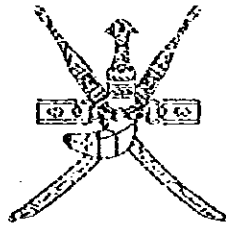


**SULTANATE OF OMAN**  
**MINISTRY OF COMMUNICATIONS**  
**DIRECTORATE GENERAL OF ROADS**



**CONSTRUCTION OF  
FLYOVER  
AT  
AL KHABURAH ROUNDABOUT  
BATINAH HIGHWAY**

**TENDER DOCUMENTS**

**BILL OF QUANTITIES**

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**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 1 - PRELIMINARIES**

| Item No | Description  | Unit     | Estimated Quantity | Unit Rate          |    | Amount    |
|---------|--|----------|--------------------|--------------------|----|-----------|
|         |  |          |                    | R.O.               | Bz |           |
|         | <b>SECTION 100 PRELIMINARIES</b>   |          |                    |                    |    |           |
|         | <b>101 Bonds and Insurance</b>   |          |                    |                    |    |           |
| 101.1   | Performance Bond (Clause 10 of Standard Conditions of Contract)              | lump sum |                    |                    |    |           |
| 101.2   | Insurance of the Works (Clause 21 of Standard Conditions of Contract)        | lump sum |                    |                    |    |           |
| 101.3   | Damage to Persons and Property (Clause 22 of Standard Condition of Contract) | lump sum |                    |                    |    |           |
| 101.4   | Third Party Insurance (Clause 23 of Standard Conditions of Contract)         | lump sum |                    |                    |    |           |
| 101.5   | Accident or injury to Workmen (Clause 24 of Standard Condition of Contract)  | lump sum |                    |                    |    |           |
|         |  | 1-1      |                    | Carried to summary |    | 44250.000 |

511382785

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 1 - PRELIMINARIES**

| Item No | Description   | Unit  | Estimated Quantity | Unit Rate |                    | Amount    |           |
|---------|---|-------|--------------------|-----------|--------------------|-----------|-----------|
|         |   |       |                    | R.O.      | Bz                 | R.O.      | Bz        |
|         | 104 Facilities for the Engineer                         |       |                    |           |                    |           |           |
| 104.1   | Provision of Engineer's office (Type A, 1 unit x 20)    | month | 20                 | 250.000   |                    | 5000.000  |           |
| 104.2   | Maintenance of Engineer's office (Type A, 1 unit x 20)  | month | 20                 | 150.000   |                    | 3000.000  |           |
| 104.3   | Provision of surveying instruments                      | month | 18                 | 300.000   |                    | 5400.000  |           |
| 104.4   | Maintenance of surveying instruments                    | month | 18                 | 150.000   |                    | 2700.000  |           |
| 104.5   | Provision of Engineer's accommodation                   |       |                    |           |                    |           |           |
|         | (i) Resident Engineer's accommodation (Type B, 2 unit ) | month | 38                 | 250.000   |                    | 9500.000  |           |
|         | (ii) Engineer's accommodation (Type C, 4 units )        | month | 74                 | 150.000   |                    | 11100.000 |           |
|         | (iv) Dining/Kitchen (Type D, 1 unit x 18)               | month | 18                 | 250.000   |                    | 4500.000  |           |
|         |   |       |                    | 1-2       | Carried to summary |           | 41200.000 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 1 - PRELIMINARIES**

| Item No | Description   | Unit      | Estimated Quantity | Unit Rate |    | Amount             |    |           |
|---------|---|-----------|--------------------|-----------|----|--------------------|----|-----------|
|         |   |           |                    | R.O.      | Bz | R.O.               | Bz |           |
| 104.6   | Maintenance of Engineer's accommodation                 |           |                    |           |    |                    |    |           |
|         | (i) Resident Engineer's accommodation (Type B, 2 unit ) | month     | 38                 | 150.000   |    | 5700.000           |    |           |
|         | (ii) Engineer's accommodation (Type C, 4 unit )         | month     | 74                 | 250.000   |    | 18500.000          |    |           |
|         | (iv) Dining/Kitchen (Type D, 1 unit x 18)               | month     | 18                 | 250.000   |    | 4500.000           |    |           |
| 104.7   | Provision of laboratory                                 | month     | 18                 | 400.000   |    | 7200.000           |    |           |
| 104.8   | Maintenance of laboratory                               | month     | 18                 | 150.000   |    | 2700.000           |    |           |
| 104.10  | In situ soil bearing capacity tests                     | n.r.      | 20                 | 20.000    |    | 400.000            |    |           |
| 104.11  | Sub-soil investigation by specialist Contractor         | prov. sum |                    | 8,000.000 |    | 8000.000           |    |           |
|         |   |           |                    | 1-3       |    | Carried to summary |    | 47000.000 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 1 - PRELIMINARIES**

| Item No | Description  | Unit      | Estimated Quantity | Unit Rate |                    | Amount     |            |
|---------|--|-----------|--------------------|-----------|--------------------|------------|------------|
|         |  |           |                    | R.O.      | Bz                 | R.O.       | Bz         |
| 105     | Assistance for Engineer  |           |                    |           |                    |            |            |
| 105.1   | Labors to assist the Engineer (no x months)  | man month | N/A                |           |                    |            |            |
| 106     | Contractor's Compound  |           |                    |           |                    |            |            |
| 106.1   | Mobilization and demobilization of Contractor's facility   | lump sum  |                    |           |                    | 100000.000 |            |
| 106.2   | Maintenance of Contractor's facility   | month     | 18                 |           | 5,000.000          | 90000.000  |            |
| 107     | Maintenance and Protection of Traffic  |           |                    |           |                    |            |            |
| 107.1   | Maintenance and protection of traffic  | lump sum  |                    |           |                    | 100000.000 |            |
| 107.2   | Extra over item 107.1 for supply and compaction of subbase on diversions where ordered by the Engineer (10 cm. thick)              | cu. m.    |                    |           |                    |            |            |
| 107.3   | Extra over item 107.1 for supply and compaction of bituminous basecourse on diversions where ordered by the Engineer (3 cm. thick) | cu. m.    |                    |           |                    |            |            |
|         |  |           |                    | 1-4       | Carried to summary |            | 290000.000 |



**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 1 - PRELIMINARIES**

| Item No | Description   | Unit     | Estimated Quantity | Unit Rate |                    | Amount   |
|---------|---|----------|--------------------|-----------|--------------------|----------|
|         |   |          |                    | R.O.      | Bz                 |          |
|         | <b>108 Progress Photographs</b>   |          |                    |           |                    |          |
| 108.1   | Provision of negatives and 5 sets of photographs (14 photos max.)<br>(Mountable-Size 100 x 150 mm.) | month    | 18                 | 30.000    |                    | 540.000  |
|         | <b>109 Sign Boards</b>  |          |                    |           |                    |          |
| 109.1   | Provision, erection, moving and maintenance of signboard (Wooden Type)                              | n.r.     | 2                  | 300.000   |                    | 600.000  |
|         | <b>110 Commemoration Plaque and Opening Ceremony</b>  |          |                    |           |                    |          |
| 110.1   | Supply and erection of commemoration plaque (Optional)  | n.r.     | 1                  | Option    |                    |          |
| 110.2   | Opening ceremony (Optional)   | lump sum |                    |           |                    |          |
|         |   |          |                    | 1-5       | Carried to summary | 1140.000 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 1 - PRELIMINARIES**

| Item No | Description  | Unit     | Estimated Quantity | Unit Rate |                    |
|---------|--|----------|--------------------|-----------|--------------------|
|         |  |          |                    | R.O. Bz   | Amount R.O. Bz     |
| 115.1   | 115 Compliance with the Tender Documents<br>Allow for all costs and expense for complying with all the conditions and requirements stipulated in the Tender Documents, including all Clause of the Standard Conditions of Contract, which the Tenderer considers have financial implications on his tender and which are not covered separately in the various pay items of the Bill of Quantities |          |                    |           |                    |
|         | Clause No .....  | lump sum |                    |           |                    |
|         | Clause No .....  | lump sum |                    |           |                    |
|         | Clause No .....  | lump sum |                    |           |                    |
|         | Clause No .....  | lump sum |                    |           |                    |
|         | Clause No .....  | lump sum |                    |           |                    |
|         | Clause No .....  | lump sum |                    |           |                    |
|         | Clause No .....  | lump sum |                    |           |                    |
|         | Clause No .....  | lump sum |                    |           |                    |
|         |  |          |                    | 1-6       | Carried to summary |

CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 1 - PRELIMINARIES

| Item No | Description | Unit | Estimated Quantity | Unit Rate         |    | Amount |            |
|---------|-------------|------|--------------------|-------------------|----|--------|------------|
|         |             |      |                    | R.O.              | Bz | R.O.   | Bz         |
|         | SUMMARY     |      |                    |                   |    |        |            |
|         | Page 1-1    |      |                    |                   |    |        | 44250.000  |
|         | Page 1-2    |      |                    |                   |    |        | 41200.000  |
|         | Page 1-3    |      |                    |                   |    |        | 47000.000  |
|         | Page 1-4    |      |                    |                   |    |        | 290000.000 |
|         | Page 1-5    |      |                    |                   |    |        | 1140.000   |
|         | Page 1-6    |      |                    |                   |    |        | 0.000      |
|         |             |      | 1-7                | To Ground Summary |    |        | 423590.000 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 2 - EARTHWORKS**

| Item No | Description  | Unit   | Estimated Quantity | Unit Rate          |    | Amount    |    |
|---------|--|--------|--------------------|--------------------|----|-----------|----|
|         |  |        |                    | R.O.               | Bz | R.O.      | Bz |
| 200     | <b>EARTHWORKS</b>  |        |                    |                    |    |           |    |
| 201     | <b>Clearing and Grubbing</b>                                     |        |                    |                    |    |           |    |
| 201.1   | Removal and delivery of trees of 300mm trunk diameter or greater | n.r.   | 87                 | 15.000             |    | 1305.000  |    |
| 202     | <b>Removal of Structures and Obstructions</b>                    |        |                    |                    |    |           |    |
| 202.1   | Removal of existing building (Shop, etc)                         | n.r.   | 4                  | 200.000            |    | 800.000   |    |
| 202.2   | Removal of misc. reinforced concrete structures                  | cu. m. | 28                 | 5.000              |    | 140.000   |    |
| 202.3   | Removal of pipe culvert (D=0.6,0.75,0.9)                         | lin.m. | 119                | 2.000              |    | 238.000   |    |
| 202.4   | Removal of asphaltic concrete pavement (100 mm thick)            | cu. m. | 5159               | 2.000              |    | 10318.000 |    |
| 202.5   | Removal of damaged steel safety barrier (Gurdrail)               | lin.m. | 3845               | 1.800              |    | 6921.000  |    |
|         |  |        | 2-1                | Carried to summary |    | 19722.000 |    |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 2 - EARTHWORKS**

| Item No | Description   | Unit   | Estimated Quantity | Unit Rate          |    | Amount   |    |
|---------|---|--------|--------------------|--------------------|----|----------|----|
|         |   |        |                    | R.O.               | Bz | R.O.     | Bz |
| 202.6   | Remove carefully and relocate sign boards and road signs (size)                                   | n.r.   | 63                 | 3.500              |    | 220.500  |    |
| 202.7   | Removal of damaged Irish crossing marker posts  | n.r.   | N/A                | 2.500              |    |          |    |
| 202.8   | Removal of damaged drainage protection works (gabions, conc. tiles, mortared riprap, dry rip rap) | cu. m. | N/A                | 3.500              |    |          |    |
| 202.9   | Removal of existing fences (wire mesh, chicken wire)  | lin.m. | 370                | 1.500              |    | 555.000  |    |
| 202.10  | Removal of existing fences (block or masonry wall)  | lin.m. | N/A                | 2.000              |    |          |    |
| 202.11  | Removal of existing box culvert (2 x 1 m)   | lin.m. | 252                | 5.000              |    | 1260.000 |    |
| 202.12  | Removal of existing interlocking tiles  | sq. m  | 1515               | 1.200              |    | 1818.000 |    |
| 202.13  | Removal of existing crush stone   | lin.m. | N/A                | 1.000              |    |          |    |
| 202.14  | Removal of existing plain concrete  | cu. m. | 173                | 2.000              |    | 346.000  |    |
| 202.15  | Removal of Curb Stone   | m      | 2894               | 1.500              |    | 4341.000 |    |
|         |   |        |                    | Carried to summary |    | 8540.500 |    |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 2 - EARTHWORKS**

| Item No | Description  | Unit   | Estimated Quantity | Unit Rate          |    | Amount     |
|---------|--|--------|--------------------|--------------------|----|------------|
|         |  |        |                    | R.O.               | Bz |            |
|         | <b>203 Earthworks Excavation</b>                       |        |                    |                    |    |            |
| 203.1   | Suitable excavation to embankment                      | cu. m. | 35330              | 0.600              |    | 21198.000  |
| 203.2   | Suitable excavation to waste                           | cu. m. | 8712               | 0.300              |    | 2613.600   |
| 203.3   | Unsuitable excavation to waste                         | cu. m. | N/A                | 0.400              |    |            |
| 203.4   | Borrow excavation to embankment                        | cu. m. | 62693              | 1.500              |    | 94039.500  |
| 203.5   | Extra over item 203.1, 2, 3 for excavation under water | cu. m. | N/A                | 3.000              |    |            |
|         | <b>206 Excavation and Backfilling for Structures</b>   |        |                    |                    |    |            |
| 206.1   | Structure excavation in soils to a depth of 2m         | cu. m. | 738                | 1.000              |    | 738.000    |
| 206.2   | Structure excavation in soils to a depth more than 2m  | cu. m. | N/A                | 1.700              |    |            |
|         |  | 2-3    |                    | Carried to summary |    | 118589.100 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 2 - EARTHWORKS**

| Item No | Description   | Unit   | Estimated Quantity | Unit Rate |    | Amount             |    |
|---------|---|--------|--------------------|-----------|----|--------------------|----|
|         |   |        |                    | R.O.      | Bz | R.O.               | Bz |
| 206.3   | Structural excavation in rock to a depth of 2m        | cu. m. | N/A                | 1.100     |    |                    |    |
| 206.4   | Structural excavation in rock to a depth more than 2m | cu. m. | N/A                | 2.600     |    |                    |    |
| 206.5   | Extra over 206.1,2,3,4 for excavation under water     | cu. m. | N/A                | 2.900     |    |                    |    |
|         |   |        |                    | 2-4       |    | Carried to summary |    |
|         |   |        |                    |           |    | 0.000              |    |

CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 2 - EARTHWORKS

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                  | Amount     |    |
|---------|-------------|------|--------------------|-----------|------------------|------------|----|
|         |             |      |                    | R.O.      | Bz               | R.O.       | Bz |
|         | SUMMARY     |      |                    |           |                  |            |    |
|         | Page 2-1    |      |                    |           |                  | 19722.000  |    |
|         | Page 2-2    |      |                    |           |                  | 8540.500   |    |
|         | Page 2-3    |      |                    |           |                  | 118589.100 |    |
|         | Page 2-4    |      |                    |           |                  | 0.000      |    |
|         |             |      |                    | 2-5       | To Grand Summary | 146851.600 |    |



**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 3 - GRANULAR AND STABILIZED SUBBASE, BASE COURSE, STABILIZED SUBGRADE**

| Item No | Description  | Unit   | Estimated Quantity | Unit Rate          |    | Amount    |
|---------|--|--------|--------------------|--------------------|----|-----------|
|         |  |        |                    | R.O.               | Bz |           |
|         | <b>300 GRANULAR AND STABILIZED SUBBASE, BASECOURSE AND STABILIZED SUBGRADE</b> |        |                    |                    |    |           |
|         | <b>302 Granular Subbase</b>  |        |                    |                    |    |           |
| 302.1   | Granular subbase (class B) (150 mm thick)                                      | cu. m. | 5276               | 2.000              |    | 10552.000 |
|         | <b>303 Aggregate Basecourse</b>  |        |                    |                    |    |           |
| 303.1   | Aggregate basecourse (class B) (300 mm thick)                                  | cu. m. | N/A                | 3.600              |    |           |
| 303.2   | Aggregate basecourse (class B) (250 mm thick)                                  | cu. m. | N/A                | 3.500              |    |           |
| 303.3   | Aggregate basecourse (class B) (200 mm thick)                                  | cu. m. | 8070               | 3.300              |    | 26631.000 |
| 303.4   | Aggregate basecourse (class B) (150 mm thick)                                  | cu. m. | 2253               | 3.000              |    | 6759.000  |
|         |  |        | 3-1                | Carried to summary |    | 43942.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 3 - GRANULAR AND STABILIZED SUBBASE, BASE COURSE, STABILIZED SUBGRADE

