

# BILLS OF QUANTITIES

**(Quantities are estimated for tendering purposes only)**

## 1.0 General

- 1.1 The Bill of Quantities shall be read in conjunction with the Conditions of Contract, conditions of particular applications, Specifications and special provisions, Drawings and Client's requirements and the Contractor shall provide against the bill rates or in the prices for the full scope of the work covered by the Contract, no claim or variations shall be considered on account of the Tender's failure to comply with this provision. The various documents collectively referred to herein as the Bill of Quantities shall jointly constitute the Bill of Quantities referred to in the Conditions of Contract and these preambles are to be read in conjunction with item descriptions in the Bill of Quantities.
- 1.2 Lump Sum values shall not be inserted where unit rates are applicable and the contractor shall ensure that identical items occurring in separate sections are not priced at different rates, unless this is the deliberate intention.
- 1.3 The contractor shall check against the summaries that each copy of the Bill of Quantities is complete in the number of pages and in the reproduction of each page.
- 1.4 Unit rates and prices shall be given in Kenya Shillings (KSh) with Cents taken to two decimal places.
- 1.5 The Quantities inserted against items in the Bill of Quantities are estimated quantities of the Works for the purpose of Tender Evaluations, and the Contractor shall be deemed to have checked and verified such quantities in the compilation of his Tender Price prior to the submission of his Tender. Upon the award of the Contract, the priced Bill of Quantities shall be used solely for evaluating interim payments due to the Contractor, and as a schedule of rates for establishing the value of variations.
- 1.6 The Contractor shall not use the Bill of Quantities for the purpose of ordering materials or arranging Subcontractors. References to these activities shall be the Specifications and Drawings and instructions issued by the Engineer.
- 1.7 All items in the Bill of Quantities shall be deemed to have a monetary value, whether priced or un-priced. In the absence of a unit rate or price against any item, the cost shall be deemed to have been included elsewhere within the Contract Price and the work described to that item shall be executed by the Contractor without any additional payment.
- 1.8 The descriptions in the Bill of Quantities may be incomplete and the Contractor is referred to the Drawings and Specifications for complete information in respect of all the relevant descriptions, quality, dimensions, capacities, design parameters and the like.

## 2.0 Format of Descriptions

2.1 In addition to common abbreviations, the following have been adopted:

|                |   |              |    |   |        |
|----------------|---|--------------|----|---|--------|
| mm             | - | Millimeter   | No | - | Number |
| m              | - | Meter        |    |   |        |
| m <sup>2</sup> | - | Square Meter |    |   |        |

## 3.0 Rates

3.1 Rates and Prices shall be all inclusive, comprehensive and include the following:

- a) All obligations imposed by the Contract.
- b) Complying in every respect with the requirements and the considerations of the Specifications and Drawings.
- c) All considerations arising from the definitions incorporated in each Preamble section.
- d) Laborer for fixing and all associated costs.
- e) Materials and goods and all associated costs.
- f) Fitting and /or fixing materials and goods in any position, hoisting to any height.
- g) Use of Scaffolding, plant, equipment and tools.
- h) Any additional laborers usually associated with measured items.
- i) All necessary protection of the Works, removing all temporary installations and making good and clearing away upon completion.
- j) All applicable taxes, duties, charges and transport.
- k) Overheads & profit.

## 4.0 Measurements

4.1 The pricing of materials shall take account of the following:

- A) Pricing Preambles, Drawings and specifications shall apply reciprocally between the various sections of the Works, unless otherwise described.
- B) Materials shall be of the specified quality unless otherwise described.
- C) All materials shall be transported, handled, stored and fixed in accordance with the printed instruction or recommendations of their manufacturer or suppliers.
- D) Protection of completed work, all casings and temporary coverings and making good and clearing away upon completion.

## **5.0 Discrepancies**

- 5.1 Any discrepancy arising in terms of these Preambles and the items contained within the Bill of Quantities must be brought to the attention of the Project manager for his clarification prior to the submission of tender.

**Disclaimer**

The following quantities were prepared by the Department of ICT. The information contained in these estimates were gathered during their investigations and assessments.

The County Assembly of Kilifi (CAK) in no way warrants the information contained herein and will accept no liability for any misleading or wrong information. All bidders are reminded that they should prepare their tender based on their own investigations and site visit.

The CAK will accept no liability for any costs incurred by procurer using this information in the preparation of their tender.

