

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>MECHANICAL WORKS:</u></p> <p><u>SPECIFICATIONS AND BILLS OF QUANTITIES FOR SINGLE-SPLIT ROOM AIR CONDITIONING SYSTEM INSTALLATIONS FOR THE PROPOSED CONSTRUCTION AND COMPLETION OF 1NO. OFFICE BLOCK FOR THE KILIFI COUNTY ASSEMBLY:</u></p> <p><u>NOTE:</u> The Design for this Air Conditioning system is intended to maintain Internal temperatures of 23+/-1°C at a Relative Humidity of 50+/-10% and shall be suitable for 240V 1-Phase,50Hz power supply.The equipments and accessories described here under covers the specific requirements of equipments and accessories to use for this contractor work and shall be used in conjunction with the accompanying contract drawings.It shall be deemed that the tenderer has based his tender on plant and equipment which is equal in performance to that stated within the specification.</p> <p>The Air Conditioning Units shall be of the 'Single-Split Unit Type',with the Indoor Units being both of ducted Ceiling Cassettes and High Wall types.The Units shall be self contained with nominal cooling as described for the particular room. The Outdoor Unit shall be encased in galvanized Mild steel Casing with polyester paint finish and shall be installed and mounted with appropriate and approved mounting brackets,on plinths and walls provided by others as shown in the drawings and as described in these Bills of Quantities,but the contractor shall mark in advance the exact dimensional position to the Engineers approval.</p> <p>The Contractor shall also be responsible for all other related works as described elsewhere in the particular specification for Air Conditioning and Mechanical Ventilation,including the drainage of condensed water and provision of anti-vibration mountings</p> <p>The tenderer shall also allow in their rates for perforation of holes,hacking of walls etc. and all the disturbed surfaces shall thereafter be made good by the contractor upon satisfactory completion of the works.</p>				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				NIL

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>MAIN OFFICE BUILDING:</u></p> <p><u>ELEMENT NO.01:(GROUND FLOOR):</u> <u>Supply, deliver,Install,Test and Commission Single Split Room Air Conditioning System on positions shown in the drawings and to the Engineer's approval and Comprising of the following:-</u></p> <p><u>Indoor Wall mounted Cooling Unit(Evaporator)</u> Fully packaged wall mounted Indoor Unit (Evaporator) approx.cooling load capacity 5.3KW(18000 BTU/HR) as 'MODEL WEST POINT' or other approved equivalent.The unit shall be complete with 1No.Air purifying filter,built in water drain pump, flared connections for refrigeration pipe work,fixing brackets and wall mounting kit,Capillary tubing connection,Thermostat,including high and low pressure cut-outs,condensate discharge pipe work in Black PVC,15mm diameter and chased in to wall,service access valves and voltage surge protector as 'MODEL SOLLATEK AVS or other equal and approved,including all other necessary items for the proper functioning of the entire Indoor(Evaporator) cooling unit system</p>				
A		3	ITEM		
B	Ditto but 7.0KW(24000 BTU/HR) ditto	20	ITEM		
C	Ditto but 5.3KW(18000 BTU/HR) Four Way ceiling cassette complete with ceiling mounting kit ditto	7	ITEM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><u>ELEMENT NO.1 CONT'D:</u></p> <p><u>Condensing Unit/Outdoor Unit:</u> Fully Packaged set of Refrigeration Condensing Unit typical for connection and supply to the above described Indoor Unit,Capacity,(18000BTU/HR) and as 'MODEL WEST POINT'or other equal and approved.The unit shall be complete with casing constructed in18gauge zinc coated mild steel,zinc phosphate bonderized,coated with oven baked polyster paint and weatherized for outdoor installation.It shall also have weep holes on base to allow ease of drainage,Hermetically sealed compressor mounted on unit base with rubber isolated hold down bolts,Air cooled Condensers and Internal overload protection.The Unit shall also be complete with Distributor for Refrigeration Control,Fixing bracket,Wall/Ceiling mounting Kit,Heat exchanger capacity and Precise Inverter frequency controls,Refrigerant oil control system,including condensate discharge pipe work,service acess valves,sight glass,Filter Drier,Condenser Fan and all other necessary Items for the proper functioning of the entire condensing unit system.The entire system should be able to restart automatically in the event of power failure.</p>	10	ITEM		