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                    | Amount |           |
|---------|-------------|------|--------------------|-----------|--------------------|--------|-----------|
|         |             |      |                    | R.O.      | Bz                 | R.O.   | Bz        |
|         | SUMMARY     |      |                    |           |                    |        | 43942.000 |
|         | Page 3-1    |      |                    |           |                    |        |           |
|         |             | 3-2  |                    |           | Carried to summary |        | 43942.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 4 - BITUMINOUS PAVEMENT

| Item No | Description  | Unit   | Estimated Quantity | Unit Rate          |    | Amount     |
|---------|--|--------|--------------------|--------------------|----|------------|
|         |  |        |                    | R.O.               | Bz |            |
|         | 400 BITUMINOUS PAVEMENT                                      |        |                    |                    |    |            |
|         | 401 Bituminous Prime Coat and Tack Coat                      |        |                    |                    |    |            |
| 401.1   | Bituminous prime coat (MC 70)                                | kg     | 52318              | 0.250              |    | 13079.500  |
| 401.2   | Bituminous tack coat (RC 250)                                | kg     | 10075              | 0.300              |    | 3022.500   |
|         | 402 Bituminous Basecourse                                    |        |                    |                    |    |            |
| 402.1   | Bituminous basecourse (class B) 70 mm.thick                  | cu. m. | 701                | 24.000             |    | 16824.000  |
| 402.2   | Bituminous basecourse (class B) 100 mm.thick                 | cu.m.  | 4035               | 28.000             |    | 112980.000 |
| 402.4   | Increase or decrease in bituminous content from nominal rate | kg     | rate only          | 0.050              |    |            |
|         |  | 4-1    |                    | Carried to summary |    | 145906.000 |

CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 4 - BITUMINOUS PAVEMENT

| Item No | Description   | Unit   | Estimated Quantity | Unit Rate |                    | Amount |           |
|---------|---|--------|--------------------|-----------|--------------------|--------|-----------|
|         |   |        |                    | R.O.      | Bz                 | R.O.   | Bz        |
|         | 405 Bituminous Wearing Course                             |        |                    |           |                    |        |           |
| 405.1   | Bituminous wearing course (class B) (50 mm thick)         | cu. m. | 3483               |           | 28.000             |        | 97524.000 |
| 405.2   | Increase or decrease in bitumen content from nominal rate | kg     | rate only          |           | 0.050              |        |           |
|         |   |        |                    | 4-2       | Carried to summary |        | 97524.000 |

CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 4 - BITUMINOUS PAVEMENT

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                    | Amount     |            |
|---------|-------------|------|--------------------|-----------|--------------------|------------|------------|
|         |             |      |                    | R.O.      | Bz                 | R.O.       | Bz         |
|         | SUMMARY     |      |                    |           |                    |            |            |
|         | Page 4-1    |      |                    |           |                    | 145906,000 |            |
|         | Page 4-2    |      |                    |           |                    | 97524,000  |            |
|         |             |      |                    | 4-3       | Carried to summary |            | 243430,000 |

**CONSTRUCTION OF FLYOVER AT**

**AL KHABRAH**

**BILL OF QUANTITIES**

**BILL 5 - CONCRETE AND CONCRETE STRUCTURE**

| Item No | Description   | Unit   | Estimated Quantity | Unit Rate |                    | Amount     |            |
|---------|---|--------|--------------------|-----------|--------------------|------------|------------|
|         |   |        |                    | R.O.      | Bz                 | R.O.       | Bz         |
|         | <b>500 CONCRETE AND CONCRETE STRUCTURE</b>                          |        |                    |           |                    |            |            |
|         | 504 Concrete for Structure  |        |                    |           |                    |            |            |
| 504.1   | Concrete Class 16/20 (OPC cement) Blinding, Gravity Wall            | cu. m. | 3144               | 30.000    |                    | 94320.000  |            |
| 504.2   | Concrete Class A 24/20 for retaining wall, abutment and piers (OPC) | cu.m   | 5244               | 35.000    |                    | 183540.000 |            |
| 504.3   | Concrete Class 32/20 for bridge deck, cross beam and joint          | cu.m   | 353                | 50.000    |                    | 17650.000  |            |
| 504.4   | Cast-in-Situ Concrete Class 24/20 for bridge deck for cantilever    | cu.m   | 1005               | 38.000    |                    | 38190.000  |            |
|         |   |        |                    |           | Carried to summary |            | 333700.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 5 - CONCRETE AND CONCRETE STRUCTURE

| Item No | Description  | Unit | Estimated Quantity | Unit Rate |                    | Amount |            |
|---------|--|------|--------------------|-----------|--------------------|--------|------------|
|         |  |      |                    | R.O.      | Bz                 | R.O.   | Bz         |
| 506.1   | 506 Prestressed Concrete for Bridge<br><u>Precast pre-stressed bridge beam reinforced concrete class AA40 including all reinforcement tendons, tension cable strands, approved anchorage points "Freyssinet" system or equal and approved sheaths, de-waterring pipes grouting in accordance with manufacturers recommendations, all complete and as detailed on tender drawings</u> |      |                    |           |                    |        |            |
|         | a) PS Box girders (Internal) 26 m long   | n.r. | 198                |           | 2,400.000          |        | 475200.000 |
|         | b) PS Box girders (External) 26 m long   | n.r. | 44                 |           | 2,700.000          |        | 118800.000 |
|         |  |      |                    | 5-2       | Carried to summary |        | 594000.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 5 - CONCRETE AND CONCRETE STRUCTURE

| Item No | Description  | Unit | Estimated Quantity | Unit Rate          |    | Amount      |
|---------|--|------|--------------------|--------------------|----|-------------|
|         |  |      |                    | R.O.               | Ez |             |
| 509     | Reinforcing Steel                                  |      |                    |                    |    |             |
| 509.1   | High yield steel bar reinforcement of any diameter | tone | 890                | 285.000            |    | 2533650.000 |
| 509.2   | Mild steel bar reinforcement of any diameter       | tone | N/A                | 300.000            |    |             |
| 509.3   | Mesh reinforcement of any size                     | tone | N/A                | 400.000            |    |             |
|         |  |      | 5-3                | Carried to summary |    | 2533650.000 |



**CONSTRUCTION OF FLYOVER AT  
 AL KHABRAH  
 BILL OF QUANTITIES  
 BILL 5 - CONCRETE AND CONCRETE STRUCTURE**

| Item No | Description    | Unit | Estimated Quantity | Unit Rate |                    | Amount      |
|---------|----------------|------|--------------------|-----------|--------------------|-------------|
|         |                |      |                    | R.O.      | Bz                 |             |
|         | <b>SUMMARY</b> |      |                    |           |                    |             |
|         | Page 5-1       |      |                    |           |                    | 333700.000  |
|         | Page 5-2       |      |                    |           |                    | 594000.000  |
|         | Page 5-3       |      |                    |           |                    | 253650.000  |
|         |                |      |                    | 5-4       | Carried to summary | 1181350.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 6 - STRUCTURAL STEEL AND OTHER METALWORK

| Item No | Description                              | Unit   | Estimated Quantity | Unit Rate |        | Amount |           |
|---------|--|--------|--------------------|-----------|--------|--------|-----------|
|         |  |        |                    | R.O.      | Bz     | R.O.   | Bz        |
|         | 600 STRUCTURAL STEEL AND OTHER METALWORK |        |                    |           |        |        |           |
|         | 603 Bridge Parapets                      |        |                    |           |        |        |           |
| 603.1   | Bridge Handrails (Aluminum) (H=500 mm)   | lin.m. | 2164               |           | 45.000 |        | 97380.000 |
|         |  | 6-1    | Carried to summary |           |        |        | 97380.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 6 - STRUCTURAL STEEL AND OTHER METALWORK

