

SECTION -8

BILLS OF QUANTITIES

**INFRASTRUCTURE DEVELOPMENT OF AGROTECH PARK
AT MALWATHTHA, SEUSL**

**SOUTH EASTERN UNIVERSITY
OF SRI LANKA
OLUVIL**

**Summary for Infrastructure Development of AgroTech Park
at Malwaththa, SEUSL**

S.No	Allocated Place /Unit	Amount Rs
A	Preminalaries	
1	Biogas Unit	
2	Cattle Unit	
3	Polytunnel	
4	Net Houses	
5	Poultry (Broiler) Unit	
6	Layer Unit	
7	Electric Fence	
8	Buildings (Lab, Farm Manager Office & Canteen etc...)	
9	Wash room facility and parking area	
10	Machinery Yard, Parking place & other	
11	Sales center	
12	Weather center	
13	Asphalt Road (<i>including Asphalt, Concrete roads and Interlock path</i>)	
14	Gravel Road	
15	Security Hut	
16	Irrigation Canal (<i>side drain type-I side drain type-II and sluice gate</i>)	

**Summary for Infrastructure Development of AgroTech Park
at Malwaththa, SEUSL**

S.No	Allocated Place /Unit	Amount Rs
17	Landscaping	
18	Street Lamp and other electrical works	
19	Water tower and other water facilities	
A	Sub Total - 1	
B	Less: Discount (if Any)	
C	Sub Total - 2 (A - B)	
D	Add: Day Work Schedule	
E	Add Pro. Sum for Physical Contingencies	7,955,282.39
F	Add Pro. Sum for Price Escalation	6,934,812.88
G	Bid Amount (C + D + E + F)	
H	Add : VAT - 8%	
I	Grand Total Amount (G + H)	

Bid Amount in words:

VAT Reg. No:

Name & Address of the Bidder:

Signature of Bidder:

Company Seal:

Date:

Witness: (Name/Address/ Signature/Date)

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Infrastructure Developmnt of AgroTech Park at Malwaththa, SEUSL

A. Preliminaries

Item	Description	Unit	Qty.	Rate	Amount
	A.1. Preliminaries				
A.1.1	Allow provisional sum for providing Performance Guarantee	P.S	Allow	Sum	100,000.00
A.1.2	Overhead and management charge for Provisional Sum of above work in percentage	%		100,000.00	
A.1.3	Allow provisional sum for providing Advance Money Guarantee	P.S	Allow	Sum	300,000.00
A.1.4	Overhead and management charge for Provisional Sum of above work in percentage	%		300,000.00	
A.1.5	Allow provisional sum for insurance of works, plant & machinery, material, third party and workmen.	P.S	Allow	Sum	200,000.00
A.1.6	Overhead and management charge for Provisional Sum of above work in percentage	%		200,000.00	
A.1.7	Allow provisional sum for providing electricity for construction including connection from the CEB/ SEUSL mains and supply throughout the contract period.	P.S	Allow	Sum	500,000.00
A.1.8	Overhead and management charge for Provisional Sum of above work in percentage	%		500,000.00	
A.1.9	Allow provisional sum for providing water for drinking and construction including connection from the NWS&DB / SEUSL mains and supply throughout the contract period.	P.S	Allow	Sum	200,000.00
A.1.10	Overhead and management charge for Provisional Sum of above work in percentage	%		200,000.00	
A.1.11	Provide lump sum to construct furnish, maintain temporary storage shed, workshops and removal at end of contract.	L.S	Allow	Sum	
A.1.12	Provide lump sum to construct furnish Contractor's office & removal at end of contract.	L.S	Allow	Sum	

Infrastructure Developmnt of AgroTech Park at Malwaththa, SEUSL

A. Preminilaries

Item	Description	Unit	Qty.	Rate	Amount
A.1.13	Maintain Contractor's office.	Month	15.00		
A.1.14	Providing safety, Health and sanitary facilities for Contractor's staff.	Month	15.00		
A.1.15	Providing security and safeguarding the works, material and plant against damage, vandalism and trespass	Month	15.00		
A.1.16	Provide lump sum for demobilization, removal of all rubbish & debris and clean up site on completion, leveling all in good order and handing over	L.S	Allow	Sum	
A.1.17	Allow lump sum for providing "As Built" drawings, Operating & Maintenance manual as specified	L.S	Allow	Sum	
A.1.18	Allow lump sum for cross-sections and longitudinal sections of Asphalt, Concrete and Gravel roads work (Sub-base, base & As-built)	L.S	Allow	Sum	
A.1.19	Providing Construction Management up to completion and commissioning of building complexes.	Month	15.00		
A.1.20	Relocation of Utilities	P.S	Allow	Sum	200,000.00
A.1.21	Overhead and management charge for Provisional Sum of above work in percentage	%		200,000.00	
A.1.22	Provisional sum for providing samples, test & Quality Control reports and photographs for whole work	P.S	Allow	Sum	400,000.00
A.1.23	Overhead and management charge for Provisional Sum of above work in percentage	%		400,000.00	
A.1.24	Allow provisional sum for dewatering.	P.S	Allow	Sum	100,000.00
A.1.25	Overhead and management charge for Provisional Sum of above work in percentage	%		100,000.00	