B	Ditto but 24000 BTU/HR ditto	20	ITEM		
C	<p><u>Refrigeration Pipework</u> A set of Refrigeration Pipework complete with flared connections and fittings in approved copper tubing approx.10metres long,including flexible condensate drip line approx.20metres long,properly fixed and encased in 20mm diameter black PVC Conduit in conformity with 'APPROVED REFRIGERATION MANUAL'.The suction line shall be insulated with at least 25mm thickness of Armaflex or other equal and approved material</p>	300	LM		
D	<p><u>Testing</u> Allow for testing of the above Air Conditioning Unit both during progress of installation and at completion to the Engineers satisfaction,including initial charging of the system with Refrigerant gas R.410A or other equal and approved and to leave the system in good and sound working condition</p>	30	ITEM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>ELEMENT NO.1 CONT'D:</u></p> <p><u>SUMMARY OF COLLECTION</u> GROUND FLOOR</p> <p>Total Brought Forward From Mech/2</p> <p>Total Brought Forward From Mech/3</p>				
	<p>TOTAL GROUND FLOOR CARRIED FORWARD TO GRAND SUMMARY PAGE</p>				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.02:(FIRST FLOOR):</u>				
	<u>Supply, deliver,Install,Test and Commission Single Split Room Air Conditioning System on positions shown in the drawings and to the Engineer's approval and Comprising of the following:-</u>				
	<u>Indoor Wall mounted Cooling Unit(Evaporator)</u>				
A	Fully packaged wall mounted Indoor Unit (Evaporator) approx.cooling load capacity 3.5KW(12000 BTU/HR) as ' MODEL WEST POINT ' or other approved equivalent.The unit shall be complete with 1No. Air purifying filter,built in water drain pump, flared connections for refrigeration pipe work,fixing brackets and wall mounting kit,Capillary tubing connection,Thermostat,including high and low pressure cut-outs,condensate discharge pipe work in Black PVC,15mm diameter and chased in to wall,service access valves and voltage surge protector as ' MODEL SOLLATEK AVS or other equal and approved,including all other necessary items for the proper functioning of the entire Indoor(Evaporator) cooling unit system	4	ITEM		
B	Ditto but 5.3KW(18000 BTU/HR) ditto	18	ITEM		
C	Ditto but 7KW(24000 BTU/HR) ditto	8	ITEM		
	<u>Refrigeration Pipework</u>				
D	A set of Refrigeration Pipework complete with flared connections and fittings in approved copper tubing approx.10metres long,including flexible condensate drip line approx.25metres long,properly fixed and encased in 20mm diameter black PVC Conduit in conformity with ' APPROVED REFRIGERATION MANUAL '.The suction line shall be insulated with at least 25mm thickness of Armaflex or other equal and approved material	415	LM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<p>A</p> <p>B</p> <p>C</p> <p>D</p>	<p><u>ELEMENT NO.2 CONT'D:</u></p> <p><u>Condensing Unit/Outdoor Unit:</u> Fully Packaged set of Refrigeration Condensing Unit typical for connection and supply to the above described Indoor Unit,Capacity,(12000BTU/HR) and as 'MODEL WEST POINT'or other equal and approved.The unit shall be complete with casing constructed in18gauge zinc coated mild steel,zinc phosphat bonderized,coated with oven baked polyester paint and weatherized for outdoor installation.It shall also have weep holes on base to allow ease of drainage,Hermetically sealed compressor mounted on unit base with rubber isolated hold down bolts,Air cooled Condensers and Internal overload protection.The Unit shall also be complete with Distributor for Refrigeration Control,Fixing bracket,Wall/Ceiling mounting Kit,Heat exchanger capacity and Precise Inverter frequency controls,Refrigerant oil control system,including condensate discharge pipe work,service access valves,sight glass,Filter Drier,Condenser Fan and all other necessary Items for the proper functioning of the entire condensing unit system.The entire system should be able to restart automatically in the event</p> <p>Ditto but (18000 BTU/HR) ditto</p> <p>Ditto but (24000 BTU/HR) ditto</p> <p><u>Testing</u> Allow for testing of the above Air Conditioning Unit both during progress of installation and at completion to the Engineers satisfaction,including initial charging of the system with Refrigerant gas R.410A or other equal and approved and to leave the system in good and sound working condition</p>	<p>4</p> <p>18</p> <p>8</p> <p>30</p>	<p>ITEM</p> <p>ITEM</p> <p>ITEM</p> <p>ITEM</p>		