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                    | Amount |           |
|---------|-------------|------|--------------------|-----------|--------------------|--------|-----------|
|         |             |      |                    | R.O.      | Bz                 | R.O.   | Bz        |
|         | SUMMARY     |      |                    |           |                    |        |           |
|         | Page 6-1    |      |                    |           |                    |        | 97380.000 |
|         |             |      |                    | 6-2       | Carried to summary |        | 97380.000 |

**CONSTRUCTION OF FLYOVER AT**

**AL KHABRAH**

**BILL OF QUANTITIES**

**BILL 8 - DRAINAGE AND SERVICE DUCTS**

| Item No  | Description   | Unit  | Estimated Quantity | Unit Rate |                    | Amount   |
|--|---|-------|--------------------|-----------|--------------------|----------|
|  |   |       |                    | R.O.      | Ez                 |          |
| <b>800 DRAINAGE AND SERVICE DUCTS</b>  |   |       |                    |           |                    |          |
| <b>801 Pipe Culverts</b>   |   |       |                    |           |                    |          |
| 801.1  | Reinforced concrete pipe culvert ( 600 mm. dia.)  | lin.m | 198                | 35.000    |                    | 6930.000 |
| 801.2  | Reinforced concrete pipe culvert ( 750 mm. dia.)  | lin.m | N/A                | 45.000    |                    |          |
| <b>802 Reinforced Concrete Box Culverts, Box Culverts and Pipe Culverts Headwalls, Wingwalls and Aprons (SRP cement)</b> |   |       |                    |           |                    |          |
| 802.1  | Concrete (Class 24/20), Box Culverts, Box Culverts and Pipe Culverts Headwalls, Wingwalls, Wingwalls and Aprons (SRP Cement), all complete and as detailed on drawing |       |                    |           |                    |          |
| 802.1.1  | Box culvert 2 x 1 m 1 cell  | lin.m | N/A                | 60.000    |                    |          |
| 802.1.2  | Box culvert 2 x 1 m 2 cell  | lin.m | N/A                | 110.000   |                    |          |
| 802.1.3  | Box culvert 2 x 1 m 3 cell  | lin.m | 17                 | 150.000   |                    | 2550.000 |
|  |   |       |                    | 8-1       | Carried to summary | 9480.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTS

| Item No | Description   | Unit  | Estimated Quantity | Unit Rate              |    | Amount    |    |
|---------|---|-------|--------------------|------------------------|----|-----------|----|
|         |   |       |                    | R.O.                   | Bz | R.O.      | Bz |
| 804.1   | 804 Catch Basins, Catch Pits, Manholes, Curb Inlets, Ditch Inlets and Outlets<br><br>Reinforced concrete catch pit comprising excavation, backfilling, disposal, 100 mm thick plain in-situ sulphate resisting concrete class (12/20) blinding, concrete class (24/20) for structure, all complete and as detailed on drawing | n.r.  | 4                  | 180.000                |    | 720.000   |    |
| 804.2   | Reinforced concrete gullies comprising excavation, backfilling, disposal, 150 mm bed and walls of reinforced sulphate resisting concrete class (24/20) all complete and as detailed on drawings<br><br>Gullies 300 x 300 mm   | lin.m | 1000               | 25.000                 |    | 25000.000 |    |
|         |   |       |                    | 8-2 Carried to summary |    | 25720.000 |    |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 8 - DRAINAGE AND SERVICE DUCTS**

| Item No | Description   | Unit   | Estimated Quantity | Unit Rate |    | Amount             |    |
|---------|---|--------|--------------------|-----------|----|--------------------|----|
|         |   |        |                    | R.O.      | Bz | R.O.               | Bz |
|         | 805 Water proofing for structure  |        |                    |           |    |                    |    |
| 805.1   | Waterproofing membrane  | sq.m.  | N/A                | 1.800     |    |                    |    |
| 805.2   | Mastic asphalt waterproofing  | sq.m.  | N/A                | 8.000     |    |                    |    |
| 805.3   | Bituminous paint  | sq.m.  | 3000               | 0.350     |    | 1050.000           |    |
|         | 807 Service Ducts   |        |                    |           |    |                    |    |
| 807.1   | Service duct (A.C. 150 mm dia. -1 way with concrete surround), including duct markers | lin.m. | N/A                | 2.200     |    |                    |    |
| 807.1.1 | Service duct (A.C. 150 mm dia. -2 way with concrete surround), including duct markers | lin.m. | 276                | 4.000     |    | 1104.000           |    |
| 807.2   | Extra over for excavation in rock for service ducte                                   | cu.m.  | N/A                |           |    |                    |    |
|         |   |        |                    | 8-3       |    | Carried to summary |    |
|         |   |        |                    |           |    | 2154.000           |    |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTE

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                    | Amount    |           |
|---------|-------------|------|--------------------|-----------|--------------------|-----------|-----------|
|         |             |      |                    | R.O.      | Bz                 | R.O.      | Bz        |
|         | SUMMARY     |      |                    |           |                    |           |           |
|         | Page 8-1    |      |                    |           |                    | 9480.000  |           |
|         | Page 8-2    |      |                    |           |                    | 25720.000 |           |
|         | Page 8-3    |      |                    |           |                    | 2154.000  |           |
|         |             |      |                    |           |                    |           |           |
|         |             | 8-4  |                    |           | Carried to summary |           | 37354.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 9 - SLOPE PROTECTION AND STABILISATION

| Item No                                | Description  | Unit  | Estimated Quantity | Unit Rate |                    | Amount   |           |
|--|--|-------|--------------------|-----------|--------------------|----------|-----------|
|  |  |       |                    | R.O.      | Bz                 | R.O.     | Bz        |
| 900 SLOPE PROTECTION AND STABILISATION |  |       |                    |           |                    |          |           |
| 901                                    | Riprap   |       |                    |           |                    |          |           |
| 901.2                                  | Mortared stone riprap (Class A), in Irish Crossing         | cu.m. | N/A                | 13.000    |                    |          |           |
| 901.2.1                                | Mortared stone riprap (Class A), other than Irish Crossing | cu.m. | 202                | 16.000    |                    | 3232.000 |           |
| 902                                    | Gabions  |       |                    |           |                    |          |           |
| 902.1                                  | Gabions, 200 mm thick, galvanized steel wire               | sq.m  | 836                | 10.000    |                    | 8360.000 |           |
| 902.1.1                                | Gabions, 300 mm thick, galvanised steel wire               | sq.m  | N/A                | 14.000    |                    |          |           |
|  |  |       |                    | 9-1       | Carried to summary |          | 11592.000 |



CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 9 - SLOPE PROTECTION AND STABILISATION

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                    | Amount |           |
|---------|-------------|------|--------------------|-----------|--------------------|--------|-----------|
|         |             |      |                    | R.O.      | Bz                 | R.O.   | Bz        |
|         | SUMMARY     |      |                    |           |                    |        |           |
|         | Page 9-1    |      |                    |           |                    |        | 11592.000 |
|         |             | 9-2  |                    |           | Carried to summary |        | 11592.000 |

CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 10 - PILING

| Item No | Description   | Unit  | Estimated Quantity | Unit Rate |        | Amount             |            |
|---------|---|-------|--------------------|-----------|--------|--------------------|------------|
|         |   |       |                    | R.O.      | Bz     | R.O.               | Bz         |
|         | 1000 PILING   |       |                    |           |        |                    |            |
|         | 1001 Piling   |       |                    |           |        |                    |            |
| 1001.1  | Reverse Piling Method or equivalent Diameter = 600 mm including setting up of piles, driving and testing, all complete and as detailed on tender drawings | lin.m | 7808               |           | 30,000 |                    | 234240,000 |
|         |   |       |                    |           |        | Carried to summary | 234240,000 |
|         |   |       |                    |           |        | 10-1               |            |

CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 10 - PILING

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                    | Amount |            |
|---------|-------------|------|--------------------|-----------|--------------------|--------|------------|
|         |             |      |                    | R.O.      | Bz                 | R.O.   | Bz         |
|         | SUMMARY     |      |                    |           |                    |        |            |
|         | Page 10-1   |      |                    |           |                    |        | 234240.000 |
|         |             | 10-2 |                    |           | Carried to summary |        | 234240.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 11 - BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEAL AND FILLERS

| Item No  | Description  | Unit | Estimated Quantity | Unit Rate        |    | Amount    |    |
|----------|--|------|--------------------|------------------|----|-----------|----|
|          |  |      |                    | R.O.             | Bz | R.O.      | Bz |
|          | 1100 BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEALS AND FILLERS  |      |                    |                  |    |           |    |
|          | 1101 Bridge Bearings   |      |                    |                  |    |           |    |
| 1101.1   | Synthetic Rubber Shoe 460 x 360 x 80 mm including anchor bar, cap, filler reinforcing bar, spiral bar and shrinkage mortar | n.r. | 484                | 40.000           |    | 19360.000 |    |
|          | 1102 Bridge Expansion Joints   |      |                    |                  |    |           |    |
| 1102.1   | Bridge expansion joint Movement Range W=50 mm  | m    | 44                 | 150.000          |    | 6600.000  |    |
| 1102.1.1 | Bridge expansion joint Movement Range W=100 mm   | m    | 222                | 280.000          |    | 62160.000 |    |
|          |  |      | 11-1               | To Grand Summary |    | 88120.000 |    |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 11 - BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEAL AND FILLERS

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                  | Amount    |
|---------|-------------|------|--------------------|-----------|------------------|-----------|
|         |             |      |                    | R.O.      | Bz               |           |
|         | SUMMARY     |      |                    |           |                  | 88120.000 |
|         | Page 11-1   |      |                    |           |                  |           |
|         |             |      |                    | 11-2      | To Grand Summary | 88120.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 13 - SAFETY BARRIERS, DELINEATORS AND FENCES

| Item No  | Description   | Unit   | Estimated Quantity | Unit Rate          |    | Amount    |
|----------|---|--------|--------------------|--------------------|----|-----------|
|          |   |        |                    | R.O.               | Bz |           |
|          | 1300 SAFETY BARRIERS, DELINEATORS AND FENCE                 |        |                    |                    |    |           |
|          | 1301 Corrugated Steel Beam Safety Barrier                   |        |                    |                    |    |           |
| 1301.1.1 | Safety barrier beam (Type-A) including posts and end anchor | lin.m. | 1822               | 12.000             |    | 21864.000 |
| 1301.1.2 | Safety barrier beam (Type-C) including posts and end anchor | lin.m  | 1340               | 13.000             |    | 17420.000 |
|          | 1302 Reflectorised Markers for Safety Barriers              |        |                    |                    |    |           |
| 1303.1   | Reflectorised markers attached to guardrail                 | n.r.   | 210                | 8.000              |    | 1680.000  |
| 1303.2   | Reflectorised markers attached to concrete                  | n.r.   | N/A                |                    |    |           |
|          |   | 13-1   |                    | Carried to summary |    | 40964.000 |

CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 13 - SAFETY BARRIERS, DELINEATORS AND FENCES

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                    | Amount    |
|---------|-------------|------|--------------------|-----------|--------------------|-----------|
|         |             |      |                    | R.O.      | Bz                 |           |
|         | SUMMARY     |      |                    |           |                    |           |
|         | Page 13-1   |      |                    |           |                    | 40964.000 |
|         |             | 13-2 |                    |           | Carried to summary | 40964.000 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 14 - HIGHWAY SIGNS AND ROAD MARKING**

| Item No  | Description  | Unit | Estimated<br>Quantity | Unit Rate |                    | Amount |           |
|----------|--|------|-----------------------|-----------|--------------------|--------|-----------|
|          |  |      |                       | R.O.      | Bz                 | R.O.   | Bz        |
|          | <b>1400 HIGHWAY SIGNS AND ROAD MARKING</b>             |      |                       |           |                    |        |           |
|          | <b>1401 Highway Signs</b>                              |      |                       |           |                    |        |           |
| 1401.1   | Highway sign, triangular, size (900 mm)                | n.r. | 17                    |           | 40.000             |        | 680.000   |
| 1401.2   | Highway sign, circular, diameter (900 mm)              | n.r. | 23                    |           | 50.000             |        | 1150.000  |
| 1401.3   | Highway sign, rectangular, (600 x 2400, 750 x 1400 mm) | n.r. | 14                    |           | 200.000            |        | 2800.000  |
| 1401.4   | Highway sign, square                                   | n.r. | 17                    |           | 50.000             |        | 850.000   |
| 1401.6.1 | Overhead sign post and support assembling cantilever   | n.r. | 4                     |           | 2.000.000          |        | 8000.000  |
| 1401.6.2 | Overhead sign post and support assembling gantry       | n.r. | 2                     |           | 10.000.000         |        | 20000.000 |
|          |  | 14-1 |                       |           | Carried to summary |        | 33480.000 |



CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 14 - HIGHWAY SIGNS AND ROAD MARKING

| Item No | Description  | Unit  | Estimated Quantity | Unit Rate          |    | Amount    |
|---------|--|-------|--------------------|--------------------|----|-----------|
|         |  |       |                    | R.O.               | Bz |           |
| 1402.1  | 1402 Road Markings<br>Traffic lines (Mechanically sprayed) | sq. m | 2402               | 1.500              |    | 3603.000  |
| 1402.2  | Special markings (Hand sprayed)                            | sq. m | 593                | 5.000              |    | 2965.000  |
| 1402.3  | Curb painting (Black and yellow)                           | sq. m | 1637               | 1.600              |    | 2619.200  |
| 1402.4  | Reflecting road studs type red                             | n.r.  | 1123               | 4.410              |    | 4952.430  |
| 1402.5  | Non-reflecting road studs                                  | n.r.  |                    |                    |    |           |
| 1402.6  | Reflecting ceramic buttons                                 | n.r.  |                    |                    |    |           |
| 1402.7  | Non-reflecting ceramic buttons                             | n.r.  |                    |                    |    |           |
|         |  |       | 14-2               | Carried to summary |    | 14139.630 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 14 - HIGHWAY SIGNS AND ROAD MARKING

| Item No | Description | Unit | Estimated Quantity | Unit Rate |                  | Amount    |           |
|---------|-------------|------|--------------------|-----------|------------------|-----------|-----------|
|         |             |      |                    | R.O.      | Bz               | R.O.      | Bz        |
|         | SUMMARY     |      |                    |           |                  |           |           |
|         | Page 14-1   |      |                    |           |                  | 33480,000 |           |
|         | Page 14-2   |      |                    |           |                  | 14139,630 |           |
|         |             |      |                    | 14-3      | To Grand Summary |           | 47619,630 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 15 - ELECTRICAL INSTALLATION**

| Item No | Description   | Unit     | Estimated Quantity | Unit Rate          |    | Amount    |
|---------|---|----------|--------------------|--------------------|----|-----------|
|         |   |          |                    | R.O.               | Bz |           |
|         | <b>1500 ELECTRICAL INSTALLATION</b>                   |          |                    |                    |    |           |
|         | 1502 Medium Voltage Switching Stations                | prov sum |                    |                    |    | 50000.000 |
| 1502.1  | Medium Voltage Switching Stations                     | n.r.     |                    |                    |    |           |
|         | <b>1503 Package Sub-stations</b>                      |          |                    |                    |    |           |
| 1503.1  | Package sub-station                                   | n.r.     |                    |                    |    |           |
|         | <b>1504 Package Medium Voltage Switching Stations</b> |          |                    |                    |    |           |
| 1504.1  | Packing medium voltage switching station              | n.r.     |                    |                    |    |           |
|         |   |          | 15-1               | Carried to summary |    | 50000.000 |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 15 - ELECTRICAL INSTALLATION

| Item No | Description  | Unit   | Estimated Quantity | Unit Rate |                    | Amount |    |
|---------|--|--------|--------------------|-----------|--------------------|--------|----|
|         |  |        |                    | R.O.      | Bz                 | R.O.   | Bz |
|         | 1505 33kV and 11kV Pole Mounted Transformer Stations |        |                    |           |                    |        |    |
| 1505.1  | 33kV pole mounted transformer station                | n.r.   |                    |           |                    |        |    |
| 1505.2  | 11kV pole mounted transformer station                | n.r.   |                    |           |                    |        |    |
|         | 1506 Feeder Pillars                                  |        |                    |           |                    |        |    |
| 1506.1  | Feeder pillar  | n.r.   |                    |           |                    |        |    |
|         | 1507 Cables  |        |                    |           |                    |        |    |
| 1507.1  | Cable (type) (size)                                  | lin.m. |                    |           |                    |        |    |
|         |  |        |                    | 15-2      | Carried to summary |        |    |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 15 - ELECTRICAL INSTALLATION**

