shall be erected on the site without the prior approval of the Engineer. The Engineer may direct the Contractor as to locations where cranes may not be located. The Contractor shall take such directions into account when submitting his proposals for crane location points, base footings, pick up points and swing

radius. Compliance with any such direction shall not entitle the Contractor to any extension of the Period of Completion or to any increase in the Contract Price.

(c) Safety harnesses shall be worn and used at all times by personnel engaged on the erection, alterations and dismantling of tower cranes.

(d) The Contractor shall provide a copy of the current Test Certificate (see Sub-Clause 2.5) to the Engineer before any crane (tower or mobile) is brought into operation on the Site.

(e) All lifting tackle must hold a current Test Certificate (see Sub-Clause 2.5). All lifting tackle must be thoroughly examined every 6 months and an inspection report raised.

(f) All fibrous/web slings shall be destroyed and replaced 6 months after first use.

(g) All crane drivers/operators shall hold a Certificate of Training Achievement for the class of crane operated (see Sub-Clause 2.5).

(h) All banksmen/slingers shall hold a Training Certificate from a recognized training agency (see Sub-Clause 2.5).

(i) Only certified slingers/banksmen shall sling loads or guide crane/load movement.

(j) The maximum weekly working hours of a crane driver or banksman shall be restricted to 60 hours.

(k) Under no circumstances, shall a crane or load come within 4 m of any energized overhead power line or other critical structure.

5.9 Locking-out, Isolating, and Tagging of Equipment

5.9.1 Equipment that could present a hazard to personnel if accidentally activated during the performance of installation, repair, alteration, cleaning, or inspection work shall be made inoperable and free of stored energy and/or material prior to the start of work. Such equipment shall include circuit breakers, compressors, conveyors, elevators, machine tools, pipelines, pumps, valves, and similar equipment.

5.9.2 Where equipment is subject to unexpected external physical movement such as rotating, turning, dropping, falling, rolling, sliding, etc., mechanical and/or structural constraints shall be applied to prevent such movement.

5.9.3 Equipment which has been locked-out, immobilized, or taken out of service for repair or because of a potentially hazardous condition shall be appropriately tagged indicating the reason it has been isolated and/or taken out of service.

5.9.4 Where safety locks are used for locking out or isolating equipment, the lock shall be specially identified and easily recognized as a safety lock.

5.10 Installation of Temporary or Permanent Equipment

5.10.1 During installation and testing the Contractor's specialist engineer shall be in attendance.

5.10.2 All control mechanism panel and wiring diagrams shall be available and printed in both Arabic and either English or French.

5.11 Laser Survey Instruments

5.11.1 Details of the types and use of laser instruments shall be submitted and agreed with the Engineer.

5.12 Working in Confined Spaces

5.12.1 Confined spaces, including tanks, vessels, containers, pits, bins, vaults, tunnels, shafts, trenches, ventilation ducts, or other enclosures where known or potential hazards may exist, shall not be entered without prior inspection by and authorization from the Site Safety Officer and the issuance of a Hazardous Work Permit.

5.12.2 Prior to entering the confined space, the area shall be completely isolated to prevent the entry of any hazardous substances or materials which could cause an oxygen deficient atmosphere. All equipment that could become energized or mobilized shall be physically restrained and tagged. All lines going into the confined space shall be isolated and/or blanked.

5.12.3 Personnel working in a confined space where emergency escape or rescue could be difficult, shall wear a safety harness attached to a lifeline.

5.12.4 A qualified attendant(s), trained and knowledgeable in job-related emergency procedures, shall be present at all times while persons are working within the confined space. The attendant shall be capable of effecting a rescue, have necessary rescue equipment immediately available, and be equipped with at least the same protective equipment as the person making entry.

5.12.5 All equipment to be used in a confined space shall be inspected to determine its acceptability for use. Where a hazard from electricity may exist, equipment utilized shall be of low voltage type.

5.12.6 The atmosphere within the confined space shall be tested to determine it is safe to enter. Acceptable limits are:

- oxygen: 19.5% lower, 22% higher;
- flammable gas: not to exceed 10% of lower explosion limit;
- toxic contaminants: not to exceed the permissible exposure limit.

Subsequent testing shall be done after each interruption and before re-entering the confined space, as well as at intervals not exceeding 4 hours. Continuous monitoring is preferable and may be necessary in certain situations.

5.12.7 Adequate ventilation shall be provided to ensure the atmosphere is maintained within acceptable limits.

5.13 Demolition

5.13.1 A detailed Method Statement detailing the demolition procedures/techniques to be used shall be submitted to and approved by the Engineer prior to commencement of work on site.

The Method Statement must include full details of measures to be taken to ensure that there are no persons remaining in the building/structure and to distance members of the public and Contractor's personnel from the building/structure prior to demolition.

5.14 Use of Explosives

5.14.1 The Contractor shall not use explosives without the written permission from the Engineer and relevant authorities (see Sub-Clause 2.5).

5.14.2 The Contractor shall observe all regulations regarding proper purchasing, transportation, storage, handling and use of explosives.

5.14.3 The Contractor shall ensure that explosives and detonators are stored in separate special buildings. These secured buildings shall be constructed, located and clearly marked in Arabic and English:

"DANGER - EXPLOSIVES"

all as approved by the Engineer and relevant authorities (see Sub-Clause 2.5).

5.14.4 The Contractor shall ensure that all possible precautions are taken against accidental fire or explosion, and ensure that explosives and detonators are kept in a proper and safe condition.

5.14.5 The Contractor shall ensure that explosives and detonators are always transported in separate vehicles and kept apart until the last possible moment and that metallic tools are not used to open boxes of explosives or detonators.