Infrastructure Developmnt of AgroTech Park at Malwaththa, SEUSL

A. Preminilaries

Item	Description	Unit	Qty.	Rate	Amount
A.1.26	Rock requiring blasting & piling as directed by the engineer. Rate shall include blasting material internal transport coordination & getting approval from local authorities	P.S	Allow	Sum	200,000.00
A.1.27	Overhead and management charge for Provisional Sum of above work in percentage	%		200,000.00	
A.1.28	Allow provisional sum for providing electricity for every units, connection from the available electric post including wire piecing connector, kWh meter and necessary accessories.	P.S	Allow	Sum	250,000.00
A.1.29	Overhead and management charge for Provisional Sum of above work in percentage	%		250,000.00	
A.1.30	Allow lump sum for settingout of works	L.S	Allow	Sum	
A.1.31	Allow lump sum for Name board for the project in details	L.S	Allow	Sum	
A.1.32	Allow Provisional sum for Name board for every unit using 2 nos. G.I pipe legs and Name board as a AgroTech Park including box bar frame and fix 2 nos G.I pipe legs all necessary accessories details will be provide.	P.S	Allow	Sum	300,000.00
A.1.33	Overhead and management charge for Provisional Sum of above work in percentage	%		300,000.00	
A.1.34	Allow Provisional sum for obtaining development permit for buildings and any other permits from respective authorities	P.S	Allow	Sum	100,000.00
A.1.35	Overhead and management charge for Provisional Sum of above work in percentage	%		100,000.00	
A.1.36	Allow Provisional Sum for Adjusticator's Fees	P.S	Allow	Sum	100,000.00
A.1.37	Overhead and management charge for Provisional Sum of above work in percentage	%		100,000.00	
A.1.38	Overhead and management charge for Provisional Sum of works in percentage (Totalling of PS amounts of Biogas Unit, Cattle Unit, Polytunnel, Net Houses, Poultry(Broiler) Unit, Layer Unit, Electric Fence, Weather Center, Asphalt Road, Gravel Road, Landscapping and Water Tower- 2,475,000.00)	%		2,475,000.00	
	Sub total carried to summary:				

**1.BILL OF QUANTITIES FOR
CONSTRUCTION OF BIOGAS UNIT OF AGROTECH PARK AT MALWATHTHA, SEUSL.**

SUMMARY

Item No	Description	Amount
1.1	EXCAVATION & EARTH WORK	
1.2	CONCRETE WORK	
1.3	MASONRY WORKS	
1.4	WATER PROOFING WORK	
1.5	METAL WORKS	
1.6	FLOOR, WALL & CEILING FINISHES	
1.7	MISCELLANEOUS	25,000.00
	SUB TOTAL	

1.Bill of Quantities for

Construction of BioGas Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
1.1	<u>EXCAVATION & EARTH WORK</u> Site Clearing (clearing area shall extend 1m around the proposed building plot perimeter)				
1.1.1	Site preparation, Clearing site vegetation, removing bushes, shrubs & top soil to a depth not exceeding 150mm (6") and removing all debris away from site. <u>Excavation</u> Excavating , commencing from existing ground , in hard/ dense soil except rock requiring blasting . Rate shall include for earth work support, well compacted back filling and remove surplus materials away from site within 500m , all in accordance with drawings and specifications.	m ²	50.00		
1.1.2	Bulk excavation for Bio gas unit (max. excavation depth 4.5m) Manual excavation of soil for deposite tanks and drains	m ³	85.00		
1.1.3	0 to 1.5m	m ³	5.00		
1.1.4	1.5m to 3.0m	m ³	10.00		
	<u>Filling around the structures</u> Approved earth shall mean filling materials that comply to the following : The earth shall be free of vegetation, roots, boulders, easily decomposable materials, chemicals, industrial waste, plastic etc.				
1.1.5	Back filling & compacting around structures with selected approved earth available at site	m ³	30.00		
	Total Excavation and Earth works carried to Summary				

