

| ITEM NO. | DESCRIPTION  | UNIT | QTY | RATE | KSHS. | CTS. |
|----------|--|------|-----|------|-------|------|
|          | <p><b><u>PROPOSED ZERO GRAZING UNIT FOR DEPARTMENT OF AGRICULTURE,LIVESTOCK AND FISHERIES AND BUSINESS,ENERGY AND INDUSTRY</u></b></p> <p><b><u>BILLS OF QUANTITIES</u></b></p> <p><b><u>SECTION NO. 2</u></b></p> <p><b><u>ELEMENT NO.1</u></b></p> <p><b><u>SUBSTRUCTURE</u></b></p> <p><u>(All Provisional)</u></p> <p><u>NOTES</u></p> <p>1 The Tenderer's attention is drawn to the Preliminaries Contract Particulars Clause 8.0 which states that the Standard Method of Measurement is the June 2008 Edition. Per Clause D5(g) of this S.M.M <b>all excavations in this BoQ have been measured NET and no allowance has been made for working space and the tenderer is shall price for the excavations accordingly.</b></p> <p>2 Cement for all Structural Works in these Bills of Quantities shall strictly be <b>Grade 32.5</b></p> <p>3 Cement for Non-Structural Works in these Bills of Quantities shall be <b>Grade 32.5</b></p> <p>4 All Reinforcement in these Bills of Quantities shall be to BS 4449:1997 with the following characteristic; a) <b>Grade 460 B high strength type 2 Ribbed bars with proof stress of 460N/mm<sup>2</sup></b>; allow for cutting, bending, hoisting and fixing including all necessary trying wires and spacer stools;</p> |      |     |      |       |      |

| ITEM NO. | DESCRIPTION  | UNIT | QTY | RATE | KSHS. | CTS. |
|----------|--|------|-----|------|-------|------|
|          | <u>SUBSTRUCTURES (CONT'D)</u>  |      |     |      |       |      |
|          | <u>Excavations &amp; Earthworks</u>  |      |     |      |       |      |
| A        | Excavate to remove top vegetable soil average 150mm deep; remove from site   | m2   | 106 |      |       |      |
| B        | Excavate to reduce levels, not exceeding 1.5 m deep from stripped level  | m3   | 49  |      |       |      |
| C        | Excavate for strip foundations not exceeding 1.5 m deep from reduced level   | m3   | 46  |      |       |      |
| D        | Ditto for stub Column Bases not exceeding 1.5 m deep from reduced level  | m3   | 22  |      |       |      |
| E        | Allow for keeping excavations free from water by baling or pumping as required including provision of drains, etc., as described | Item |     |      |       |      |
| F        | Allow for maintaining and supporting sides of excavations and for keeping free from fallen materials as described                | Item |     |      |       |      |
|          | <u>Disposal</u>  |      |     |      |       |      |
| G        | Backfilling around foundations & columns   | m3   | 10  |      |       |      |
| H        | Load and cart away surplus spoil   | m3   | 32  |      |       |      |
|          | <u>Imported filling</u>  |      |     |      |       |      |
| I        | 300mm Thick approved hardcore under floor bed well compacted   | m2   | 105 |      |       |      |
| J        | 40mm Thick Murram or quarry dust blinding to hardcore  | m2   | 105 |      |       |      |
|          | <u>Carried to Collection</u>   |      |     |      | Kshs. |      |
|          | <u>SUBSTRUCTURES (CONT'D)</u>  |      |     |      |       |      |
|          | <u>Damp proof membrane as described :-</u>   |      |     |      |       |      |