5.14.6 Blasting Procedure: The Contractor shall carry out blasting operations in a manner that will not endanger the safety of persons and property. The Contractor shall, along with other necessary precautions:

(a) clear all persons from buildings and the area affected by the blasting. All such persons shall be given adequate notice of the actual time and date of blasting,

(b) ensure that police and other local authorities are kept fully informed, in advance, of the blasting programme so that they may be present when blasting takes place if they so require,

(c) erect warning notices around the area affected that blasting operations are in progress,

(d) carry out a thorough search of buildings and the area affected prior to blasting,

(e) ensure that blasting is only carried out by experienced shot firers. Priming, charging, stemming and shot firing shall be carried out with greatest regard for safety and in strict accordance with the rules and regulations of the relevant authorities (see Sub-Clause 2.5).

(f) ensure that explosive charges are not excessive, charged boreholes are properly protected and proper precautions are taken for the safety of persons and property,

5.14.7 The Contractor shall maintain an up-to-date inventory of all explosives and explosive devices and shall submit a monthly report to the Engineer, detailing the use of all explosives by date and location.

5.15 Excavation and Trenching

5.15.1 An excavation permit signed by the Engineer must be issued before excavation proceeds in any work location. The Contractor shall investigate and identify the location of existing services by study of the drawings, a visual/physical study of the site, sweeping by appropriate detection equipment and where necessary hand excavation of trial holes.

Following this investigation, the Contractor shall submit a written request for an excavation permit to the Engineer.

The Engineer will return the permit signed and dated to indicate:

- services which are to be maintained.
- services which are to be isolated.
- any special precautions to be taken.

A sample Excavation Permit is given in Appendix 1.

5.15.2 The issue of an Excavation Permit by the Engineer shall not relieve the Contractor of his responsibilities under the Contract.

5.15.3 The side of all excavations and trenches exceeding 1.3 meters in depth which might expose personnel or facilities to danger resulting from shifting earth shall be protected by adequate temporary supports or sloped to the appropriate angle of repose.

5.15.4 All excavations, slopes and temporary supports shall be inspected daily and after each rain, before allowing personnel to enter the excavation.

5.15.5 Excavations 1.3 meters or more in depth and occupied by personnel shall be provided with ladders as a means for entrance and egress. Ladders shall extend not less than 1 meter above the top of the excavation.

5.15.6 The Contractor shall provide adequate barrier protection to all excavations. Barriers shall be readily visible by day or night.

5.15.7 Excavated or other materials shall not be stored at least 0.65 meters from the side of excavations.

5.15.8 The Contractor shall:

(a) ensure that stability and structural integrity of the Works are maintained during construction and shall provide temporary supports where necessary and shall not overload any part of the Works with materials, Plant or Contractor's Equipment.

(b) provide and maintain during the execution of the Works all shoring, strutting, needling and other supports as may be necessary to preserve stability of buildings, whether new or existing, on the site or adjoining property that may be endangered or affected by the Works.

(c) submit to the Engineer an outline of the methods proposed to be used for the support necessary to preserve stability of buildings or other structures, together with the relevant drawings, details, calculations, specifications and subsoil investigation, as necessary for approval. Such approval shall not pass to the Employer or the Engineer the responsibility for maintaining the stability of the buildings or relieve the Contractor from his responsibility.

5.16 Concrete Reinforcement Starter Bars

5.16.1 The Contractor shall ensure concrete reinforcement starter bars are not a danger to personnel. Where permitted by the Engineer, starter bars shall be bent down.

Alternatively, the starter bars shall be protected using either hooked starters, plastic caps, plywood covers or other methods agreed with the Engineer.

6 Environmental and Health Requirements

6.1 Protection of the Environment

6.1.1 The Contractor shall be knowledgeable of and comply with all environmental laws, rules and regulations for materials, including hazardous substances or wastes under his control. The Contractor shall not dump, release or otherwise discharge or dispose of any such material without the authorization of the Engineer.

6.1.2 Any release of a hazardous substance to the environment, whether air, water or ground, must be reported to the Engineer immediately. When releases resulting from Contractor action occur, the Contractor shall take proper precautionary measures to counter any known environmental or health hazards associated with such release. These would include remedial procedures such as spill control and containment and notification of the proper authorities.

6.2 Air Pollution

6.2.1 The Contractor, depending on the type and quantity of materials being used, may be required to have an emergency episode plan for any releases to the atmosphere. The Contractor shall also be aware of local ordinances affecting air pollution.

6.2.2 The Contractor shall take all necessary measures to limit pollution from dust and any windblown materials during the Works, including damping down with water on a regular basis during dry climatic conditions.

6.2.3 The Contractor shall ensure that all trucks leaving the Site are properly covered to prevent discharge of dust, rocks, sand, etc.

6.3 Water Pollution

6.3.1 The Contractor shall not dispose of waste solvents, petroleum products, toxic chemicals or solutions in the city drainage system or watercourse, and shall not dump or bury garbage on the Site. These types of waste shall be taken to an approved disposal facility regularly, and in accordance with requirements of relevant Authorities. The Contractor shall also be responsible to control all run-offs, erosion, etc.

6.4 Solid Waste

6.4.1 General Housekeeping

(a) The Contractor shall maintain the site and any ancillary areas used and occupied for performance of the Works in a clean, tidy and rubbish-free condition at all times.

(b) Upon the issue of any Taking-Over Certificate, the Contractor shall clear away and remove from the Works and the Site to which the Taking-Over Certificate relates, all Contractor's Equipment, surplus material, rubbish and Temporary Works of every kind, and leave the said Works and Site in a clean condition to the satisfaction of the Engineer. Provided that the Contractor shall be entitled to retain on Site, until the end of the Defects Liability Period, such materials, Contractor's Equipment and Temporary Works as are required by him for the purpose of fulfilling his obligations during the Defects Liability Period.