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| <b>LOCATION : GROUND FLOOR</b> |  |            |             |             |               |
|--------------------------------|--|------------|-------------|-------------|---------------|
| <b>ITEM NO:</b>                | <b>DESCRIPTION</b>   | <b>QTY</b> | <b>UNIT</b> | <b>RATE</b> | <b>AMOUNT</b> |
| 1                              | Cisco Wireless Access Point 2800 Series                              | 6          | No          |             |               |
| 2                              | One Meter Patch Cords  | 55         | No          |             |               |
| 3                              | Three Meter Patch Cords  | 55         | No          |             |               |
| 4                              | CAT 6E (Siemon) Cable in boxes of 300Metres                          | 20         | No          |             |               |
| 5                              | 12 Port Core Fibre Switch POE managed                                | 1          | No          |             |               |
| 6                              | 48 Port PoE Managed Catalyst Switch with 4 SFP SMD Fibre Ports       | 2          | No          |             |               |
| 7                              | 48 Port Giganet Data Patch Panel                                     | 2          | No          |             |               |
| 8                              | Data and Voice Faceplate   | 55         | No          |             |               |
| 9                              | Dual Data and Voice Face Plate                                       | 55         | No          |             |               |
| 10                             | 1 U Cable Managers   | 4          | Pcs         |             |               |
|                                |  |            |             |             |               |
| 11                             | 6 Way Rack Mounted Power Extension                                   | 2          | No          |             |               |
| 12                             | 50mm x 100mm x 3M Double Compartment PVC Trunk                       | 400        | Pc          |             |               |
| 13                             | Outdoor Armoured CAT 6E Cable (Siemens) in boxes of 300M             | 1          | No          |             |               |
|                                |  |            |             |             |               |
|                                |  |            |             |             |               |
|                                | <b>INTER CONNECTIVITY SOLUTION</b>                                   |            |             |             |               |
| 14                             | 8 Core Single Mode Fiber Optic Cable from Data Centre to main Office | 300        | M           |             |               |
| 15                             | Trenching and Laying of the Fiber Cable                              | 300        | M           |             |               |
|                                |  |            |             |             |               |
| 16                             | Biometric Access with Time Feature                                   |            |             |             |               |
| i                              | Sub-Total Ground Floor to Collection Page                            |            |             |             |               |
|                                |  |            |             |             |               |

| <b>LOCATION : FIRST FLOOR</b> |  |            |             |             |               |
|-------------------------------|--|------------|-------------|-------------|---------------|
| <b>ITEM NO:</b>               | <b>DESCRIPTION</b>   | <b>QTY</b> | <b>UNIT</b> | <b>RATE</b> | <b>AMOUNT</b> |
| 1                             | Cisco Wireless Access Point 2800 Series                        | 12         | No          |             |               |
| 2                             | One Meter Patch Cords  | 55         | Nos         |             |               |
| 3                             | Three Meter Patch Cords  | 55         | Nos         |             |               |
| 4                             | CAT 6E (Siemon) Cable in boxes of 300Metres                    | 15         | No          |             |               |
| 5                             | 48 Port PoE Managed Catalyst Switch with 4 SFP SMD Fibre Ports | 4          | No          |             |               |
| 6                             | 48 Port Giganet Data Patch Panel                               | 4          | No          |             |               |
| 7                             | Data and Voice Faceplate                                       | 55         | No          |             |               |
| 8                             | Dual Data and Voice Face Plate                                 | 55         | No          |             |               |
| 9                             | 1 U Cable Managers   | 4          | Pcs         |             |               |
| 10                            | 12U Cabinet  | 2          | No          |             |               |
| 11                            | 6 Way Rack Mounted Power Extension                             | 2          | No          |             |               |
| 12                            | 50mm x 100mm x 3M Double Compartment PVC Trunk                 | 200        | Pcs         |             |               |
|                               |  |            |             |             |               |
|                               | <b>POWER BACK -UP</b>  |            |             |             |               |
| 13                            | 5Kva UPS (APC or Equivalent)                                   | 2          | No          |             |               |
|                               |  |            |             |             |               |
| ii                            | Sub-Total First Floor to Collection Page                       |            |             |             |               |
|                               |  |            |             |             |               |
|                               | <b>COLLECTION PAGE</b>   |            |             |             |               |
| i                             | Sub-Total Ground Floor to Collection Page                      |            |             |             |               |
| ii                            | Sub-Total First Floor to Collection Page                       |            |             |             |               |
|                               |  |            |             |             |               |
|                               |  |            |             |             |               |