| ITEM NO.                      | DESCRIPTION   | UNIT | QTY   | RATE | KSHS. | CTS. |
|-------------------------------|---|------|-------|------|-------|------|
| A                             | 1000 Gauge polythene sheet dampproof membrane to horizontal surfaces<br><u>Anti-termite treatment</u>   | m2   | 105   |      |       |      |
| B                             | Chemical anti-termite treatment executed by an approved specialist under a ten-year guarantee to horizontal surfaces of the floor slab and around the plinth, e.t.c.<br><u>Concrete Class ( 1:3:6 ) in 50mm thick blinding under :-</u>   | m2   | 105   |      |       |      |
| C                             | Strip foundations for masonry walling   | m2   | 40    |      |       |      |
| D                             | Column bases<br><u>Vibrated reinforced concrete class 25 in:</u>  | m2   | 19    |      |       |      |
| E                             | Colum Bases   | m3   | 5     |      |       |      |
| F                             | Columns   | m3   | 1     |      |       |      |
| G                             | Strip foundations   | m3   | 7     |      |       |      |
| H                             | Ground beams  | m3   | 3     |      |       |      |
| I                             | 150 mm Thick bed<br><br><b><u>Reinforcement</u></b><br><br><u>Reinforcement to BS 4449:1997 with the following characteristic; a) Grade 460 B high strength type 2 Ribbed bars with proof stress of 460N/mm<sup>2</sup>; allow for cutting, bending, hoisting and fixing including all necessary trying wires and spacer stools</u> | m2   | 105   |      |       |      |
| J                             | Assorted Bars   | Kg   | 1,800 |      |       |      |
|                               | <u>Carried to Collection</u>  |      |       |      | Kshs. |      |
| <u>SUBSTRUCTURES (CONT'D)</u> |   |      |       |      |       |      |

| ITEM NO. | DESCRIPTION  | UNIT | QTY | RATE | KSHS. | CTS. |
|----------|--|------|-----|------|-------|------|
|          | <u>Steel mesh fabric reinforcement to B.S. 4483</u>  |      |     |      |       |      |
| A        | Ref. A142 Layer of fabric mesh reinforcement laid in bed with 150mm side and end laps  | m2   | 105 |      |       |      |
|          | <u>Sawn formwork to:</u>   |      |     |      |       |      |
| B        | Sides of column bases  | m2   | 22  |      |       |      |
| C        | Sides of column  | m2   | 19  |      |       |      |
| D        | Sides of strip foundations   | m2   | 32  |      |       |      |
| E        | Sides of ground beams  | m2   | 30  |      |       |      |
| F        | Edges of floor beds 150 - 225mm high   | m    | 54  |      |       |      |
|          | <u>Quarry dressed natural stone walling in cement sand mortar (1:3) with minimum crushing strength of 7.0 N/mm<sup>2</sup></u> |      |     |      |       |      |
| G        | 200mm Thick walling  | m2   | 54  |      |       |      |
|          | <u>1000 Gauge polythene sheet damp proof course laid on and including cement sand (1:3) levelling screed</u>                   |      |     |      |       |      |
| H        | 200mm Wide   | m    | 44  |      |       |      |
|          | <u>Cement sand ( 1:4 ) render to :-</u>  |      |     |      |       |      |
| I        | 12mm Thick render to wall externally   | m2   | 12  |      |       |      |
|          | <u>Prepare and apply two coats of bituminous paint to :-</u>   |      |     |      |       |      |
| J        | Rendered walls externally  | m2   | 12  |      |       |      |
|          | <u>Carried to Collection</u>   |      |     |      | Kshs. |      |

| ITEM NO. | DESCRIPTION   | UNIT | QTY | RATE | KSHS. | CTS. |
|----------|---|------|-----|------|-------|------|
|          | <u>COLLECTION</u><br><br>Page No. 2/1<br><br>Page No. 2/2<br><br>Page No. 2/3 |      |     |      |       |      |
|          | <u>TOTAL FOR SUBSTRUCTURES CARRIED TO SUMMARY</u>                             |      |     |      | KSHS. |      |

