PART 6

PREAMBLES AND METHODS OF MEASUREMENTS
PREAMBLES

1. GENERAL PREAMBLES

1.0 General Requirements

1.1 These Preambles shall be read in conjunction with the Conditions of Contract, Drawings and Specification, and they shall not be considered as exhaustive but merely highlighting certain points.

1.2 General directions and descriptions of the work and materials are given in the Specification and/or detailed on the Drawings and are not to be repeated in the measured items in the Tender Book. Reference shall be made to the Specification and the Drawings for this information.

1.3 The Contract Sum inserted in the Tender Book by the Contractor shall include for executing the work as described in the Contract Documents including Preliminaries and all other costs and expenses required for the completion and maintenance of the Works together with all general risks, liabilities and obligations set forth or implied in the tender documents.

The Contract Sum inserted in the Tender Book by the Contractor shall moreover include for all costs associated with the following:

(a) agreement of all existing ground and rock levels in connection with the Works with the Engineer; and

(b) the preparation and submission (in the format required by the Engineer) of all measurements, details, and levels of the finished Works together with fully detailed monthly payment application; and

(c) the preparation and submission (in the format required by the Engineer) of “as built” drawings.

1.4 The full details given in the Specification or shown on the Drawings are not necessarily repeated in the Bills of Quantities and reference is to be made to the Specification and the Drawings for this information.

1.5 Quantities in the Bills of Quantities are the estimated quantities for the works and are subject to re-measurement.

1.6 All items are measured net; unit rates shall be deemed to include for bulking loss through compaction, waste, small quantities, short lengths, over-excavation, working space and all other associated work.

2.0 Earthworks Generally

2.1 The rates for excavation shall include for excavating in any material (except rock and below the water table, if applicable), for earthwork support, dewatering, disposal of ground water, leveling/grading, compacting and trimming, backfilling as described in
PREAMBLES (Cont’d)

1. GENERAL (Cont’d)

2.0 Earthworks Generally (Cont’d)

the particular items, and multi-handling (including temporary spoil heaps) and
disposal of surplus excavated material in accordance with clause 2.3 below, all as
directed by the Engineer.

2.2 The rates shall also include for taking all due precautions including hand excavation
in the vicinity of and around existing sewers, mains and services. The protection of all
such services, including liaison with the Ministry of Electricity and Water, this
Ministry, Bahrain Telecommunication Company and any other public authority as
necessary to establish exact locations and depths, excavation of trial holes to locate
services, and provision of temporary support and protection works, shall be entire
responsibility of the Contractor and shall be deemed to be included in his rates.

Any damage to existing property and/or services shall be repaired to the satisfaction
of the appropriate authority and the Engineer at no cost to the employer.

2.3 Surplus excavated material shall be either backfilled, spread and leveled on site or
removed to an approved stockpile, all in accordance with the Engineer’s Instructions.

2.4 Filling material shall be as described in the Specification. The Contractor shall take
all necessary precautions when compacting filling in the vicinity of or over existing
service and shall adopt specialised compacting procedures as directed by the
Engineer.

2.5 Rock shall be as defined in the Specification, and the rates shall include for all
necessary additional trimming, small quantities, the use of drills, compressors,
wedges and all other necessary special equipment, additional backfilling material
where required and all other associated works. THE CONTRACTOR SHALL NOTE
THAT THE DEFINITION OF ROCK INCLUDED IN THE SPECIFICATION
SHALL BE STRICTLY APPLIED.

2.6 Excavating below water table shall be defined as work carried out below the ground
water level established at the time the various excavation works commence and is
known hereafter as the agreed contract water level. Where ground water levels are
subject to periodic due to tidal or similar effects they shall be so described and the
average of the mean high and low levels given. The rates shall include for all
necessary additional earthwork support, dewatering, working in running silt or
running sand and all other measures deemed to be required to carry out the work.

3.0 Concrete Works

3.1 The rates shall include for the concrete, formwork, expansion joints, bitumen paint,
polythene sheet and reinforcement if so described.
PREAMBLES (Cont’d)

1. GENERAL (Cont’d)

3.0 Concrete Works (Cont’d)

3.2 The rates shall also be deemed to include for all in-situ and precast concrete, cement mortar and concrete blockwork to be sulphate resistant for all works to substructures, drainage and external works and services below or in contact with the ground.

4.0 Water and Electricity Supply for the Works

4.1 The Contractor’s attention is particularly drawn to the fact that there will be no direct water or electricity supply available for construction of the Works. The Contractor shall be deemed to have allowed in his rates and prices for the provision of water for all construction requirements (and for drinking) and for any temporary electricity supply required for the construction of the Works.

5.0 Methods of Measurement and Pavement

5.1 The description of the work and the technical requirements are not necessarily repeated in the Bills of Quantities. A measured item shall be supplied, erected and/or constructed, including any auxiliary materials etc. unless otherwise explicitly stated.

5.2 The rates and prices shall include for mobilization, demobilization, remobilization, provision of plant, equipment, tools, labour, supervision, materials including waste, erection and construction, testing, Insurance, maintenance, overheads, profit, taxes and every incidental cost and charge whatsoever necessary to complete the work in accordance with the contract Documents.

5.3 No extra payment will be made if the position of works as set out or existing obstructions will not allow the efficient use of mechanical plant, or necessitates working by hand, multi-handling of materials or additional haulage.

5.4 Identical items which may occur in different sections of the Bills of Quantities shall be priced by the Contractor at the same rate throughout. Should any of the rates be at variance the Employer reserves the right to revaluate these items at the lowest applicable rate prior to acceptance of the tender.