	TOTAL CARRIED TO COLLECTION				
	<p><u>SUMMARY OF COLLECTION</u> FIRST FLOOR</p> <p>Total Brought Down From Above</p> <p>Total Brought Forward From Mech/5</p>				
	TOTAL FIRST FLOOR CARRIED FORWARD TO GRAND SUMMARY PAGE				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>ELEMENT NO.03:(SECOND FLOOR):</u></p> <p><u>Supply, deliver,Install,Test and Commission Single Split - Room Air Conditioning System on positions shown in the drawings and to the Engineer's approval and Comprising of the following:-</u></p> <p><u>Indoor Wall mounted Cooling Unit(Evaporator)</u> Fully packaged wall mounted Indoor Unit (Evaporator) approx.cooling load capacity 5.3KW(18000 BTU/HR) as 'MODEL WEST POINT' or other approved equivalent.The unit shall be complete with 1No.Air purifying filter,built in water drain pump, flared connections for refrigeration pipe work,fixing brackets and wall mounting kit,Capillary tubing connection,Thermostat,including high and low pressure cut-outs,condensate discharge pipe work in Black PVC,15mm diameter and chased in to wall,service access valves and voltage surge protector as 'MODEL SOLLATEK AVS or other equal and approved,including all other necessary items for the proper functioning of the entire Indoor(Evaporator) cooling unit system</p>				
A		26	ITEM		
B	Ditto but 7.0KW(24000 BTU/HR) ditto	4	ITEM		
C	<p><u>Refrigeration Pipework</u> A set of Refrigeration Pipework complete with flared connections and fittings in approved copper tubing approx.10metres long,including flexible condensate drip line approx.35metres long,properly fixed and encased in 20mm diameter black PVC Conduit in conformity with 'APPROVED REFRIGERATION MANUAL'.The suction line shall be insulated with at least 25mm thickness of Armaflex or other equal and approved material</p>	280	LM		
D	<p><u>Trunking</u> Supply, deliver and install 150mm wide x 50mm deep heavy duty PVC trunking complete with end caps, corner pieces and joining clips and make good all disturbed surfaces. The trunking shall be firmly fixed on wall/ceiling surface using stainless steel screws, plugs and mounting brackets at an interval not more than 1000mm and to Engineers' approval.</p>	100	LM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<p>A</p>	<p><u>ELEMENT NO.3 CONT'D:</u></p> <p><u>Condensing Unit/Outdoor Unit:</u> Fully Packaged set of Refrigeration Condensing Unit typical for connection and supply to the above described Indoor Unit,Capacity,(18000BTU/HR) and as 'MODEL WEST POINT'or other equal and approved.The unit shall be complete with casing constructed in18gauge zinc coated mild steel,zinc phosphatized,coated with oven baked polyester paint and weatherized for outdoor installation.It shall also have weep holes on base to allow ease of drainage,Hermetically sealed compressor mounted on unit base with rubber isolated hold down bolts,Air cooled Condensers and Internal overload protection.The Unit shall also be complete with Distributor for Refrigeration Control,Fixing bracket,Wall/Ceiling mounting Kit,Heat exchanger capacity and Precise Inverter frequency controls,Refrigerant oil control system,including condensate discharge pipe work,service access valves,sight glass,Filter Drier,Condenser Fan and all other necessary Items for the proper functioning of the entire condensing unit system.The entire system should be able to restart automatically in the event of power failure.</p>	<p align="center">26</p>	<p align="center">ITEM</p>		
<p>B</p>	<p>Ditto but (24000 BTU/HR) ditto</p>	<p align="center">4</p>	<p align="center">ITEM</p>		
<p>C</p>	<p><u>Testing</u> Allow for testing of the above Air Conditioning Unit both during progress of installation and at completion to the Engineers satisfaction,including initial charging of the system with Refrigerant gas R.410A or other equal and approved and to leave the system in good and sound working condition</p>	<p align="center">30</p>	<p align="center">ITEM</p>		
	<p>TOTAL CARRIED TO COLLECTION</p>				