| ITEM NO. | DESCRIPTION  | UNIT | QTY | RATE | KSHS. | CTS. |
|----------|--|------|-----|------|-------|------|
|          | <u>PROPOSED ZERO GRAZING UNIT FOR</u><br><u>DEPARTMENT OF</u><br><u>AGRICULTURE,LIVESTOCK AND FISHERIES</u><br><u>AND BUSINESS,ENERGY AND INDUSTRY</u> |      |     |      |       |      |
|          | <u>BILLS OF QUANTITIES</u><br><u>SECTION NO. 2</u>   |      |     |      |       |      |
|          | <u>CLASSROOM BLOCK</u><br><u>ELEMENT NO.2</u>  |      |     |      |       |      |
|          | <u>RC SUPERSTRUCTURE</u>   |      |     |      |       |      |
|          | <u>Concrete Class 25mm in:-</u>  |      |     |      |       |      |
| A        | 3000mm high Timber Columns   | No   | 38  |      |       |      |
|          | <u>Wrot treated prime grade cypress</u>  |      |     |      |       |      |
| B        | Ditto as Ring Beams  | m    | 60  |      |       |      |
|          | <u>TOTAL FOR RC SUPERSTRUCTURE</u><br><u>CARRIED TO SUMMARY</u>  |      |     |      |       |      |

| ITEM NO. | DESCRIPTION   | UNIT | QTY | RATE | KSHS. | CTS. |
|----------|---|------|-----|------|-------|------|
|          | <p><b><u>PROPOSED ZERO GRAZING UNIT FOR DEPARTMENT OF AGRICULTURE,LIVESTOCK AND FISHERIES AND BUSINESS,ENERGY AND INDUSTRY</u></b></p> <p><b><u>BILLS OF QUANTITIES</u></b></p> <p><b><u>SECTION NO. 2</u></b></p> <p><b><u>ELEMENT NO.4</u></b></p> <p><b><u>ROOF CONSTRUCTION, COVERINGS AND RAINWATER DISPOSAL</u></b></p> <p><b><u>ROOF CONSTRUCTION</u></b></p> <p><u>The following in sawn softwood timber including fabricating, hoisting and fixing in position approximately 12,000mm above ground floor level as per Structural Engineer's drawing</u></p> <p><u>Sawn cypress</u></p> <p><u>Rates to include all necessary bolting and/or nailing</u></p> |      |     |      |       |      |
| A        | 100 x 50 mm rafters   | m    | 311 |      |       |      |
| B        | 100 x 75 mm Tie beams   | m    | 101 |      |       |      |
| C        | 150 x 100 mm Wall plate   | m    | 42  |      |       |      |
| D        | 75 x 50 mm Purlins  | m    | 198 |      |       |      |
| E        | 75 x 50 mm Struts & Ties  | m    | 204 |      |       |      |
| F        | 100 x 50 mm Members   | m    | 14  |      |       |      |
|          | <u>Carried to Collection</u>  |      |     |      | Kshs. |      |

| ITEM NO. | DESCRIPTION   | UNIT | QTY | RATE | KSHS. | CTS. |
|----------|---|------|-----|------|-------|------|
|          | <u>ROOF(CONT'D)</u>   |      |     |      |       |      |
|          | <u>Wrot treated prime grade cypress</u>   |      |     |      |       |      |
| A        | 38mm thick tongued and grooved eaves filling V-jointed and secretly nailed onto and including 50mm x 50mm sawn cypress brackets with mosquito wire gauze in between | m    | 49  |      |       |      |
| B        | 225mm x 38mm thick fascia board fixed onto ends of rafters  | m    | 49  |      |       |      |
|          | <u>ROOF COVERINGS</u>   |      |     |      |       |      |
| C        | Roof covering as 28 gauge versatile roofing Sheet including roof vents to suppliers recommendations   | m2   | 152 |      |       |      |
| D        | ridge board to match roof sheet   | m    | 18  |      |       |      |
| E        | 600 mm wide ditto valley flashing four times bent   | m    |     |      |       |      |
| F        | Extra over roofing sheet for raking cutting   | m    | 14  |      |       |      |
|          | <u>Prepare surfaces and apply one coat of aluminium wood primer and two finishing coats of gloss oil paint on:</u>  |      |     |      |       |      |
| G        | General wood surfaces   | m2   | 15  |      |       |      |
| H        | Wood surfaces 200 - 300mm girth   | m    | 20  |      |       |      |
|          | <u>Carried to Collection</u>  |      |     |      | Kshs. |      |