1.Bill of Quantities for

Construction of BioGas Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
1.2	<u>CONCRETE WORK</u> The Quality of the concrete should confirm to the relevant B.S., S.L.S. and ICTAD specification for Building works. <u>In situ Concrete</u> <u>Mass concrete 1:3:6 (25mm) screed poured in to ground : all in accordance with drawings</u>				
1.2.1	50 mm thick under structures <u>Grade 25 (1: 1 1/2: 3) (19mm) reinforced con. Poured into formwork ; all in accordance with drawings using mixer and vibrator</u>	m ³	2.00		
1.2.2	In bio gas structure	m ³	20.00		
1.2.3	In Drains and chambers <u>Form work</u> <u>Class-II timber formwork : all in accordance with drawings and specifications. formwork for footing , column , beams , lintel, walls, slabs</u>	m ³	25.00		
1.2.4	Shuttering for bio gas structure including class II timber joists and necessary props. Rate to include for removal	m ²	95.00		
1.2.5	Shuttering for drains and chambers including class II timber joists and necessary props. Rate to include for removal <u>Reinforcements</u>	m ²	82.00		
1.2.6	Furnish, fabricate, place and tie Tor steel 460N/mm ² including binding wire, cover and spacer blocks complete to complete order	Ton	1.50		
1.2.7	Furnish, fabricate, place and tie mild steel reinforcing round bars 250N/mm ² including binding wire, cover and spacer blocks to complete order	Ton	0.15		
	Total concrete works carried to Summary				
1.3	<u>MASONRY WORK</u> <u>Brick work</u> 225mm thick brick work in cement and sand 1:5 mix. subject to the approval of the quality of the bricks change 225mm thick				
1.3.1	In walls at deposite tanks. 225mm thick wall	m ³	4.95		
	Total Masonry works carried to Summary				

1.Bill of Quantities for

Construction of BioGas Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
1.4	<u>WATER PROOFING WORK</u>				
1.4.1	Water proofing internal face of bio gas unit with "Smart flex", "Tharoseal" or any other equivalent product marketed by specialist supplier. Protective screed not included. (Up to 3.5m level)	m ²	52.00		
	Total Damp Proofing & Water Proofing works carried to Summary				
1.5	<u>METAL WORKS</u>				
1.5.1	Gal.Steel Gratings for inlet chamber to the details in the drawings. 20mm rods at 25mm spacing, 50x50x5mm angle iron frame. All galvanized (0.9mx1m)	No.	1.00		
	Total metal works carried to Summary				
1.6	<u>FLOOR, WALL & CEILING FINISHES</u>				
1.6.1	Rendering 12mm thick in cement and sand 1:2 in exposed concrete surfaces of internal face of bio gas structure finished smooth with neat cement	m ²	62.00		
	Wall finishes 16mm thk. Plaster in cement sand 1:3 mix motar finished semi rough with trowel on internal masonry walls and floor of deposite tanks .				
1.6.2	Internal Surface of walls	m ²	25.00		
	Total Floor, Wall & Ceiling works carried to Summary				
1.7	<u>MISCELLANEOUS</u>				
1.7.1	Allow for providing GI piping, closing valve and other related works for Gas supply	P.S	Allow	Sum	25,000.00
	Total metal works carried to Summary				25,000.00

**2.BILL OF QUANTITIES FOR
CONSTRUCTION OF DAIRY CATTLE SHED OF AGROTECH PARK AT MALWATHTHA, SEUSL.**

SUMMARY

Item No	Description	Amount
2.1	EXCAVATION & EARTH WORK	
2.2	CONCRETE WORK	
2.3	MASONRY WORKS	
2.4	DAMP PROOFING/ WATER PROOFING WORK	
2.5	METAL WORKS	
2.6	ELECTRICAL INSTALLATION	
2.7	FLOOR & WALL	
2.8	PAINTING	
2.9	STEEL & ROOFING WORKS	
2.10	WATER SUPPLY, SANITORY & DRAINAGE	
SUB TOTAL		