	<p><u>SUMMARY OF COLLECTION</u> SECOND FLOOR</p> <p>Total Brought Down From Above</p> <p>Total Brought Forward From Mech/7</p>				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL SECOND FLOOR CARRIED FORWARD TO GRAND SUMMARY PAGE				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.04:(THIRD FLOOR):</u>				
	<u>Supply, deliver,Install,Test and Commission Single Split - Room Air Conditioning System on positions shown in the drawings and to the Engineer's approval and Comprising of the following:-</u>				
	<u>Indoor Wall mounted Cooling Unit(Evaporator)</u>				
A	Fully packaged wall mounted Indoor Unit (Evaporator) approx.cooling load capacity 3.5KW(12000 BTU/HR) as ' MODEL WEST POINT ' or other approved equivalent.The unit shall be complete with 1No. Air purifying filter,built in water drain pump, flared connections for refrigeration pipe work,fixing brackets and wall mounting kit,Capillary tubing connection,Thermostat,including high and low pressure cut-outs,condensate discharge pipe work in Black PVC,15mm diameter and chased in to wall,service access valves and voltage surge protector as ' MODEL SOLLATEK AVS or other equal and approved,including all other necessary items for the proper functioning of the entire Indoor(Evaporator) cooling unit system	8	ITEM		
B	Ditto but 5.3KW(18000 BTU/HR) ditto	13	ITEM		
C	Ditto but 7.0KW(24000 BTU/HR) ditto	6	ITEM		
D	Ditto but 11.0KW(36000 BTU/HR) ditto	1	ITEM		
	<u>Refrigeration Pipework</u>				
E	A set of Refrigeration Pipework complete with flared connections and fittings in approved copper tubing approx.10metres long,including flexible condensate drip line approx.35metres long,properly fixed and encased in 20mm diameter black PVC Conduit in conformity with ' APPROVED REFRIGERATION MANUAL '.The suction line shall be insulated with at least 25mm thickness of Armaflex or other equal and approved material	440	LM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>ELEMENT NO.4 CONT'D:</u></p> <p><u>Condensing Unit/Outdoor Unit:</u> Fully Packaged set of Refrigeration Condensing Unit typical for connection and supply to the above described Indoor Unit,Capacity,(12000BTU/HR) and as 'MODEL WEST POINT'or other equal and approved.The unit shall be complete with casing constructed in18gauge zinc coated mild steel,zinc phosphate bonderized,coated with oven baked polyster paint and weatherized for outdoor installation.It shall also have weep holes on base to allow ease of drainage,Hermetically sealed compressor mounted on unit base with rubber isolated hold down bolts,Air cooled Condensers and Internal overload protection.The Unit shall also be complete with Distributor for Refrigeration Control,Fixing bracket,Wall/Ceiling mounting Kit,Heat exchanger capacity and Precise Inverter frequency controls,Refrigerant oil control system,including condensate discharge pipe work,service acess valves,sight glass,Filter Drier,Condenser Fan and all other necessary Items for the proper functioning of the entire condensing unit system.The entire system should be able to restart automatically in the event of power failure.</p>				
A		8	ITEM		
B	Ditto but 5.3KW(18000 BTU/HR) ditto	13	ITEM		
C	Ditto but 7.0KW(24000 BTU/HR) ditto	6	ITEM		
D	Ditto but 11.0KW(36000 BTU/HR) ditto	1	ITEM		
	<p><u>Testing</u></p>				
E	Allow for testing of the above Air Conditioning Unit both during progress of installation and at completion to the Engineers satisfaction,including initial charging of the system with Refrigerant gas R.410A or other equal and approved and to leave the system in good and sound working condition	28	ITEM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>ELEMENT NO.4 CONT'D:</u></p> <p><u>SUMMARY OF COLLECTION</u> THIRD FLOOR</p> <p>Total Brought Forward From Mech/9</p> <p>Total Brought Forward From Mech/10</p>				
	<p>TOTAL THIRD FLOOR CARRIED FORWARD TO GRAND SUMMARY PAGE</p>				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.05:(FOURTH FLOOR):</u>				
	<u>Supply, deliver,Install,Test and Commission Single Split - Room Air Conditioning System on positions shown in the drawings and to the Engineer's approval and Comprising of the following:-</u>				
	<u>Indoor Wall mounted Cooling Unit(Evaporator)</u>				