| ITEM NO. | DESCRIPTION   | UNIT | QTY | RATE | KSHS. | CTS. |
|----------|---|------|-----|------|-------|------|
|          | <u>ROOF(CONT'D)</u>   |      |     |      |       |      |
|          | <u>Rainwater goods</u>  |      |     |      |       |      |
| A        | 200mm wide x 200mm deep (600mm girth) prepainted gauge 24 galvanised iron gutter fixed onto fascia board with approved mild steel straps at every 1,000mm centres | m    | 49  |      |       |      |
| B        | Extra over ditto for stopped ends   | No.  | 4   |      |       |      |
| C        | Ditto for forming 150mm x 150mm hole for down pipe  | No.  | 6   |      |       |      |
| D        | 150mm x 150mm prepainted gauge 24 galvanised iron rain water down pipe fixed onto walls with approved mild steel support brackets at 1,000mm centres              | m    | 12  |      |       |      |
|          | <u>Carried to Collection</u>  |      |     |      | Kshs. |      |

| ITEM NO. | DESCRIPTION  | UNIT | QTY | RATE | KSHS.        | CTS. |
|----------|--|------|-----|------|--------------|------|
|          | (ROOF CONT'D)  |      |     |      |              |      |
|          | <p style="text-align: center;"><u>COLLECTION</u></p> <p style="text-align: center;">Page No. 2/1</p> <p style="text-align: center;">Page No. 2/2</p> <p style="text-align: center;">Page No. 2/3</p> <p style="text-align: center;">Page No. 2/4</p> |      |     |      |              |      |
|          | <b><u>TOTAL FOR ROOF CARRIED TO SUMMARY</u></b>  |      |     |      | <b>KSHS.</b> |      |

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|----------|--|------|------|------|-------|------|
|          | <p><b><u>PROPOSED ZERO GRAZING UNIT FOR DEPARTMENT OF AGRICULTURE,LIVESTOCK AND FISHERIES AND BUSINESS,ENERGY AND INDUSTRY</u></b></p>   |      |      |      |       |      |
|          | <p><b><u>BILLS OF QUANTITIES</u></b></p>   |      |      |      |       |      |
|          | <p><b><u>SECTION NO. 2</u></b></p>   |      |      |      |       |      |
|          | <p><b><u>ELEMENT NO. 5</u></b></p>   |      |      |      |       |      |
|          | <p><b><u>EXTERNAL WALLS</u></b></p>  |      |      |      |       |      |
|          | <p><u>Wrot treated prime grade timber in</u></p>   |      |      |      |       |      |
| A        | Ground floor walls   | m2   | 99   |      |       |      |
|          | <p><u>Approved local natural stonework; squared and machine dressed;bedded in cement mortar (1:4); reinforced with 25mm wide x 20mm gauge hoop iron strapping every alternate course</u></p> |      |      |      |       |      |
| B        | 200mm Thick dwarf walling  | m2   | 62   |      |       |      |
|          | <p><u>Damp proof course</u></p>  |      |      |      |       |      |
| C        | 200mm wide   | m    | 42   |      |       |      |
|          | <u>Carried to Collection</u>   |      |      |      | Kshs. |      |

| ITEM NO. | DESCRIPTION  | UNIT | QTY. | RATE | KSHS. | CTS. |
|----------|--|------|------|------|-------|------|
|          | <u>EXTERNAL WALLS (CONT'D)</u>                     |      |      |      |       |      |
|          | <u>COLLECTION</u>                                  |      |      |      |       |      |
|          | Page No. 2/2                                       |      |      |      |       |      |
|          | <u>TOTAL FOR EXTERNAL WALLS CARRIED TO SUMMARY</u> |      |      |      | KSHS. |      |
|          |  |      |      |      |       |      |
|          |  |      |      |      |       |      |