6.4.2 Rubbish Removal and Disposal

(a) The Contractor shall comply with statutory and municipal regulations and requirements for the disposal of rubbish and waste.

(b) The Contractor shall provide suitable metal containers for the temporary storage of waste.

(c) The Contractor shall remove rubbish containers from site as soon as they are full. Rubbish containers shall not be allowed to overflow.

(d) The Contractor shall provide hardstandings for and clear vehicle access to rubbish containers.

(e) The Contractor shall provide enclosed chutes of wood or metal where materials are dropped more than 7 meters. The area onto which the material is dropped shall be provided with suitable enclosed protection barriers and warning signs of the hazard of falling materials. Waste materials shall not be removed from the lower area until handling of materials above has ceased.

(f) Domestic and biodegradable waste from offices, canteens and welfare facilities shall be removed daily from the site.

(g) Toxic and hazardous waste shall be collected separately and be disposed of in accordance with current regulations.

(h) No waste shall be burnt on Site unless approved by the Engineer.

6.4.3 Asbestos Handling and Removal

The Contractor shall comply with all local regulations regarding the handling of asbestos materials. In the absence of local regulations, relevant International Standards shall apply.

6.4.5 Pest Control

The Contractor shall be responsible for rodent and pest control on the Site. If requested, the Contractor shall submit to the Engineer, for approval, a detailed programme of the measures to be taken for the control and eradication of rodents and pests.

6.5 Noise Control

6.5.1 The Contractor shall ensure that the work is conducted in a manner so as to comply with all restrictions of the Authorities having jurisdiction, as they relate to noise.

6.5.2 The Contractor shall, in all cases, adopt the best practicable means of minimizing noise. For any particular job, the quietest available plant/and or machinery shall be used. All equipment shall be maintained in good mechanical order and fitted with the appropriate silencers, mufflers or acoustic covers where applicable. Stationary noise sources shall be sited as far away as possible from noise-sensitive areas, and where necessary acoustic barriers shall be used to shield them. Such barriers may be proprietary types, or may consist of site materials such as bricks or earth mounds as appropriate.

6.5.3 Compressors, percussion tools and vehicles shall be fitted with effective silencers of a type recommended by the manufacturers of the equipment. Pneumatic drills and other noisy appliances shall not be used during days of rest or after normal working hours without the consent of the Engineer.

6.5.4 Areas where noise levels exceed 90 decibels, even on a temporary basis, shall be posted as high noise level areas.

6.6 Protection of Archaeological and Historical Sites

6.6.1 Excavation in sites of known archaeological interest should be avoided. Where this is unavoidable, prior discussions must be held with the Directorate of Antiquities in order to undertake pre-construction excavation or assign an archaeologist to log discoveries as construction proceeds. Where historical remains, antiquity or any other object of cultural or archaeological importance are unexpectedly discovered during construction in an area not previously known for its archaeological interest, the following procedures should be applied:

a) Stop construction activities.
b) Delineate the discovered site area.
c) Secure the site to prevent any damage or loss of removable objects. In case of removable antiquities or sensitive remains, a night guard should be present until the responsible authority takes over.

d) Notify the responsible foreman/archaeologist. Who in turn should notify the responsible authorities, the General Directorate of Antiquities and local authorities (within less than 24 hours).
e) Responsible authorities would be in charge of protecting and preserving the site before deciding on the proper procedures to be carried out.
f) An evaluation of the finding will be performed by the General Directorate of Antiquities. The significance and importance of the findings will be assessed according to various criteria relevant to cultural heritage including aesthetic, historic, scientific or research, social and economic values.
g) Decision on how to handle the finding will be reached based on the above assessment and could include changes in the project layout (in case of finding an irrevocable remain of cultural or archaeological importance), conservation, preservation, restoration or salvage.
h) Implementation of the authority decision concerning the management of the finding.
i) Construction work could resume only when permission is given from the General Directorate of Antiquities after the decision concerning the safeguard of the heritage is fully executed.

6.6.2 In case of delay incurred in direct relation to Archeological findings not stipulated in the contract (and affecting the overall schedule of works), the contractor may apply for an extension of time. However, the contractor will not be entitled for any kind of compensation or claim other than what is directly related to the execution of the archeological findings works and protections.

7 Additional Requirements for Work in Public Areas

7.1 General

7.1.1 These additional requirements shall apply to all works carried out in Public Areas.

7.1.2 Public Areas are defined as areas still used by or accessible to the public. These include public roads and pavements, occupied buildings and areas outside the Contractor's boundary fencing.

7.1.3 All work in Public Areas shall be carried out to minimize disturbance and avoid dangers to the public.

7.1.4 Before commencing work, the Contractor shall ensure that all necessary resources, including labor, plant and materials, will be available when required and that the works will proceed without delays and be completed in the shortest possible time. Periods of inactivity and slow progress or delays in meeting the agreed programme for the works, resulting from the Contractor's failure to provide necessary resources or other causes within the control of the Contractor, will not be accepted. In the event of such inactivity, slow progress or delays, the Contractor shall take immediate action to rectify the situation, including all possible acceleration measures to complete the works

within the agreed programme. Details of the actions and acceleration measures shall be submitted to the Engineer. If the Engineer is dissatisfied with the Contractor's proposals, the Contractor shall take such further actions or measures as required by the Engineer. All costs incurred shall be the responsibility of the Contractor.

7.2 Method Statement

7.2.1 The Contractor shall submit to the Engineer a method statement for each separate area of work in Public Areas. The Method Statement shall include:

(a) a general description of the Works and methodology of how it will be carried out.

(b) details of the measures and temporary works to minimize disturbance and safeguard the public. These shall include temporary diversions, safety barriers, screens, signs, lighting, watchmen and arrangements for control of traffic and pedestrians and advance warning to be given to the public.