**2.Bill of Quantities for
Construction of Dairy Cattle Shed of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
2.1	<u>EXCAVATION & EARTH WORK</u>				
2.1.1	Removal of top soil to a depth of 150mm and including disposal within 500m in side the site	L.S	Allow	Sum	
2.1.2	Excavation over site to reduce level,in any material except rock requiring blasting including disposing and leveling as directed upto a distance not exceeding 10.0m. <u>Excavation</u> Excavating , commencing from existing ground , in hard/ dence soil except rock requiring blasting . Rate shall include for earth work support, well compacted back filling and remove surplus materalis away from site within 500m , all in accordance with drawings and specifications.	m ³	200.00		
2.1.3	For column foundation	m ³	16.00		
2.1.4	For Wall/ RRM foundation/ Drains <u>Filling</u> Approved earth shall mean filling materials that comply to the following : The earth shall be free of vegetation, roots, boulders, easily decomposable materials, chemicals, industrial waste, plastic etc. filling to make up levels under floors and mark as in drawings, in 150 mm thick layers well rammed and consolidate. All in accordance with drawings and specifications.	m ³	30.00		
2.1.5	Imported selected gravel / hard core filling under floor, watering well rammed and consolidated in 75mm layers as directed.	m ³	250.00		
	Total Excavation and Earth works carried to Summary				
2.2	<u>CONCRETE WORK</u> The Quality of the concrete should confirm to the relevant B.S., S.L.S. and ICTAD specification for Building works. <u>Insitu Concrete</u> <u>Mass concrete 1:3:6 (25mm) screed poured in to ground : all in accordance with drawings</u>				
2.2.1	50 mm thick under column foundation	m ³	1.20		
2.2.2	50 mm thick under random rubble foundation	m ³	3.00		

**2.Bill of Quantities for
Construction of Dairy Cattle Shed of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
	<u>Grade 25 (1: 1 1/2: 3) (19mm) reinforced con. Poured into formwork ; all in accordance with drawings using mixer and vibrator</u>				
2.2.3	In column footings	m ³	4.80		
2.2.4	In Sill Beams/ Capping beams/ Tie beams	m ³	24.00		
2.2.5	In Column Shaft	m ³	6.00		
2.2.6	In Drains,Feed tables and waterers	m ³	15.00		
	<u>Grade 25 (1: 1 1/2: 3) (19mm) in ground floor concrete</u>				
2.2.7	Grade 20 concrete (100 mm) on ground floor <u>The surface shall be smooth troweled finish with grooves formed as shown in drawing</u>	m ³	60.00		
	<u>Form work</u> <u>Class-II timber formwork : all in accordance with drawings and specifications. formwork for footing , column , beams , lintel, walls, slabs including for props and removal</u>				
2.2.8	To sides of column foundation	m ²	20.00		
2.2.9	To sides of Column Shaft	m ²	85.00		
2.2.10	In Sill Beams/ Capping beams/ Tie beams	m ²	190.00		
2.2.11	In Drains, feed tables and waterers	m ²	135.00		
	<u>Reinforcements</u>				
2.2.12	Furnish, fabricate, place and tie Tor steel 460N/mm ² including binding wire, cover and spacer blocks complete to complete order	Ton	2.30		
2.2.13	Furnish, fabricate, place and tie mild steel reinforcing round bars 250N/mm ² including binding wire, cover and spacer blocks to complete order	Ton	0.40		
	<u>Expansion Joint</u>				
2.2.14	Expansion joint , 75mm depth , 5-8 mm width, for concrete floor including flexible filling material as per detail drawings	m	150.00		
	<u>Mesh reinforcement</u> <u>Mild steel Mesh reinforcement: all in accordance with drawings and specifications</u>				
2.2.15	Supply and lay mild steel mesh R6@200mm B/W In ground Floor	m ²	550.00		
	Total concrete works carried to Summary				

**2.Bill of Quantities for
Construction of Dairy Cattle Shed of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
2.3	<u>MASONARY WORK</u>				
	<u>Rubble work</u>				
	<u>Random rubble work in cement sand and motar 1:5 all in accordance with drawings and specification</u>				
2.3.1	In RRM foundations/ RRM Walls	m ³	45.00		
	<u>Brick work</u>				
	225mm thick Brick wall in 1:5 cement mortar in ground floor.				
2.3.2	In walls at ground floor.	m ³	38.25		
	Total Masonry works carried to Summary				
2.4	<u>DAMP PROOFING/ WATER PROOFING WORK</u>				
2.4.1	Damp proof membrane under floor concrete , 1000 gauge polythene	m ²	550.00		
2.4.2	Water proofing foot baths with "Smart flex", "Tharoseal" or any other equivalent product marketed by specialist supplier.	m ²	6.50		
	Total DAMP PROOFING & WATER PROOFING works carried to Summary				
2.5	<u>METAL WORKS</u>				
	<u>Doors, Windows & Grill Works</u>				
	Aluminium doors, windows and partitions shall confirm to the following requirements: Aluminium alloy should confirm to- BS 1474:1972 Surface treatment shall confirm to BS 1615 and BS 3987 Anodized coating thickness should be 15 +/- 5 microns Minimum section thickness 1.6mm door frame , 1.5 mm window frame All screws should be stainless steel. But hinges and bar type hinges should be Aluminium or Stainless Steel. Aluminium extrusions shall be of M/S ALUMAX (PVT) LTD and by M/S LANKA ALUMINIUM INDUSTRIES LTD and M/S HEMALCO LTD. Or equivalent.				