| ITEM NO. | DESCRIPTION   | UNIT | QTY. | RATE  | KSHS. | CTS. |
|----------|---|------|------|-------|-------|------|
|          | <u>PROPOSED ZERO GRAZING UNIT FOR<br/>DEPARTMENT OF<br/>AGRICULTURE,LIVESTOCK AND FISHERIES<br/>AND BUSINESS,ENERGY AND INDUSTRY</u>  |      |      |       |       |      |
|          | <u>BILLS OF QUANTITIES</u>  |      |      |       |       |      |
|          | <u>SECTION NO. 2</u>  |      |      |       |       |      |
|          | <u>ELEMENT NO. 5</u>  |      |      |       |       |      |
|          | <u>INTERNAL WALLS</u>   |      |      |       |       |      |
|          | <u>Wrot treated prime grade timber in</u>   |      |      |       |       |      |
| A        | Ground floor walls  | m2   | 48   |       |       |      |
|          | <u>Approved local natural stonework; squared and<br/>machine dressed;bedded in cement mortar (1:4);<br/>reinforced with 25mm wide x 20mm gauge hoop iron<br/>strapping every alternate course</u> |      |      |       |       |      |
| B        | 200mm Thick dwarf walling   | m2   | 42   |       |       |      |
|          | <u>Damp proof course</u>  |      |      |       |       |      |
| C        | 200mm wide  | m    | 28   |       |       |      |
|          | <u>Carried to Collection</u>  |      |      | Kshs. |       |      |

| ITEM NO. | DESCRIPTION  | UNIT | QTY. | RATE | KSHS.        | CTS. |
|----------|--|------|------|------|--------------|------|
|          | <u>INTERNAL WALLS (CONT'D)</u>                     |      |      |      |              |      |
|          | <u>COLLECTION</u>                                  |      |      |      |              |      |
|          | Page No. 2/2                                       |      |      |      |              |      |
|          | <u>TOTAL FOR INTERNAL WALLS CARRIED TO SUMMARY</u> |      |      |      | <b>KSHS.</b> |      |
|          |  |      |      |      |              |      |
|          |  |      |      |      |              |      |

| ITEM NO. | DESCRIPTION   | UNIT | QTY | RATE  | KSHS. | CTS. |
|----------|---|------|-----|-------|-------|------|
| A        | <p><b><u>PROPOSED ZERO GRAZING UNIT FOR DEPARTMENT OF AGRICULTURE,LIVESTOCK AND FISHERIES AND BUSINESS,ENERGY AND INDUSTRY</u></b></p> <p><b><u>BILLS OF QUANTITIES</u></b></p> <p><b><u>SECTION NO. 2</u></b></p> <p><b><u>ELEMENT NO. 8</u></b></p> <p><b><u>DOORS</u></b></p> <p><u>Steel Doors</u></p> <p><u>Supply and fix the following steel casement door fabricated from 50mm x 25mm x 3mm thick Rectangular Hollow Section ( R.H.S) mild steel framing infilled with 14 gauge mild steel sheet factory primed in red oxide or zinc chromate primer including 6mm thick clear glass infill complete with all necessary purpose made ironmongery, and locks to Architect's details and approval</u></p> <p>Size 900 x 2400 mm high door</p> | No.  | 1   |       |       |      |
|          | <u>Carried to Collection</u>  |      |     | Kshs. |       |      |

| ITEM NO. | DESCRIPTION   | UNIT | QTY | RATE | KSHS.        | CTS. |
|----------|---|------|-----|------|--------------|------|
|          | <u>DOORS (CONT'D)</u>   |      |     |      |              |      |
|          | <u>Ironmongery</u>  |      |     |      |              |      |
|          | <u>Supply and fix the following ironmongery as applicable or equal and approved ironmongery with matching</u> |      |     |      |              |      |
| A        | Rubber door stoper  | Set  | 1   |      |              |      |
|          | <u>Painting and decorating</u>  |      |     |      |              |      |
|          | <u>Touch up primer,prepare and apply three coats of gloss oil paint to</u>                                    |      |     |      |              |      |
| B        | Metal surfaces  | m2   | 6   |      |              |      |
|          | <u>Carried to Collection</u>  |      |     |      | Kshs.        |      |
|          | <u>COLLECTION</u>   |      |     |      |              |      |
|          | Page No. 2/1  |      |     |      |              |      |
|          | Page No. 2/2  |      |     |      |              |      |
|          | <b><u>TOTAL FOR DOORS CARRIED TO SUMMARY</u></b>  |      |     |      | <b>KSHS.</b> |      |
|          |   |      |     |      |              |      |