(c) details of temporary reinstatement and maintenance of same prior to final reinstatement.

(d) for works involving long lengths of trenches or works to be completed in sections, the lengths or sections of each activity (eg up to temporary reinstatement, temporary reinstatement, final reinstatement) to be carried out at any one time.

(e) details of the availability of necessary resources (labor, plant, materials, etc.) to complete the work.

(f) a programme showing start and completion dates and periods for all activities of each length or section, including temporary works, and the works overall.

(g) such further information as necessary or required by the Engineer.

7.2.2 The Contractor shall not commence work, including temporary works, until approval of the Contractor's Method Statement by the Engineer.

7.2.3 Method Statements shall be updated based on actual progress or as and when required by the Engineer.

7.3 Closure of Roads, Etc.

7.3.1 The closure or partial closure of roads, pavements and other public areas will only be permitted if approved by the Engineer and Relevant Authorities. The Contractor shall detail for each closure the extent of area to be closed, the reasons and duration of the closure and, where appropriate, proposed diversions.

A sample Street Closure Permit is given in Annex 2.

7.3.2 Access to Properties Affected by the Works:

The Contractor shall identify, protect and maintain accesses to all properties affected by the works.

7.3.3 The Contractor shall ascertain and comply with any regulations concerning traffic and parking in addition to the obligations imposed by the Conditions of Contract and by law.

7.3.4 The Contractor shall provide and maintain all necessary diversion, diversion signs, barricades, fencing, lighting, flagmen or slop/go Signs where the Works affect the safely of traffic and the public on existing roads or temporary diversion roads.

7.4 Trench and Other Excavations

7.4.1 The requirements covering trench and other excavations will depend on the location and type of the excavation and the potential risks to the public.

7.4.2 The following guidelines apply particularly to trenches but shall also apply to other types of excavations:

(a) before commencing work, the Contractor shall:

- notify the Engineer on the location and duration of the work. An excavation permit signed by the Engineer must be issued in accordance with Sub-Clause 5.15.1 before excavation proceeds in any work location.;
- obtain permission from relevant authorities including the police when required. The Contractor's attention is drawn to the requirements of Legislative Decree No 68 dated 9 September 1983, issued by the President of the Republic of Lebanon, and in particular to the provisions therein regarding prior notification by the Contractor to and the issue of excavation licenses by the Director of Roads or the Head of the Municipal Authority concerned, as applicable, before the commencement of excavations within the limits of streets, roads and other areas defined under the said Decree.
- erect all temporary works such as barriers, warning signs, lighting, etc.;
- have available adequate materials for temporary supports to sides of excavations and necessary labor, plant and materials to complete the work within the shortest possible time;

(b) in carrying out the works the Contractor shall, unless otherwise permitted or required by the Engineer:

- not open more than one excavation within a radius of 250 meters;
- limit the length of trench excavation open at one time to 150 meters;
- maintain and alter or adapt all temporary works including supports to sides of excavations;
- remove all surplus excavated material the same day itis excavated;
- complete the works, including final reinstatement within tendays;
- where final reinstatement is not achieved within the required time, to carry out temporary reinstatement;
- ensure that any temporary reinstatement is maintained at the correct level until final reinstatement is achieved.

7.4.3 The above guidelines shall not relieve the Contractor of his obligations and responsibilities.

7.5 Safety Barriers

7.5.1 Safety barriers shall be provided to the perimeter of work areas and to trench and other types of excavations and to existing openings such as manholes, draw pits and the like. When exposed to the public, safety barriers shall be provided to both sides of trenches and around all sides of openings.

7.5.2 The Contractor shall provide details of the type or types of safety barriers for each excavation for the approval of the Engineer prior to commencing work. No work shall commence until the safety barriers are in place.

7.5.3 The type of safety barrier used shall be appropriate to the particular location and the potential risks to the public. Examples of different types of safety barriers are given below along with attached figures:

- Type 1 - excavated material;
- Type 2 - non-rigid barrier of rope or florescent tape strung between metal rods driven into the ground;
- Type 3 – non-rigid barrier type K2, K5a, K5c and K8.
- Type 4 - rigid concrete barrier. Such barriers should be secured by means of dowels driven into the ground.

7.5.4 The following are guidelines on the type of safety barriers that could be used in differing situations. They apply particularly to trenches but also apply to other types of excavations, existing openings and to the perimeter of work areas:

- areas not subject to vehicular traffic - Types 1 or 2;
- roadways (low traffic speed) - Types 1 and 3 or Types 2 and 3;
- roadways (high traffic speed) - Type 3 (short term 1 to 2 days) or Type 4 (long term more than 2 days).

7.5.5 The above examples of the types of barriers and the guidelines on situations in which they could be used shall not relieve the Contractor of his obligations and responsibilities.

8 Contractor's Site Check List

8.1 A sample Contractor's Site Check List is included in Annex 3. This is included to assist contractors should they wish to introduce such a system as part of their site management procedures. The list is not exhaustive and further items will need to be added by the Contractor.

8.2 The list is issued for guidance only, and does not, in any way, revise or limit the requirements covered elsewhere in these Regulations.

9 Protection of Other Property and Services

9.1 Roads and Footpaths: The Contractor shall protect public and private roads, footpaths and the like from damage by site traffic or other causes arising from the execution of the Works and shall repair any damage to the satisfaction of the relevant public authority or private owner.

9.2 Trees, Hedges, Shrubs, Lawns: The Contractor shall protect and preserve, trees, hedges, shrubs, lawns etc., and shall replace to approval, or treat as instructed, any plants or areas damaged or removed without approval.

9.3 Existing Features: The Contractor shall prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other features on the Site or adjacent thereto which are to remain in position during the execution of the Works.