| <b>LOCATION : SECOND FLOOR</b> |  |            |             |             |               |
|--------------------------------|--|------------|-------------|-------------|---------------|
| <b>ITEM NO:</b>                | <b>DESCRIPTION</b>   | <b>QTY</b> | <b>UNIT</b> | <b>RATE</b> | <b>AMOUNT</b> |
| 1                              | Cisco Wireless Access Point 2800 Series                        | 12         | No          |             |               |
| 2                              | One Meter Patch Cords  | 55         | Nos         |             |               |
| 3                              | Three Meter Patch Cords  | 55         | Nos         |             |               |
| 4                              | CAT 6E (Siemon) Cable in boxes of 300Metres                    | 15         | No          |             |               |
| 5                              | 48 Port PoE Managed Catalyst Switch with 4 SFP SMD Fibre Ports | 4          | No          |             |               |
| 6                              | 48 Port Giganet Data Patch Panel                               | 4          | No          |             |               |
| 7                              | Data and Voice Faceplate                                       | 55         | No          |             |               |
| 8                              | Dual Data and Voice Face Plate                                 | 55         | No          |             |               |
| 9                              | 1 U Cable Managers   | 4          | Pcs         |             |               |
| 10                             | 12U Cabinet  | 2          | No          |             |               |
| 11                             | 6 Way Rack Mounted Power Extension                             | 2          | No          |             |               |
| 12                             | 50mm x 100mm x 3M Double Compartment PVC Trunk                 | 200        | Pcs         |             |               |
|                                |  |            |             |             |               |
|                                | <b>POWER BACK -UP</b>  |            |             |             |               |
| 13                             | 5Kva UPS (APC or Equivalent)                                   | 2          | No          |             |               |
|                                |  |            |             |             |               |
| iii                            | Sub-Total Second Floor to Collection Page                      |            |             |             |               |
|                                |  |            |             |             |               |
|                                | <b>COLLECTION PAGE</b>   |            |             |             |               |
| i                              | Sub-Total Ground Floor to Collection Page                      |            |             |             |               |
| ii                             | Sub-Total First Floor to Collection Page                       |            |             |             |               |
| iii                            | Sub – Total Second Floor to Collection page                    |            |             |             |               |
|                                |  |            |             |             |               |



| <b>LOCATION : THIRD FLOOR</b> |  |            |             |             |               |
|-------------------------------|--|------------|-------------|-------------|---------------|
| <b>ITEM NO:</b>               | <b>DESCRIPTION</b>   | <b>QTY</b> | <b>UNIT</b> | <b>RATE</b> | <b>AMOUNT</b> |
| 1                             | Cisco Wireless Access Point 2800 Series                        | 12         | No          |             |               |
| 2                             | One Meter Patch Cords  | 55         | Nos         |             |               |
| 3                             | Three Meter Patch Cords  | 55         | Nos         |             |               |
| 4                             | CAT 6E (Siemon) Cable in boxes of 300Metres                    | 15         | No          |             |               |
| 5                             | 48 Port PoE Managed Catalyst Switch with 4 SFP SMD Fibre Ports | 4          | No          |             |               |
| 6                             | 48 Port Giganet Data Patch Panel                               | 4          | No          |             |               |
| 7                             | Data and Voice Faceplate                                       | 55         | No          |             |               |
| 8                             | Dual Data and Voice Face Plate                                 | 55         | No          |             |               |
| 9                             | 1 U Cable Managers   | 4          | Pcs         |             |               |
| 10                            | 12U Cabinet  | 2          | No          |             |               |
| 11                            | 6 Way Rack Mounted Power Extension                             | 2          | No          |             |               |
| 12                            | 50mm x 100mm x 3M Double Compartment PVC Trunk                 | 200        | Pcs         |             |               |
|                               |  |            |             |             |               |
|                               | <b>POWER BACK -UP</b>  |            |             |             |               |
| 13                            | 5Kva UPS (APC or Equivalent)                                   | 2          | No          |             |               |
|                               |  |            |             |             |               |
| iv                            | Sub-Total Third Floor to Collection Page                       |            |             |             |               |
|                               |  |            |             |             |               |
|                               | <b>COLLECTION PAGE</b>   |            |             |             |               |
| i                             | Sub-Total Ground Floor to Collection Page                      |            |             |             |               |
| ii                            | Sub-Total First Floor to Collection Page                       |            |             |             |               |
| iii                           | Sub-Total Second Floor to Collection Page                      |            |             |             |               |
| iv                            | Sub-Total Third Floor to Collection Page                       |            |             |             |               |