| ITEM NO. |  |                               | SHS.                | CTS. |
|----------|--|-------------------------------|---------------------|------|
|          | <p><b><u>PROPOSED ZERO GRAZING UNIT FOR DEPARTMENT OF AGRICULTURE,LIVESTOCK AND FISHERIES AND BUSINESS,ENERGY AND INDUSTRY</u></b></p> |                               |                     |      |
|          | <p><b><u>BILLS OF QUANTITIES</u></b></p>   |                               |                     |      |
|          | <p><b><u>SECTION NO. 2</u></b></p>   |                               |                     |      |
|          | <p><b><u>SUMMARY</u></b></p>   | <p><b><u>PAGE NO.</u></b></p> |                     |      |
| 1.       | SUBSTRUCTURES  |                               | 2/5                 |      |
| 2.       | RC SUPERSTRUCTURE  |                               | 2/1                 |      |
| 3        | ROOF   |                               | 2/12                |      |
| 4        | EXTERNAL WALLS   |                               | 2/4                 |      |
| 5        | INTERNAL WALLS   |                               | 2/4                 |      |
| 6        | DOORS  |                               | 2/2                 |      |
|          | <p><b><u>TOTAL FOR MAIN BLOCK CARRIED TO SUMMARY</u></b></p>   |                               | <p><b>KSHS.</b></p> |      |
|          |  |                               |                     |      |

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|----------|---|------|--------------|----------------|-----------|
|          | <u><b>PROPOSED ZERO GRAZING UNIT FOR DEPARTMENT OF AGRICULTURE,LIVESTOCK AND FISHERIES AND BUSINESS,ENERGY AND INDUSTRY</b></u> |      |              |                |           |
|          | <u><b>BILLS OF QUANTITIES</b></u>   |      |              |                |           |
|          | <u><b>SECTION NO. 3</b></u>   |      |              |                |           |
|          | <u><b>CLASSROOM BLOCK</b></u>   |      |              |                |           |
|          | <u><b>PRIME COST AND PROVISIONAL SUMS</b></u>   |      |              |                |           |
|          | <u><b>PRIME COST SUMS</b></u>   |      |              |                |           |
| A        | Allow a Prime Cost Sum of Kenya Shillings Two Hundred Thousand for Electrical Installations and KP&L Connection                 |      | Sum          | 200,000        | 00        |
| B        | Allow a Prime Cost Sum of Kenya Shillings one Thousand for water trough and feeding trough                                      |      | Sum          | 100,000        | 00        |
| C        | Allow a Prime Cost Sum of Kenya Shillings Two Hundred Thousand for Contingencies  |      | Sum          | 200,000        | 00        |
|          | <u><b>TOTAL FOR PRIME COST AND PROVISIONAL SUMS CARRIED TO SUMMARY</b></u>  |      | <b>KSHS.</b> | <b>500,000</b> | <b>00</b> |

| ITEM NO. |   |   | SHS. | CTS. |
|----------|---|---|------|------|
|          | <p><b><u>PROPOSED ZERO GRAZING UNIT FOR DEPARTMENT OF AGRICULTURE,LIVESTOCK AND FISHERIES AND BUSINESS,ENERGY AND INDUSTRY</u></b></p> <p><u>MAIN SUMMARY</u></p> <p>1. PRELIMINARIES</p> <p>2. MAIN BLOCK</p> <p>3. PROVISIONAL SUMS</p> | <p><u>PAGE NO.</u></p> <p>1/26</p> <p>2/25</p> <p>3/1</p> |      |      |
|          | <p><b><u>TOTAL CARRIED TO FORM OF TENDER THE RATES IS INCLUSIVE OF V.A.T</u></b></p>  | <p><b>KSHS.</b></p>                                       |      |      |
|          | <p><b><u>TOTAL CARRIED FOR 1NO UNITS</u></b></p>  |   |      |      |