9.4 Existing Services
The Contractor shall:

(a) notify all service authorities and private owners before commencing any work which may affect or damage existing drains and services and observe all service authorities' regulations and/or recommendations work adjacent to existing services.

(b) ascertain the positions of all services not indicated in the Contract Documents and check the positions of those which are so indicated.

(c) adequately protect, maintain and prevent damage to all services and shall not interfere with their operation without the consent of the service authority or owner.

If any damage is caused to existing services as a result of execution of the Works, the Contractor shall notify the Project Manager Representative/Engineer's Representative and the service authority or private owner and make arrangements to repair the damage to the satisfaction of the service authority or private owner as appropriate.

9.5 Adjoining Property,
The Contractor shall:

- take all reasonable precautions to prevent damage to adjoining property and, if any damage is caused as a result of the execution of the Works, make good to the satisfaction of the owner.
- obtain permission of the owners if it is necessary to erect Temporary Works or otherwise use adjoining property and pay all charges.
- advise owners or occupiers of adjoining property of the dates on which work which may affect them is to be executed

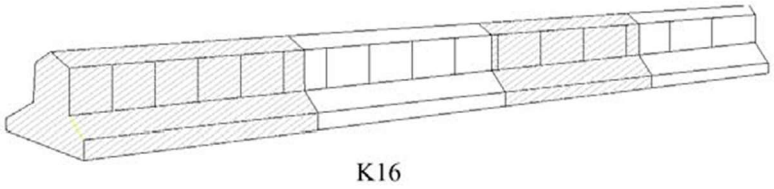
9.6 Existing Condition of roads, paths, features, services and adjoining property which is at risk from damage shall be recorded by photographs or surveys as appropriate.

9.7 Occupied Premises
The Contractor shall:

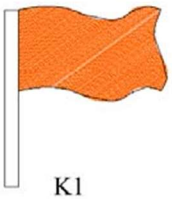
(a) where the works are to be carried out in or around occupied premises ascertain the times and nature of the occupation and use. Carry out the Works with minimum inconvenience, nuisance and danger to the occupants and users.

(b) if the danger to the occupied premises is such as to involve the safety of persons advise the Employer to evacuate temporarily such persons until the danger is eliminated. The expense of evacuation, temporary accommodation and re-occupation of the premises and other expenses shall be borne by the Employer.