| <b>LOCATION : FOURTH FLOOR</b> |  |            |             |             |               |
|--------------------------------|--|------------|-------------|-------------|---------------|
| <b>ITEM NO:</b>                | <b>DESCRIPTION</b>   | <b>QTY</b> | <b>UNIT</b> | <b>RATE</b> | <b>AMOUNT</b> |
| 1                              | Cisco Wireless Access Point<br>2800 Series                           | 12         | No          |             |               |
| 2                              | One Meter Patch Cords  | 55         | Nos         |             |               |
| 3                              | Three Meter Patch Cords  | 55         | Nos         |             |               |
| 4                              | CAT 6E (Siemon) Cable in<br>boxes of 300Metres                       | 15         | No          |             |               |
| 5                              | 48 Port PoE Managed<br>Catalyst Switch with 4 SFP<br>SMD Fibre Ports | 4          | No          |             |               |
| 6                              | 48 Port Giganet Data Patch<br>Panel                                  | 4          | No          |             |               |
| 7                              | Data and Voice Faceplate   | 55         | No          |             |               |
| 8                              | Dual Data and Voice Face<br>Plate                                    | 55         | No          |             |               |
| 9                              | 1 U Cable Managers   | 4          | Pcs         |             |               |
| 10                             | 12U Cabinet  | 2          | No          |             |               |
| 11                             | 6 Way Rack Mounted Power<br>Extension                                | 2          | No          |             |               |
| 12                             | 50mm x 100mm x 3M<br>Double Compartment PVC<br>Trunk                 | 200        | Pcs         |             |               |
|                                |  |            |             |             |               |
|                                | <b>POWER BACK -UP</b>  |            |             |             |               |
| 13                             | 5Kva UPS (APC or<br>Equivalent)                                      | 2          | No          |             |               |
|                                |  |            |             |             |               |
| v                              | Sub-Total Fourth Floor to<br>Collection Page                         |            |             |             |               |
|                                | <b>COLLECTION PAGE</b>   |            |             |             |               |
| i                              | Sub-Total Ground Floor to<br>Collection Page                         |            |             |             |               |
| ii                             | Sub-Total First Floor to<br>Collection Page                          |            |             |             |               |
| iii                            | Sub-Total Second Floor to<br>Collection Page                         |            |             |             |               |
| iv                             | Sub-Total Third Floor to<br>Collection Page                          |            |             |             |               |
| v                              | Sub-Total Fourth Floor to<br>Collection Page                         |            |             |             |               |

| <b>LOCATION : SERVER ROOM (GROUND FLOOR)</b> |  |            |             |             |               |
|--|--|------------|-------------|-------------|---------------|
| <b>ITEM NO:</b>                              | <b>DESCRIPTION</b>   | <b>QTY</b> | <b>UNIT</b> | <b>RATE</b> | <b>AMOUNT</b> |
| 1  | False Floor and Ceiling<br>(Refer to Drawings available on request by emailing ochengo@kilifiassembly.go.ke) | 1          | No          |             |               |
| 2  | Cable Rails  | 4          | No          |             |               |
| 3  | Supply, delivery and installation of Server:<br>*See Appendix 1 for specifications                           | 2          | No          |             |               |
| 4  | Network Cabinet 42U  | 2          | No          |             |               |
| 5  | 10Kva UPS (APC or Equivalent)  | 1          | No          |             |               |
| 6  | Fire Suppression System designed for Data center /Server room  | 1          | No          |             |               |
| 7  | Maintenance Free Batteries 200Ah   | 15         | No          |             |               |
|  |  |            |             |             |               |
|  | <b>Sub-Total Server Room To Collection Page</b>  |            |             |             |               |

| <b>TELEPHONE SYSTEM</b>                            |   |            |             |             |               |
|--|---|------------|-------------|-------------|---------------|
| <b>LOCATION : MULTIPLE OFFICES IN THE BUILDING</b> |   |            |             |             |               |
| <b>ITEM NO:</b>                                    | <b>DESCRIPTION</b>  | <b>QTY</b> | <b>UNIT</b> | <b>RATE</b> | <b>AMOUNT</b> |
|  | <b>SWITCH</b>   |            |             |             |               |
|  | Catalyst 3650 x 48 Port<br>Gigaset PoE 370W 4 X 1<br>GSFP LAN Base  | 2          | No          |             |               |
|  | SMARTNET 8 x 5 x NDB<br>for Catalyst 3650 x 24G<br>Duration 12months  | 2          | Lot         |             |               |
|  | AC Power Cord   | 2          | No          |             |               |
|  | Console Cable 6ft with USB<br>type A and Mini B   | 1          | No          |             |               |
|  | Cisco Router 2951 Series<br>with all relevant softwares<br>and licenses   | 1          | No          |             |               |
|  | <b>PANASONIC, AVAYA or<br/>Equivalent PABX System<br/>with ALL relevant<br/>softwares and licences to<br/>support the following<br/>features:</b> |            |             |             |               |
|  | Auto Attendant/Voice Mail<br>System   |            |             |             |               |
|  | Enhanced Voice Mail<br>System   |            |             |             |               |
|  | Smart Remote Extension  |            |             |             |               |
|  | One Numbered Extension  |            |             |             |               |
|  | Automatic Voice Guidance<br>for Customers   |            |             |             |               |
|  | Auto Recording and Backing<br>up conversations  |            |             |             |               |
|  | Monitoring Callers and Call<br>History Report   |            |             |             |               |
|  | Communication Assistant   |            |             |             |               |
|  | To be integrated with Ms<br>Exchange Server   |            |             |             |               |
|  | Operator Console  | 1          |             |             |               |
|  | IP Proprietary Telephone<br>KX-NT511 or Equivalent  | 150        |             |             |               |
| <b>NOTE</b>  | The system should have 3 outgoing lines   |            |             |             |               |