| Item No | Description  | Unit | Estimated Quantity | Unit Rate |                    | Amount |
|---------|--|------|--------------------|-----------|--------------------|--------|
|         |  |      |                    | R.O.      | Bz                 |        |
|         | 1508 Road Lighting Masts and Column                  |      |                    |           |                    |        |
| 1508.1  | High mast assembly (type) (height)                   | n.r. |                    |           |                    |        |
| 1508.2  | Lighting columns (type) (number of arms) (Height)    | n.r. |                    |           |                    |        |
|         | 1509 Traffic Sign Illumination                       |      |                    |           |                    |        |
| 1509.1  | Overhead sign lighting (gantry or cantilever ref no) | n.r. |                    |           |                    |        |
| 1509.2  | Roadside sign lighting (sign ref no)                 | n.r. |                    |           |                    |        |
|         | 1510 Recessed Lighting                               |      |                    |           |                    |        |
| 1510.1  | Recessed lighting (type)                             | n.r. |                    |           |                    |        |
|         |  |      |                    | 15-3      | Carried to summary |        |

CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 15 - ELECTRICAL INSTALLATION

| Item No              | Description                                 | Unit     | Estimated Quantity | Unit Rate |                    | Amount |
|----------------------|---|----------|--------------------|-----------|--------------------|--------|
|                      |   |          |                    | R.O.      | Bz                 |        |
| 1511 Traffic Signals |   |          |                    |           |                    |        |
| 1511.1               | Traffic signal installation (location)      | lump sum |                    |           |                    |        |
| 1512 Earthing        |   |          |                    |           |                    |        |
| 1512.1               | Twin rod earthing installation (location)   | n.r.     |                    |           |                    |        |
| 1512.2               | Single rod earthing installation (location) | n.r.     |                    |           |                    |        |
|                      |   |          |                    | 15-4      | Carried to summary |        |

CONSTRUCTION OF FLYOVER AT

AL KHABRAH

BILL OF QUANTITIES

BILL 15 - ELECTRICAL INSTALLATION

| Item No | Description     | Unit     | Estimated Quantity | Unit Rate |    | Amount           |           |
|---------|-----------------|----------|--------------------|-----------|----|------------------|-----------|
|         |                 |          |                    | R.O.      | Bz | R.O.             | Bz        |
|         | SUMMARY         |          |                    |           |    |                  |           |
|         | Page 15-1       |          |                    |           |    |                  |           |
|         | Page 15-2       |          |                    |           |    |                  |           |
|         | Page 15-3       |          |                    |           |    |                  |           |
|         | Page 15-4       |          |                    |           |    |                  |           |
|         | Provisional Sum | Prov Sum |                    |           |    |                  | 50000.000 |
|         |                 | 15-5     |                    |           |    | To Grand Summary | 50000.000 |

CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 17 - UTILITIES

| Item No  | Description  | Unit     | Estimated Quantity | Unit Rate |                    | Amount    |    |
|----------|--|----------|--------------------|-----------|--------------------|-----------|----|
|          |  |          |                    | R.O.      | Bz                 | R.O.      | Bz |
| 1700     | UTILITIES  |          |                    |           |                    |           |    |
| 1701     | Utilities  |          |                    |           |                    |           |    |
| 1701.1   | Remove carefully and relocate low voltage electric poles, telephone poles, including removal of lines, excavation, backfilling and other related works as directed by the Engineer | prov sum |                    |           |                    | 50000.000 |    |
| 1701.1.1 | Protect of existing utilities crossing the roadway as shown in Drawing, or as directed by the Engineer   | lin.m.   |                    |           |                    |           |    |
|          |  |          |                    | 17-1      | Carried to summary | 50000.000 |    |



CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 17 - UTILITIES

| Item No | Description | Unit     | Estimated Quantity | Unit Rate |                  | Amount |           |
|---------|-------------|----------|--------------------|-----------|------------------|--------|-----------|
|         |             |          |                    | R.O.      | Bz               | R.O.   | Bz        |
|         | SUMMARY     |          |                    |           |                  |        |           |
|         | Page 17-1   | Prov Sum |                    |           |                  |        | 50000.000 |
|         |             | 17-2     |                    |           | To Grand Summary |        | 50000.000 |

**CONSTRUCTION OF FLYOVER AT**

**AL KHABRAH**

**BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No  | Description         | Unit | Estimated Quantity | Unit Rate          |       | Amount |          |
|--|---------------------|------|--------------------|--------------------|-------|--------|----------|
|  |                     |      |                    | R.O.               | Bz    | R.O.   | Bz       |
| <b>A. WAGES</b>  |                     |      |                    |                    |       |        |          |
| These include proper wages, all used allowance, medical expense and all other charges provided for by local laws |                     |      |                    |                    |       |        |          |
| A.1  | Supervisor          | hour | 100                |                    | 4.000 |        | 400.000  |
| A.2  | Site Surveyor       | hour | 1000               |                    | 3.500 |        | 3500.000 |
| A.3  | Foreman             | hour | 480                |                    | 3.200 |        | 1536.000 |
| A.4  | 1st Class Operator  | hour | 480                |                    | 1.100 |        | 528.000  |
| A.5  | 2nd Class Operator  | hour | 100                |                    | 0.950 |        | 95.000   |
| A.6  | Mechanic            | hour | 190                |                    | 1.000 |        | 190.000  |
| A.7  | Driver              | hour | 480                |                    | 1.000 |        | 480.000  |
| A.8  | Skilled Labour      | hour | 1000               |                    | 0.650 |        | 650.000  |
| A.9  | Semi Skilled Labour | hour | 1000               |                    | 0.600 |        | 600.000  |
|  |                     |      | 19-1               | Carried to Summary |       |        | 7979.000 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No | Description     | Unit | Estimated Quantity | Unit Rate          |    | Amount  |         |
|---------|-----------------|------|--------------------|--------------------|----|---------|---------|
|         |                 |      |                    | R.O.               | Bz | R.O.    | Bz      |
| A.10    | Ordinary Labour | hour | 1000               | 0.550              |    | 550.000 |         |
| A.11    | Mason           | hour | 200                | 0.650              |    | 130.000 |         |
| A.12    | Painter         | hour | 100                | 0.750              |    | 75.000  |         |
| A.13    | Carpenter       | hour | 200                | 0.650              |    | 130.000 |         |
| A.14    | Steel Fitter    | hour | 100                | 0.650              |    | 65.000  |         |
| A.15    | Electrician     | hour | 20                 | 0.850              |    | 17.000  |         |
|         |                 |      | 19-2               | Carried to Summary |    |         | 967.000 |