A	Fully packaged wall mounted Indoor Unit (Evaporator) approx.cooling load capacity 3.5KW(12000 BTU/HR) as ' MODEL WEST POINT ' or other approved equivalent.The unit shall be complete with 1No. Air purifying filter,built in water drain pump, flared connections for refrigeration pipe work,fixing brackets and wall mounting kit,Capillary tubing connection,Thermostat,including high and low pressure cut-outs,condensate discharge pipe work in Black PVC,15mm diameter and chased in to wall,service access valves and voltage surge protector as ' MODEL SOLLATEK AVS or other equal and approved,including all other necessary items for the proper functioning of the entire Indoor(Evaporator) cooling unit system	2	ITEM		
B	Ditto but 5.3KW(18000 BTU/HR) ditto	4	ITEM		
C	Ditto but 7.0KW(24000 BTU/HR) ditto	7	ITEM		
D	Ditto but 9.0KW(30000 BTU/HR) ditto	6	ITEM		
E	Ditto but 11.0KW(36000 BTU/HR) ditto	1	ITEM		
	<u>Refrigeration Pipework</u>				
F	A set of Refrigeration Pipework complete with flared connections and fittings in approved copper tubing approx.10metres long,including flexible condensate drip line approx.35metres long,properly fixed and encased in 20mm diameter black PVC Conduit in conformity with ' APPROVED REFRIGERATION MANUAL '.The suction line shall be insulated with at least 25mm thickness of Armaflex or other equal and approved material	200	LM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.5 CONT'D:</u>				
	<u>Condensing Unit/Outdoor Unit:</u>				
A	Fully Packaged set of Refrigeration Condensing Unit typical for connection and supply to the above described Indoor Unit,Capacity,(12000BTU/HR) and as ' MODEL WEST POINT 'or other equal and approved.The unit shall be complete with casing constructed in18gauge zinc coated mild steel,zinc phosphate bonderized,coated with oven baked polyster paint and weatherized for outdoor installation.It shall also have weep holes on base to allow ease of drainage,Hermetically sealed compressor mounted on unit base with rubber isolated hold down bolts,Air cooled Condensers and Internal overload protection.The Unit shall also be complete with Distributor for Refrigeration Control,Fixing bracket,Wall/Ceiling mounting Kit,Heat exchanger capacity and Precise Inverter frequency controls,Refrigerant oil control system,including condensate discharge pipe work,service acess valves,sight glass,Filter Drier,Condenser Fan and all other necessary Items for the proper functioning of the entire condensing unit system.The entire system should be able to restart automatically in the event of power failure.	2	ITEM		
B	Ditto but 5.3KW(18000 BTU/HR) ditto	4	ITEM		
C	Ditto but 7.0KW(24000 BTU/HR) ditto	7	ITEM		
D	Ditto but 9.0KW(30000 BTU/HR) ditto	6	ITEM		
E	Ditto but 11.0KW(36000 BTU/HR) ditto	1	ITEM		
	<u>Testing</u>				
F	Allow for testing of the above Air Conditioning Unit both during progress of installation and at completion to the Engineers satisfaction,including initial charging of the system with Refrigerant gas R.410A or other equal and approved and to leave the system in good and sound working condition	20	ITEM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>ELEMENT NO.5 CONT'D:</u></p> <p><u>SUMMARY OF COLLECTION</u> FOURTH FLOOR</p> <p>Total Brought Forward From Mech/12</p> <p>Total Brought Forward From Mech/13</p>				
	<p>TOTAL FOURTH FLOOR CARRIED FORWARD TO GRAND SUMMARY PAGE</p>				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>ELEMENT NO.06:(SECURITY OFFICE & GYMNASIUM):</u></p> <p><u>Supply, deliver,Install,Test and Commission Single Split Room Air Conditioning System on positions shown in the drawings and to the Engineer's approval and Comprising of the following:-</u></p> <p><u>Indoor Wall mounted Cooling Unit(Evaporator)</u> Fully packaged wall mounted Indoor Unit (Evaporator) approx.cooling load capacity 3.5KW(12000 BTU/HR) as 'MODEL WEST POINT' or other approved equivalent.The unit shall be complete with 1No.Air purifying filter,built in water drain pump, flared connections for refrigeration pipe work,fixing brackets and wall mounting kit,Capillary tubing connection,Thermostat,including high and low pressure cut-outs,condensate discharge pipe work in Black PVC,15mm diameter and chased in to wall,service access valves and voltage surge protector as 'MODEL SOLLATEK AVS or other equal and approved,including all other necessary items for the proper functioning of the entire Indoor(Evaporator) cooling unit system</p>				
A		1	ITEM		
B	Ditto but 5.3KW(18000 BTU/HR) ditto	1	ITEM		
C	Ditto but 9.0KW(30000 BTU/HR) ditto	1	ITEM		
D	Ditto but 11.0KW(36000 BTU/HR) ditto	1	ITEM		