5.5 Any Bills of Quantities items which are left unpriced by the Contractor shall be deemed to be included in his other unit rates and prices and no additional payment shall be made by the Employer in respect of such work.

5.6 All items will be remeasured in the same measurement units as those contained in these Bills of Quantities.
PREAMBLES  (Cont’d)

2. WORK SECTION PREAMBLES

1.0  General

1.1  The unit rates shall be deemed to include for the cost of complying with the general Preambles.

2.0  Preliminary Earthworks

2.1  Site Clearance

Site Clearance shall include for grubbing up, clearing and removal from the site(s) of all surface and underground obstacles, rubbish, vegetation and the like that may hinder the Works and for clearing the site(s) on completion of the Contract.

2.2  Excavate to Reduce Levels, Excavate Channel, Excavate Trench & Remove from Site

The unit rates for excavation shall be deemed to include for excavating as described in the General Preambles and for the removal and disposal of surplus excavated material to a tip as directed by the Engineer.

2.3  Excavate to Reduce Levels, Excavate Channel, Excavate Trench & Fill to make Up Levels or to form Embankments

The unit rates shall include for all items as Item 2.2 above and shall also include for selected suitable material for filling as specified, including all necessary screening, any multi-handling and temporary stockpiling, compaction and all other treatment of existing ground and depositing, shaping and compacting the materials in layers and on completion all as described in the Specification.

Water used for compacting within two meters of the finished surface shall have a salinity level not exceeding 2,500 parts per million.

2.4  Extra over Excavation for Excavating in rock

Except where included in these preambles as part of a composite item rock excavation shall be measure separately as extra over general excavation to the original nett volume in place between the datum lines and levels set out by the Engineer.

2.5  Haulage of Surplus Excavated or Surplus Fill Material to a Stockpile

Note: For the purpose of this item only, the cost of haulage from the site up to a distance of 10 kilometers to an approved tip in Items 2.2 and 2.3 above is deemed to be included in the rates inserted by the Contractor for those items.
PREAMBLES  (Cont’d)

2. WORK SECTION PREAMBLES  (Cont’d)

2.0  Preliminary Earthworks  (Cont’d)

2.5  Haulage of Surplus Excavated or Surplus Fill Material to a Stockpile  (Cont’d)

Payment for transporting surplus excavated or surplus fill material to an approved tip on another site (as directed by the Engineer) will be made on the basis of volume of material (as excavated, moved multiplied by the distance hauled multiplied by the rate inserted by the Contractor).

The haulage distance will be the distance between the nearest point at the perimeter of the site to the center of the stockpile site excluding the initial 10 kilometers. All loading, handling and transporting of the above material within the Contractor’s sites is his responsibility and no additional payment will be made for this. For the purpose of this sub-clause, the term “the site” shall be construed any sites located anywhere within the Kingdom of Bahrain.

2.6  Filling

The unit rate shall include for the provision of fill of the stated class including screening, haulage costs from any location, multi-handling, including temporary stockpiling, compaction and all other treatment of existing ground and depositing, shaping and compacting the material in layers and on completion all as described in the Specification.

Water used for compacting within two meters of the finished surface shall have a salinity level not exceeding 2,500 parts per million.

The Contractor is particularly referred to items 3.0 to 5.0 of the Particular Specification (Part 5). The Engineer will instruct the Contractor to use one specific type of filling for the situations described in the Particular Specification and the rate for this particular filling will be applied. In all other cases, the type of filling will be at the Contractor’s option (but still to comply with the Specification) and the rate for optional Class 3 or Class 4 filling will be applied.

2.7  Stone Revetment

The unit rate shall include for grading to the required slopes, leveling and compacting the earthworks, supplying and laying stones in and including 200mm thick concrete (Grade 30) bed as detailed on the Drawings and described in the Specification.
3.0 METHOD OF MEASUREMENT

Generally

1. The Schedule of Rates has been prepared in such a manner that the description of each item (which descriptions shall imply reference to any heading, sub-heading, preambles or other clause or item which shall be held to include all labours, plant, materials and workmanship, including all Customs Duties, Port Duties, Import Duties, Municipal Taxes and other duties levied by the Kingdom of Bahrain, landing charges, transport charges of whatever description, overheads, profit and all items of a preliminary or general nature in order to complete the works as measured in accordance with (SMM6) standard Method of Measurement of Building Works, sixth edition dated 1979, as published by the Royal Institute of Chartered Surveyors and the National Federation of Building Trades Employers as amended or modified expressly or by implication by the preambles or item descriptions, by the Contract Documents generally and the Schedule of Rates.

2. The Schedule of Rates shall be read in conjunction with the Drawings, the Standard Conditions of Contract and the Standard Specification as described in Part 1 of this Tender Book.

3. Unless otherwise stated the following shall be deemed to be included with all items:
   (a) Labour and all costs in connection
   (b) Materials, goods and all costs in connection.
   (c) Fitting and Fixing materials and goods in position.
   (d) Plants and all costs in connection.
   (e) Waste of materials.
   (f) Short lengths.
   (g) All cutting and all labours on materials and executed work.
   (h) Protection.
   (i) Testing and commissioning
   (j) Establishment charges, overhead charges and profit.

4. The Tenderer shall not amend the quantity of any item described as PROVISIONAL since such items shall be remeasured. The term "as described" shall mean as described in the Standard Specification, July 1987 as mentioned in Part 1 of this Tender Book, and shall apply throughout the Schedule of Rates.

6. The Tenderer shall price out the Schedule of Rates fully and properly.