**CONSTRUCTION OF FLYOVER AT**

**AL KHABRAH**

**BILL OF QUANTITIES**

**BILL 19 - DAYWORKS**

| Item No  | Description                                 | Unit | Estimated Quantity | Unit Rate          |        | Amount |         |
|--|---|------|--------------------|--------------------|--------|--------|---------|
|  |   |      |                    | R.O.               | Bz     | R.O.   | Bz      |
| <b>B. OPERATING EQUIPMENT ON SITE</b>  |   |      |                    |                    |        |        |         |
| These rate include : fuel and lubricants cost, charges for depreciation interest, repairs, maintenance, spare parts, tyres, insurance, etc.<br>Payment will not be made for mechanics or maintenance time which shall be include in and spread over the rates. |   |      |                    |                    |        |        |         |
| B.1  | Motorgrader from 100 hp up to 120 hp        | hour | 5                  |                    | 9.500  |        | 47.500  |
| B.2  | Motorgrader from 120 hp up to 150 hp        | hour | 11                 |                    | 11.500 |        | 126.500 |
| B.3  | Tractor from 60 to 100 hp                   | hour | 5                  |                    | 4.000  |        | 20.000  |
| B.4  | Bulldozer with ripper from 100 hp to 150 hp | hour | 5                  |                    | 7.000  |        | 35.000  |
| B.5  | Bulldozer with ripper from 150 hp to 200 hp | hour | 7                  |                    | 8.000  |        | 56.000  |
| B.6  | Bulldozer with ripper from 200 hp to 250 hp | hour | 6                  |                    | 18.000 |        | 108.000 |
| B.7  | Bulldozer with ripper from 250 hp to 300 hp | hour | 4                  |                    | 19.500 |        | 78.000  |
| B.8  | Wheel tractor up to 50 hp                   | hour | 10                 |                    | 4.000  |        | 40.000  |
|  |   |      |                    | Carried to Summary |        |        | 511.000 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No | Description   | Unit | Estimated Quantity | Unit Rate          |    | Amount  |    |
|---------|---|------|--------------------|--------------------|----|---------|----|
|         |   |      |                    | R.O.               | Bz | R.O.    | Bz |
| B.9     | Wheel tractor over 50 hp                                  | hour | 10                 | 7.000              |    | 70.000  |    |
| B.10    | Motor scraper capacity up to 18 cu.m.                     | hour | 10                 | 19.000             |    | 190.000 |    |
| B.11    | Motor scraper capacity from 18 to 24 cu.m.                | hour | 10                 | 19.000             |    | 190.000 |    |
| B.12    | Sheeps foot roller, from 5 tonnes to 10 tonnes            | hour | 10                 | 5.000              |    | 50.000  |    |
| B.13    | Grid roller   | hour | 4                  | 7.000              |    | 28.000  |    |
| B.14    | Vibratory compactor with prime mover up to 5 tonnes       | hour | 4                  | 5.000              |    | 20.000  |    |
| B.15    | Vibratory compactor with prime mover from 5 to 10 tonnes  | hour | 4                  | 7.000              |    | 28.000  |    |
| B.16    | Pneumatic compactor with prime mover from 30 to 50 tonnes | hour | 4                  | 7.000              |    | 28.000  |    |
| B.17    | Pneumatic self-propelled rollers from 15 to 20 tonnes     | hour | 8                  | 4.500              |    | 36.000  |    |
| B.18    | Tandem roller up to 8 tonnes                              | hour | 24                 | 4.500              |    | 108.000 |    |
| B.19    | Tandem roller from 8 to 12 tonnes                         | hour | 8                  | 5.000              |    | 40.000  |    |
|         |   |      | 19.4               | Carried to Summary |    | 788.000 |    |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No | Description   | Unit | Estimated Quantity | Unit Rate          |    | Amount   |    |
|---------|---|------|--------------------|--------------------|----|----------|----|
|         |   |      |                    | R.O.               | Bz | R.O.     | Bz |
| B.20    | Triaxle roller from 10 to 15 tonnes                                 | hour | 24                 | 5.000              |    | 120.000  |    |
| B.21    | Light frog-rammer 0.1 tonne   | hour | 20                 | 0.500              |    | 10.000   |    |
| B.22    | Heavy frog-rammer 0.5 tonne   | hour | 20                 | 0.700              |    | 14.000   |    |
| B.23    | Wheel loader 1.2 to 1.6 cu.m.                                       | hour | 20                 | 9.500              |    | 190.000  |    |
| B.24    | Wheel loader 1.6 to 2.0 cu.m.                                       | hour | 20                 | 10.000             |    | 200.000  |    |
| B.25    | Wheel loader 2.0 to 2.5 cu.m.                                       | hour | 20                 | 11.000             |    | 220.000  |    |
| B.26    | Excavator up to 0.8 cu.m.   | hour | 15                 | 5.500              |    | 82.500   |    |
| B.27    | Excavator from 0.8 to 1.2 cu.m.                                     | hour | 15                 | 7.500              |    | 112.500  |    |
| B.28    | Bituminous mixing plant with batching apparatus up to 80 t/h.       | hour | 5                  | 18.000             |    | 90.000   |    |
| B.29    | Bituminous mixing plant with batching apparatus from 80 to 150 t/h. | hour | 5                  | 23.000             |    | 115.000  |    |
| B.30    | Finisher up to 80 t/h.  | hour | 10                 | 9.000              |    | 90.000   |    |
|         |   |      | 19-5               | Carried to Summary |    | 1244.000 |    |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No | Description   | Unit | Estimated Quantity | Unit Rate          |    | Amount  |
|---------|---|------|--------------------|--------------------|----|---------|
|         |   |      |                    | R.O.               | Bz | R.O.    |
| B.31    | Finisher from 80 t/h to 120 t/h.                              | hour | 10                 | 10.000             |    | 100.000 |
| B.32    | Bitumen sprayer up to 6 tonnes                                | hour | 10                 | 5.000              |    | 50.000  |
| B.33    | Tanker truck up to 6 cu.m.                                    | hour | 15                 | 5.000              |    | 75.000  |
| B.34    | Dump truck up to 10 tonnes                                    | hour | 17                 | 5.500              |    | 93.500  |
| B.35    | Dump truck from 10 to 15 tonnes                               | hour | 20                 | 6.000              |    | 120.000 |
| B.36    | Screening plant from 80 to 100 t/h.                           | hour | 5                  | 16.000             |    | 80.000  |
| B.37    | Crushing plant from 40 to 60 t/h.                             | hour | 5                  | 20.000             |    | 100.000 |
| B.38    | Crushing plant with primary and secondary from 60 to 100 t/h. | hour | 5                  | 30.000             |    | 150.000 |
| B.39    | Air compressor up to 6000 l/m.                                | hour | 15                 | 1.500              |    | 22.500  |
| B.40    | Air compressor over 6000 l/m.                                 | hour | 15                 | 2.000              |    | 30.000  |
| B.41    | Mechanical broom  | hour | 7                  | 4.000              |    | 28.000  |
|         |   |      | 19-6               | Carried to Summary |    | 849.000 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No | Description  | Unit | Estimated Quantity | Unit Rate          |    | Amount  |    |
|---------|--|------|--------------------|--------------------|----|---------|----|
|         |  |      |                    | R.O.               | Bz | R.O.    | Bz |
| B.42    | Power water pump                                   | hour | 118                | 0.700              |    | 82.600  |    |
| B.43    | Steel cutting machine                              | hour | 5                  | 0.800              |    | 4.000   |    |
| B.44    | Steel bending machine                              | hour | 5                  | 1.200              |    | 6.000   |    |
| B.45    | Belt conveyor                                      | hour | 5                  | 7.000              |    | 35.000  |    |
| B.46    | Concrete mixer up to 0.5 cu.m.                     | hour | 10                 | 2.000              |    | 20.000  |    |
| B.47    | Concrete mixer over 0.5 cu.m.                      | hour | 12                 | 4.000              |    | 48.000  |    |
| B.48    | Automatic concrete batch plant without mixing drum | hour | 5                  | 7.500              |    | 37.500  |    |
| B.49    | Transmixer up to 5 cu.m.                           | hour | 10                 | 6.500              |    | 65.000  |    |
| B.50    | Concrete vibrators                                 | hour | 59                 | 0.150              |    | 8.850   |    |
| B.51    | Crane up to 5 tonnes.                              | hour | 9                  | 4.500              |    | 40.500  |    |
| B.52    | Crane with broom and jib 5 to 10 tonnes            | hour | 7                  | 8.000              |    | 56.000  |    |
|         |  |      | 19.7               | Carried to Summary |    | 403.450 |    |



**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No | Description                            | Unit | Estimated Quantity | Unit Rate          |    | Amount  |    |
|---------|--|------|--------------------|--------------------|----|---------|----|
|         |  |      |                    | R.O.               | Bz | R.O.    | Bz |
| B.53    | Crane with boom and jib over 10 tonnes | hour | 7                  | 11.000             |    | 77.000  |    |
| B.54    | Generator 60 kw                        | hour | 5                  | 1.500              |    | 7.500   |    |
| B.55    | Generator 75 kw                        | hour | 5                  | 1.800              |    | 9.000   |    |
| B.56    | Drilling equipment                     | hour | 5                  | 0.200              |    | 1.000   |    |
| B.57    | Generator 100 kw                       | hour | 5                  | 3.000              |    | 15.000  |    |
| B.58    | Generator 150 kw                       | hour | 5                  | 4.000              |    | 20.000  |    |
| B.59    | Generator 200 kw                       | hour | 5                  | 5.000              |    | 25.000  |    |
| B.60    | Gravel strewer                         | hour | 5                  | 10.000             |    | 50.000  |    |
|         |  |      | 19-8               | Carried to Summary |    | 204.500 |    |