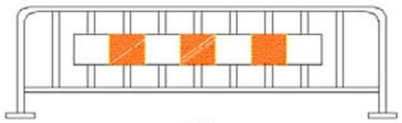
TEMPORARY TRAFFIC CONTROL DEVICES



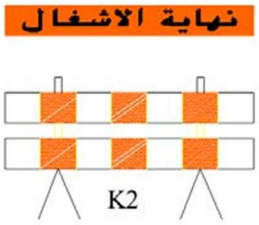
K16



K1



K2



K2



K5a



K8



K13b

K5c

TEMPORARY MARKING

THESE LINES ARE YELLOW AND CAN BE
REMOVED WITHOUT ANY RESIDUAL TRACE.
DIMENSIONS ARE IN CM



MR2 TEMPORARY



TYPE T1



TYPE T3

TEMPORARY GUIDE SIGNS

BLACK TEXT AND GRAPHICS ON YELLOW SIGN PLATE



KD8



NOTICE PAVEMENT CHANGE

KD8



KD10



KD10



KD2



NOTICE THE DIVERSION

KD2

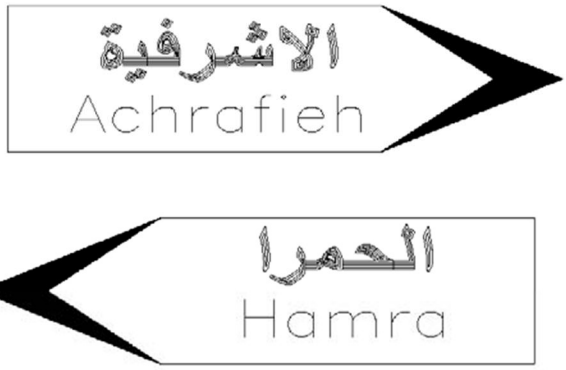


NOTICE REDUCTION IN NUMBER OF LANES

KD10



KC1



KD5

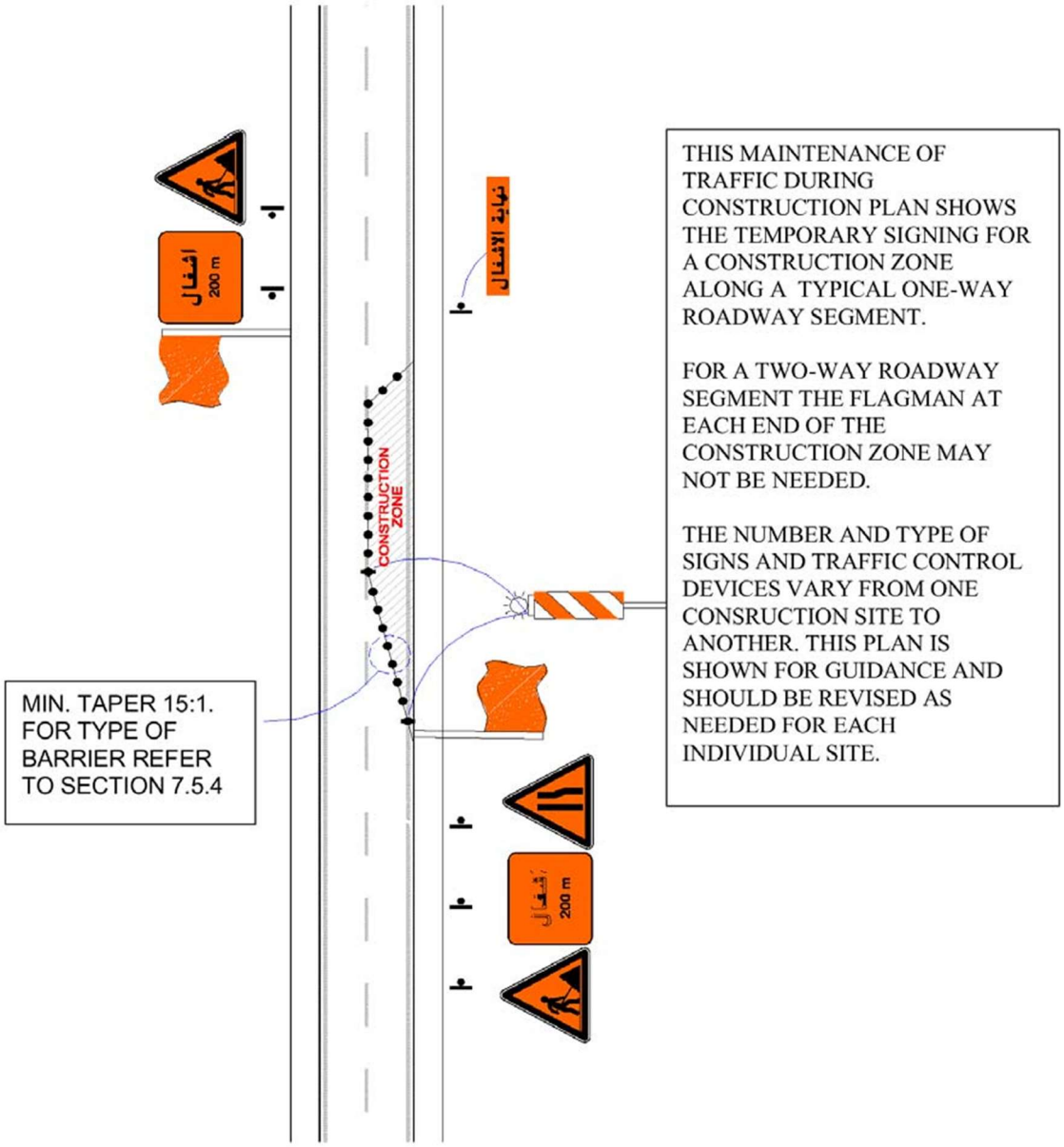
TEMPORARY WARNING SIGNS



AK2 AK3 AK22a AK5

SIZE TO BE DETERMINED BASED ON ROADWAY SPEED - USE 60KPH OR 80 KPH

TEMPORARY ROAD WORKS
MAINTENANCE OF TRAFFIC DURING CONSTRUCTION TYPICAL LANE CLOSURE



Annex 1

Sample Excavation Permit

To:..... (Engineer)

From: ..... (Contractor) Date: .....

CDR Contract No: .....
Request for Excavation Permit No: .....

Please give approval for excavation to proceed in the following area:

Work to start on:

Existing services have been checked and identified by:

Drawings	#	Physical Survey	#
Catscan	#	Trial Holes Excavation	#

Signed (Contractor): .....

Approval of Engineer

The above excavation may proceed, subject to the following:

Services to be maintained:

Services to be isolated before work proceeds:

Other matters:

Signed (Engineer): .....

Date: .....

Annex 2

Sample Street Closure Permit

To:..... (Engineer)

From: ..... (Contractor) Date: .....

CDR Contract No: .....
Request for Street Closure Permit No: .....

Please give approval for the closure of the following street(s) from ..... to .....
(*dates*)

Street(s):

Reasons:

Proposed diversions:

Signed (Contractor): .....

Approval of the Engineer

The above street(s) may be closed for the periods stated subject to the following conditions:

Approval has been given by relevant authorities and the police;

Other:

Signed (Engineer): .....

Date: .....

Annex 3

Sample Contractor's Site Check List

Safe Access:

- arrangements for visitors and new workers to the site
- safe access to working locations
- walkways free from obstructions
- edge protection to walkways over 2m above ground
- holes fenced or protected with fixed covers
- tidy site and safe storage of materials
- waste collection and disposal
- chutes for waste disposal, where applicable
- removal or hammering down of nails in timber
- safe lighting for dark or poor light conditions
- props or shores in place to secure structures, where applicable

Ladders:

- to be used only if appropriate
- good condition and properly positioned
- located on firm, level ground
- secure near top. If not possible, to be secured near the bottom, weighted or footed to prevent slipping
- top of ladder minimum 1 meter above landing place

Scaffolding:

- design calculations submitted
- proper access to scaffold platform
- properly founded uprights with base plates
- secured to the building with strong ties to prevent collapse
- braced for stability
- loadbearing fittings, where required
- uprights, ledgers, braces and struts not to be removed during use
- fully boarded working platforms, free from defects and arranged to avoid tipping or tripping
- securely fixed boards against strong winds
- adequate guard rails and toe boards where scaffold 2m above ground
- designed for loading with materials, where appropriate
- evenly distributed materials
- barriers or warning notices for incomplete scaffold (ie not fully boarded)
- weekly inspections and after bad weather by competent person
- record of inspections

Excavation:

- underground services to be located and marked and precautions taken to avoid them
- adequate and suitable timber, trench sheets, props and other supporting materials available on site before excavation starts
- safe method for erecting/removal of timber supports
- sloped or battered sides to prevent collapse
- daily inspections after use of explosives or after unexpected falls of materials
- safe access to excavations (eg sufficiently long ladder)
- barriers to restrict personnel/plant
- stability of neighboring buildings risk of flooding
- materials stacked, spoil and vehicles away from top of excavations to avoid collapse
- secured stop blocks for vehicles tipping into excavations

Roof work:

- crawling ladders or boards on roofs more than 10 degrees
- if applicable, roof battens to provide a safe handhold and foothold
- barriers or other edge protection
- crawling boards for working on fragile roof materials such as asbestos cement sheets or glass. Guard rails and notices to same
- roof lights properly covered or provided with barriers
- during sheeting operations, precautions to stop people falling from edge of sheet
- precautions to stop debris falling onto others working under the roof work

Transport and mobile plant:

- in good repair (eg steering, handbrake, footbrake)
- trained drivers and operators and safe use of plant
- secured loads on vehicles
- passengers prohibited from riding in dangerous positions
- propping raised bodies of tipping lorries prior to inspections
- control of on-site movements to avoid danger to pedestrians, etc.
- control of reversing vehicles by properly trained banksmen, following safe system of work

Machinery and equipment:

- adequate and secured guards in good repair to dangerous parts, eg exposed gears, chain drives, projecting engine shafts

Cranes and lifting appliances:

- weekly recorded inspections
- regular inspections by a competent person
- test certificates
- competent and trained drivers over 18 years of age
- clearly marked controls
- checks by driver and banksman on weight of load before lifting
- efficient automatic safe load indicator, inspected weekly, for jib cranes with a capacity of more than one tone
- firm level base for cranes

- sufficient space for safe operation
- trained banksman/slinger to give signals and to attach loads correctly, with knowledge of lifting limitations of crane
- for cranes with varying operating radius, clearly marked safe working loads and corresponding radii
- regularly maintenance
- lifting gear in good condition and regularly examined

Electricity:

- measures to protect portable electric tools and equipment from mechanical damage and wet conditions
- checks for damage to or interference with equipment, wires and cables
- use of the correct plugs to connect to power points
- proper connections to plugs; firm cable grips to prevent earth wire from pulling out
- "permit-to-work" procedures, to ensure safety
- disconnection of supplies to overhead lines or other precautions where cranes, tipper lorries, scaffolding, etc. might touch lines or cause arcing

Cartridge operated tools:

- maker's instruction being followed
- properly trained operators, awareness of dangers and ability to deal with misfires
- safety goggles
- regular cleaning of gun
- secure place for gun and cartridges when not in use

False work/formwork:

- design calculations submitted
- method statement dealing with preventing falls of workers
- appointment of false work coordinator
- checks on design and the supports for shuttering and formwork
- safe erection from steps or proper platforms
- adequate bases and ground conditions for loads
- plump props, on level bases and properly set out
- correct pins used in the props
- timberwork in good condition
- inspection by competent person, against agreed design before pouring concrete

Risks to the Public:

- identify all risks to members of the public on and off site, eg materials falling from scaffold etc., site plant and transport (access/egress) and implement precautions, eg scaffold fans/nets, banksmen, warning notices etc.
- barriers to protect/isolate persons and vehicles
- adequate site perimeter fencing to keep out the public and particularly children. Secure the site during non-working periods
- make safe specific dangers on site during non-working periods, eg excavations and openings covered or fenced, materials safely stacked, plant immobilized, ladders removed or boarded

Fire - general:

- sufficient number and types of fire extinguishers
- adequate escape routes, kept clear
- worker awareness of what to do in an emergency

Fire - flammable liquids:

- proper storage area
- amount of flammable liquid on site kept to a minimum for the day's work
- smoking prohibited; other ignition sources kept away from flammable liquids
- proper safety containers

Fire - compressed gases, eg oxygen, LPG, acetylene:

- properly stored cylinders
- valves fully closed on cylinders when not in use
- adopt "hot work" procedures
- site cylinders in use outside huts

Fire - other combustible materials:

- minimum amount kept on site
- proper waste bins
- regular removal of waste material

Noise:

- assessment of noise risks
- noisy plant and machinery fitted with silencers/muffs
- ear protection for workers if they work in very noisy surroundings

Health:

- identify hazardous substances, eg asbestos, lead, solvents etc and assess the risks
- use of safer substances where possible
- control exposure by means other than by using protective equipment
- safety information sheets available from the supplier
- safety equipment and instructions for use
- keep other workers who are not protected out of danger areas
- testing of atmosphere in confined spaces; provision of fresh air supply if necessary. Emergency procedures for rescue from confined spaces

Manual handling:

- avoid where risk of injury
- if unavoidable, assess and reduce risks

Protective clothing:

- suitable equipment to protect the head, eyes, hands and feet where appropriate
- enforce wearing of protective equipment

Welfare:

- suitable toilets
- clean wash basin, hot/warm water, soap and towel
- room or area where clothes can be dried
- wet weather gear for those working in wet conditions
- heated site hut where workers can take shelter and have meals with the facility for boiling water
- suitable first aid facilities

Work in Public Areas

- all risks to the public identified
- method statement approved
- road closures approved
- temporary diversions in place
- safety barriers erected/maintained
- safety signs and lighting installed/maintained
- labor, materials, plant and other resources sufficient to meet programme
- temporary reinstatement completed and properly maintained
- permanent reinstatement completed at earliest possible date

Part II

Supplementary Safety, Health and Environmental Regulations

None

Appendix 2

VAT Mandate

Value Added Tax
Law # 379 dated 14/12/2001 amended by Law No. 64 dated 20/10/2017

1- The Contractor/Consultant shall be registered in the Ministry of Finance – VAT Department to be able to invoice the VAT to the Council for Development and Reconstruction or obtain its refund from the Ministry of Finance, according to the financing source of the contract.

2- The Contractor/Consultant shall submit its offer without calculating the VAT in its unit price.

3- Method of invoicing the VAT for contracts totally financed by the Lebanese State:
The Contractor/Consultant shall invoice the VAT to the CDR upon submittal of its statements by adding 11% VAT on the net value of the statement, separately from the value of the statement.