| <b>SECURITY SYSTEM</b>                             |  |            |             |             |               |
|--|--|------------|-------------|-------------|---------------|
| <b>LOCATION : MULTIPLE OFFICES IN THE BUILDING</b> |  |            |             |             |               |
| <b>ITEM NO:</b>                                    | <b>DESCRIPTION</b>   | <b>QTY</b> | <b>UNIT</b> | <b>RATE</b> | <b>AMOUNT</b> |
| 1  | Full HD Professional Outdoor Bullet Cameras (IP Camera, IR Night Vision, Motion Sensor)                                  | 8          | No          |             |               |
| 2  | Full HD Outdoor Wide Area Range Angle Cameras (PTZ Camera with at least 1080P, 20X Optical Zoom, HD IP, 80M IR Distance) | 8          | No          |             |               |
| 3  | Full HD Dome Cameras (IP Camera, IR Night Vision, Motion Sensor)   | 56         | No          |             |               |
| 4  | Supply and installation of 6M Aluminum Poles with Aluminum brackets for Outdoor Installation                             | 4          | No          |             |               |
| 5  | Giganet Indoor Coaxial Cable in boxes of 300m  | 9          | No          |             |               |
| 6  | NVR 128 Channel  | 1          | No          |             |               |
| 7  | 55" LED Touch Screen Monitor   | 1          | No          |             |               |
| 8  | 42" Full HD LED Monitors   | 3          | Pcs         |             |               |
| 9  | Hybrid Power Back UP System  | 3          | No          |             |               |
| 10   | Supply and installation of Storage Server Software for Camera management   | 1          | No          |             |               |
| 11   | Testing and Commissioning  |            | Pcs         |             |               |
| 12   | 40TB External Storage Disk   | 1          | No          |             |               |
|  |  |            |             |             |               |

**APPENDIX 1**

**SERVER SPECIFICATIONS**

- i. Rack 2U
- ii. Intel Xeon E5-2620v4 or equivalent
- iii. 2.4GHz/8-Core/15MB/85W
- iv. 16GB (1X16GB 2RX4 PC4-2400P-R Kit) Memory
- v. 3 x 300GB 6G SAS 10K 2.5in SC ENT Hard Disks
- vi. Smart Array P440ar/2GB
- vii. DVD-RW Drive
- viii. 1Gb 4-Port 331If1r Adapter
- ix. 1X500W FS Platinum Hot Plug
- x. HP Keyboard
- xi. HP Mouse
- xii. HP 18.5" LED TFT Screen
- xiii. Windows Server 2008 R2

**MAIN SUMMARY PAGE**

|  | KSh                         | Cts                         |
|--|-----------------------------|-----------------------------|
| NETWORKING                                 |                             |                             |
| GROUND FLOOR.....                          |                             |                             |
| FIRST FLOOR.....                           |                             |                             |
| SECOND FLOOR.....                          |                             |                             |
| THIRD FLOOR.....                           |                             |                             |
| FOURTH FLOOR .....                         |                             |                             |
| SERVER ROOM.....                           |                             |                             |
| CCTV CAMERAS.....                          |                             |                             |
| TELEPHONE SYSTEM.....                      |                             |                             |
| TOTAL.....                                 |                             |                             |
| ADD VAT (16%)                              |                             |                             |
| ADD KSH 450,000 FOR PROJECT MANAGEMENT FEE | 450,000                     | 00                          |
| ADD KSH 1,500,000 FOR CONTINGENCIES        | <u>1,500,000</u>            | <u>00</u>                   |
| GRAND TOTAL                                | <u>                    </u> | <u>                    </u> |

AMOUNT IN WORDS:.....  
.....

COMPANY SEAL

AUTHORIZED SIGNATURE