**CONSTRUCTION OF FLYOVER AT**

**AL KHABRAH**

**BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No  | Description   | Unit  | Estimated Quantity | Unit Rate |    | Amount             |    |
|--|---|-------|--------------------|-----------|----|--------------------|----|
|  |   |       |                    | R.O.      | Bz | R.O.               | Bz |
| <b>C. MATERIALS</b>  |   |       |                    |           |    |                    |    |
| These rates include all the charges for the supply of the materials, loading, transport to site, unloading and stores as well as all the charges provided for in the General and Special Specifications and in the Contract. |   |       |                    |           |    |                    |    |
| C.1  | Aggregate for granular sub-base course in accordance with the General and Special Specifications, in place as specified.        | cu.m. | 50                 | 1.000     |    | 50.000             |    |
| C.2  | Aggregate for granular aggregate base course in accordance with the General and Special Specifications, in place as specified.  | cu.m. | 25                 | 2.000     |    | 50.000             |    |
| C.3  | Aggregate for bituminous base course in accordance with the General and Special Specifications, near the asphalt plant, in bulk | cu.m. | 50                 | 2.000     |    | 100.000            |    |
| C.4  | Fine aggregate for concrete, in accordance with the General and Special Specifications, in place, in bulk                       | cu.m. | 25                 | 2.000     |    | 50.000             |    |
| C.5  | Coarse aggregates for concrete, in accordance with the General and Special specifications, in place, in bulk                    | cu.m. | 50                 | 1.200     |    | 60.000             |    |
|  |   |       |                    | 19-9      |    | Carried to Summary |    |
|  |   |       |                    |           |    | 310.000            |    |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No | Description  | Unit  | Estimated Quantity | Unit Rate |                    | Amount |         |
|---------|--|-------|--------------------|-----------|--------------------|--------|---------|
|         |  |       |                    | R.O.      | Bz                 | R.O.   | Bz      |
| C.6     | Stone for drainage, masonry and slope protection, in accordance with the General and Special Specifications in place | cu.m. | 25                 |           | 2.500              |        | 62.500  |
| C.7     | Asphalt cement, grade 60-70 on site  | ton   | 1                  |           | 44.000             |        | 44.000  |
| C.8     | Asphalt cement, grade 50-60 on site  | ton   | 1                  |           | 48.000             |        | 48.000  |
| C.9     | Emulsified asphalt, grade RS-1 on site   | ton   | 1                  |           | 70.000             |        | 70.000  |
| C.10    | Outback asphalt, MC and RC type on site  | ton   | 1                  |           | 75.000             |        | 75.000  |
| C.11    | Portland cement on site  | ton   | 1                  |           | 25.000             |        | 25.000  |
| C.12    | Deformed billet steel bars, AASHTO M 31 grade 60 (High Yield) of any diameter  | ton   | 1                  |           | 135.000            |        | 135.000 |
| C.13    | Deformed billet steel bars AASHTO M 31 grade 40 (Mild) of any diameter   | ton   | 1                  |           | 135.000            |        | 135.000 |
| C.14    | Highway signs  | sq.m. | 3                  |           | 32.000             |        | 96.000  |
| C.15    | Highway sign supports - 1 post   | nr.   | 4                  |           | 15.000             |        | 60.000  |
|         |  |       | 19.10              |           | Carried to Summary |        | 750.500 |

**CONSTRUCTION OF FLYOVER AT  
AL KHABRAH  
BILL OF QUANTITIES  
BILL 19 - DAYWORKS**

| Item No | Description                    | Unit  | Estimated Quantity | Unit Rate          |    | Amount  |    |
|---------|--------------------------------|-------|--------------------|--------------------|----|---------|----|
|         |                                |       |                    | R.O.               | Ez | R.O.    | Ez |
| C.16    | Highway sign supports - 2 post | nr.   | 2                  | 20.000             |    | 40.000  |    |
| C.17    | Timber plank, on site          | cu.m. | 2                  | 105.000            |    | 210.000 |    |
| C.18    | Timber props, on site          | cu.m. | 2                  | 105.000            |    | 210.000 |    |
| C.19    | Wire mesh gabgions, on site    | ton   | 0.5                | 320.000            |    | 160.000 |    |
| C.20    | Explosive, on site             | kg.   | 5                  | 20.000             |    | 100.000 |    |
| C.21    | Gas oil, on site               | litre | 100                | 0.080              |    | 8.000   |    |
| C.22    | Gasoline, on site              | litre | 500                | 0.120              |    | 60.000  |    |
| C.23    | Lubricant                      | kg.   | 5                  | 0.300              |    | 1.500   |    |
|         |                                | 19-11 |                    | Carried to Summary |    | 789.500 |    |

**CONSTRUCTION OF FLYOVER AT**

**AL KHABRAH**

**BILL OF QUANTITIES**

**BILL 19 - DAYWORKS**

| Item No | Description    | Unit | Estimated<br>Quantity | Unit Rate |    | Amount   |    |
|---------|----------------|------|-----------------------|-----------|----|----------|----|
|         |                |      |                       | R.O.      | Bz | R.O.     | Bz |
|         | <b>SUMMARY</b> |      |                       |           |    |          |    |
|         | Page 19-1      |      |                       |           |    | 7979.000 |    |
|         | Page 19-2      |      |                       |           |    | 967.000  |    |
|         | Page 19-3      |      |                       |           |    | 511.000  |    |
|         | Page 19-4      |      |                       |           |    | 788.000  |    |
|         | Page 19-5      |      |                       |           |    | 1244.000 |    |
|         | Page 19-6      |      |                       |           |    | 849.000  |    |
|         | Page 19-7      |      |                       |           |    | 402.450  |    |
|         | Page 19-8      |      |                       |           |    | 204.500  |    |
|         | Page 19-9      |      |                       |           |    | 310.000  |    |
|         | Page 19-10     |      |                       |           |    | 750.500  |    |
|         | Page 19-11     |      |                       |           |    | 789.500  |    |
|         |                |      |                       |           |    |          |    |
|         |                |      |                       |           |    |          |    |

|  |       |                  |           |
|--|-------|------------------|-----------|
|  | 19-12 | To Grand Summary | 14795.950 |
|--|-------|------------------|-----------|

**BILL OF QUANTITIES****GRAND SUMMARY**

| Bill No | Description   | Amount             |
|---------|---|--------------------|
|         |   | R.O.               |
| 1       | Preliminaries   | 423590.000         |
| 2       | Earthworks  | 146851.600         |
| 3       | Granular and stabilized subbase, basecourse and stabilized subgrade | 43942.000          |
| 4       | Bituminous Pavement   | 243430.000         |
| 5       | Concrete and concrete structure                                     | 1181350.000        |
| 6       | Structural steel and other metal work                               | 97380.000          |
| 7       | Paint   | N/A                |
| 8       | Drainage and service ducts  | 37354.000          |
| 9       | Slope protection and stabilization                                  | 11592.000          |
| 10      | Piling  | 234240.000         |
| 11      | Bridge bearing, expansion joints, joint seals and fillers           | 88120.000          |
| 12      | Sidewalks, paved areas and kerbs                                    | 47933.000          |
| 13      | Safety barriers, delineators and fences                             | 40964.000          |
| 14      | Highway signs and road marking                                      | 47619.630          |
| 15      | Electrical installations  | 50000.000          |
| 16      | Landscape and irrigation  | N/A                |
| 17      | Utilities   | 50000.000          |
| 18      | Plant and Equipment   | N/A                |
| 19      | Dayworks  | 14795.950          |
|         | Sub-total   | 2759162.180        |
|         | Contingencies (10%)   | 275916.218         |
|         | <b>TOTAL CONTRACT VALUE (R.O)</b>                                   | <b>3035078.398</b> |

(IN WORDS, THE TOTAL TENDER VALUE IS RIAL OMANI)

NAME OF TENDERER

DATE

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SIGNATURE OF TENDERER