4- Method of VAT invoicing/refund for contracts partially financed by foreign sources:
For the section locally financed, the Contractor/Consultant shall invoice the VAT to the CDR in accordance with clause 3 above.
For the section financed by foreign sources, the Contractor/Consultant shall obtain the VAT refund directly from the Ministry of Finance.

5- Methods of VAT refund for contracts totally financed by foreign sources:
The contracts totally financed by foreign sources shall be exempted from the VAT. In the event the Contractor/Consultant is bound to pay this tax, the latter shall obtain its refund directly from the Ministry of Finance and not from the Council for Development and Reconstruction. (Refer to Article 19 – clause 4 of Law # 379, and Article 3 (b) of implementation Decree # 7336 dated 31/01/2002.)

This document was approved by virtue of decision # 147/2002 dated 07/03/2002, taken by the Board of Directors of the CDR; and amended as per Law No. 64 dated 20/10/2017 by CDR Board of Directors decision # 226/2018 dated 08/03/2018.

APPENDIX 3

Power of Attorney for Firm's Representative

The representative of the moral person that will be declared successful bidder has the necessary prerogatives to carry out any legal proceeding or measure in connection with the tender, and that said representative should submit for this purpose an official document proving that he is the holder of such prerogatives, namely when the act is of disposal nature such as to waive, to release, to cash, to disclaim and to acknowledge, provided that said document is not older than three months from the date of the tender submission.

CONTRACTUAL FORMS

FORM OF AGREEMENT

This Agreement made the ----------day of ---------200------between ---------- ..... of ..... (hereinafter called "the Employer") of the one part and ..... ---------- (hereinafter called the "Contractor") of the other part

WHEREAS the Employer is desirous that certain Works should be executed by the Contractor, Viz. ..... --------- and has accepted a Bid by Contractor for the execution and completion of such Works and remedying of any defects therein.

Now this agreement witnesses as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz :
   a) The form of Agreement;
   b) The addendum(s) to Tender Documents (if any);
   c) The Appendix to Bid
   d) The Conditions of Particular Application (Part II);
   e) The General Conditions of Contract (Part I);
   f) The General Requirements and Preliminaries (if any);
   g) The Specifications;
   h) The Drawings;
   i) The priced Bill of Quantities
   j) The breakdown of Bill of Quantities prices
   k) Any other document forming part of the Contract including the Contractor's Bid insofar as it is not covered by any of the foregoing;
3. This agreement shall be considered embodying the employer's letter of Acceptance referred to in the Conditions of Contract. All actions and/or activities under the contract that relate to the date of the Letter of Acceptance shall be deemed to relate to the date of this agreement.
4. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
5. The Employer 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 the day and year first above written.

Signed Sealed and Delivered by the

The Employer	The Contractors
Address	Address
Signed	Signed
Name	Name
Affixed Seal	Affixed Seal

SPECIMEN FORM

PERFORMANCE BANK GUARANTEE

Name and
Address of the Guarantor Bank

To: The Council for Development and Reconstruction
Tallet El Serail Box 11-3170
Beirut, Lebanon

In consideration of your having contracted on_____with Messrs _____(hereinafter called the Contractor) for the construction of _____(Project), Contract No._____and since it being a condition of the Contract that the Contractor undertakes to produce a Bank Guarantee for good performance of the Contract of amount of USD_____(US Dollars _____ only)

We, the undersigned bank waiving all objection and defenses under the aforesaid contract, hereby unconditionally and irrevocably guarantee jointly and severally with the contractor and as primary obligator and not as surety merely, to pay the CDR without delay upon its first demand and without cavil or argument, any sum up to the maximum o f USD_____ (French US Dollars_____Only) in the event according to the binding opinion of the CDR, the Contractor would refuse or fail to comply with his contractual obligations.

The failure of the contractor to comply with his contractual obligations shall be advised to us in writing with a copy to the contractor.

In Case of any claim under this guarantee, payment should be indemnified to the account of the Kuwait Fund for Arab Economic Development (Account of Lebanon) and the Council for Development and Reconstruction - Beirut in their respective financing proportions.

This guarantee shall be valid until.....*(insert date)* or until 28 days after the issue of the Defects Liability Certificate, whichever comes later.

Date: _____ Bank:_____
(Stamp & Authorized Signature)

(NOTE: The original and two bank- certified copies shall be submitted within the specified time after contract signature)

SPECIMEN FORM

ADVANCE PAYMENT BANK GUARANTEE

Name and
Address of the Guarantor Bank

To : The Council for Development and Reconstruction
Tallet El Serial, P. O. Box 11-3170
Beirut, Lebanon

In consideration of your having contracted on_____with Messrs. _____ (hereinafter called the Contractor) for _____ (Project) at a Contract price of _____ and since it being a condition of the contract that an amount of_____being_____% of the contract price be advanced to the Contractor.

We, the undersigned Bank, waiving all objections and defenses under the aforesaid contract, hereby unconditionally and irrevocably guarantee jointly and severally with the contractor and as primary obligator and not as surety merely, to pay the CDR without delay upon its first demand and without cavil or argument, any sum up to the maximum o f USD_____ (Fresh US Dollars_____Only) in the event according to the binding opinion of the CDR, the Contractor would refuse or fail to comply with his contractual obligations.

The failure of the contractor to comply with his contractual obligations shall be advised to us in writing with a copy to the contractor.

This guarantee shall come into force on receipt of the advance payment of _____by the Contractor.

In Case of any claim under this guarantee, payment should be indemnified to the account of Kuwait Fund for Arab Economic Development (Account of Lebanon) and the Council for Development and Reconstruction - Beirut in their respective financing proportions.

This Guarantee shall remain valid till the full recovery of the amount of the advance payment by you.

Date: _____ Bank: _____
(Stamp & Authorized Signature)