E	<p><u>Refrigeration Pipework</u> A set of Refrigeration Pipework complete with flared connections and fittings in approved copper tubing approx.10metres long,including flexible condensate drip line approx.30metres long,properly fixed and encased in 20mm diameter black PVC Conduit in conformity with 'APPROVED REFRIGERATION MANUAL'.The suction line shall be insulated with at least 25mm thickness of Armaflex or other equal and approved material</p>	24	LM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO.6 CONT'D:</u>				
	<u>Condensing Unit/Outdoor Unit:</u>				
A	Fully Packaged set of Refrigeration Condensing Unit typical for connection and supply to the above described Indoor Unit,Capacity,(12000BTU/HR) and as ' MODEL WEST POINT 'or other equal and approved.The unit shall be complete with casing constructed in18gauge zinc coated mild steel,zinc phosphate bonderized,coated with oven baked polyster paint and weatherized for outdoor installation.It shall also have weep holes on base to allow ease of drainage,Hermetically sealed compressor mounted on unit base with rubber isolated hold down bolts,Air cooled Condensers and Internal overload protection.The Unit shall also be complete with Distributor for Refrigeration Control,Fixing bracket,Wall/Ceiling mounting Kit,Heat exchanger capacity and Precise Inverter frequency controls,Refrigerant oil control system,including condensate discharge pipe work,service acess valves,sight glass,Filter Drier,Condenser Fan and all other necessary Items for the proper functioning of the entire condensing unit system.The entire system should be able to restart automatically in the event of power failure.	1	ITEM		
B	Ditto but 18000 BTU/HR ditto	1	ITEM		
C	Ditto but 30000 BTU/HR ditto	1	ITEM		
D	Ditto but 36000 BTU/HR ditto	1	ITEM		
	<u>Testing</u>				
E	Allow for testing of the above Air Conditioning Unit both during progress of installation and at completion to the Engineers satisfaction,including initial charging of the system with Refrigerant gas R.410A or other equal and approved and to leave the system in good and sound working condition	4	ITEM		

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	TOTAL CARRIED TO COLLECTION				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>ELEMENT NO.6 CONT'D:</u></p> <p><u>SUMMARY OF COLLECTION</u> SECURITY OFFICE AND GYMNASIUM</p> <p>Total Brought Forward From Mech/15</p> <p>Total Brought Forward From Mech/16</p>				
	<p>TOTAL SECURITY OFFICE AND GYMNASIUM CARRIED FORWARD TO GRAND SUMMARY PAGE</p>				

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><u>ELEMENT NO.07:(PROVISIONAL SUMS):</u></p> <p><u>The following Provisional Sum to be Spend upon issuance of Instructions before and/or during progress of work for Engineer's Project Management Expenses.</u></p>				
	<p>Provide a Provisional Sum of Kenya Shillings Three Hundred Thousand (Kshs. 300,000.00) only for Engineers Supervision and Contract administration Expenses</p> <p><u>The following Provisional Sum to be Spend upon measurements on completion and priced in accordance with the rates contained in these Bills of Quantities or prorata thereto or deducted in whole if not required.</u></p>	1	ITEM		300,000.00
B	<p>Provide a Provisional Sum of Kenya Shillings,Two million Million(Kshs.2,000,000.00) only for Contingencies</p>	1	ITEM		2,000,000.00
	<p>TOTAL PROVISIONAL SUMS CARRIED FORWARD TO GRAND SUMMARY PAGE</p>				2,300,000.00

SPLIT ROOM AIR CONDITIONING SYSTEM FOR THE PROPOSED COUNTY ASSEMBLY OFFICE BLOCK

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>GRAND SUMMARY PAGE</u>				
	PRELIMINARIES BROUGHT FORWARD FROM PAGE(F-6).....				
	TOTALS GROUND FLOOR BROUGHT FORWARD FROM MECH/4.....				
	TOTALS FIRST FLOOR BROUGHT FORWARD FROM MECH/6.....				
	TOTALS SECOND FLOOR BROUGHT FORWARD FROM MECH/8.....				
	TOTALS THIRD FLOOR BROUGHT FORWARD FROM MECH/11.....				
	TOTALS FOURTH FLOOR BROUGHT FORWARD FROM MECH/14.....				
	TOTALS SECURITY OFFICE & GYMNASIUM BROUGHT FORWARD FROM MECH/17.....				
	PROVISIONAL SUMS BROUGHT FORWARD FROM MECH/18.....				2,300,000.00
	SUB TOTALS				
	ADD 16% V.A.T.....				
	GRAND TOTAL TENDER SUM				
	AMOUNT OF TENDER SUM IN WORDS KENYA SHILLINGS.....				
	NAME AND ADDRESS OF CONTRACTOR.....				
	DATE;.....SIGNATURE.....				
	NAME AND ADDRESS OF WITNESS.....				
	DATE;.....SIGNATURE.....				