**2.Bill of Quantities for
Construction of Dairy Cattle Shed of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
2.5.1	Openable Single Sash Door, Type D1, Size 1200x2100 mm. (Aluminium Composite Panel & Glazed) with Fixed Glass on Top. Natural aluminium single sash butt hinged openable door with middle rail and fixed glass on top , panelling with two layers of 4mm thick aluminium composite panel on both side and glazed with 5mm thick tinted glass panes, neoprene and wood beading, gaskets, pop rivots, threaded bar with nut and approved quality cylindrical door lock of Union Brand or approved equivalent lock, butt hinges, door handle with cap nut.	Nr	3.00		
2.5.2	Sliding Window , Type W1, Size 1200x2000 mm. Natural aluminium, consisting of 5mm thick glass panes , lock, roller, screws, gaskets, nut felt, pop rivots, cap, plastic guide etc. As per the members , sizes and details given in Drawing	Nr	1.00		
2.5.3	Casement Window with Louvers on Top (2 Bays) , Type W2, Size 1200x1200 mm. Natural aluminium casement window double sash with louvers on top, consisting of 5mm thick glass panes, casement lock, screws, pop rivots, gaskets, door hinge, weather strip etc	Nr	1.00		
2.5.4	STEEL FENCE TYPE 1 - Fabricate & Fixing of Steel fence TYPE 1, frame vertical support posts 100mm dia., 3mm tk Hollow sections @ 1.5m c/c and horizontal bars 75mm dia., 3mm tk Welded to posts. all members shall be treated with two coats of Zinc rich anti-Corrosive paint. the members , sizes and details given in Drawing	m	170.00		
2.5.5	STEEL GATE TYPE 1 - Fabricate & Fixing of Steel gate TYPE 1, two vertical support posts 100mm dia., 3mm tk Hollow sections both side of 1.0m opening, sash frame of 75mm dia., 3mm tk hollow sections. all members shall be treated with two coats of Zinc rich anti- Corrosive paint. the members , sizes and details given in Drawing	Nos	11.00		
2.5.6	STEEL GATE TYPE 2 - Fabricate & Fixing of Steel gate TYPE 1, two vertical support posts 100mm dia., 3mm tk Hollow sections both side of 1.5m opening, sash frame of 75mm dia., 3mm tk hollow sections. all members shall be treated with two coats of Zinc rich anti- Corrosive paint. the members , sizes and details given in Drawing	Nos	5.00		

**2.Bill of Quantities for
Construction of Dairy Cattle Shed of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
2.5.7	Fabricate & Fixing of Steel head locks using steel hollow sections. all members shall be treated with two coats of Zinc rich anti- Corrosive paint. the members , sizes and details given in Drawing	m	21.00		
2.5.8	Fabricate & Fixing of cubical partitions using steel hollow sections. all members shall be treated with two coats of Zinc rich anti- Corrosive paint. the members , sizes and details given in Drawing	Nos	12.00		
2.5.9	Supply and install brisket board (Smooth surfaced timber or plastic, half round, 100mm high curb mounted on floor to support brisket of animal)	m	27.00		
2.5.10	Supply and install neck rail (GI Pipe mounted on cubical partition at location)	m	27.00		
2.5.11	Steel Gratings for RCC drains to the details in the drawings. Rate shall include for two coats of anticorrosive paint.	m	40.00		
2.5.12	Allow for Supply and fix two numbers of stainless steel waterer, Including accessories (Size: 1.5x0.5x0.5m)	P.S	Allow	Sum	40,000.00
	Total metal works carried to Summary				
2.6	<u>ELECTRICAL INSTALLATION</u> All materials, equipment's, wiring and workmanship shall confirm to local codes of specifications, B.S Standards, latest I.E.E regulations and Ceylon Electricity Board specifications. All electrical lines shall be roof suspended and conduite encased.	Note			
	<u>Cables</u>	Note			
2.6.1	Cables and conduits , trunking, tray with necessary fixing between main boards, sub-boards and final boards including terminations; all in accordance with drawings and specification. 4x1CX 6 mm ² CU/PVC/SWA/PVC cable from CEB meter to MDB	m	50.00		
	<u>Distribution Boards.</u>				
	<u>Distribution Boards with surface type enclosure and accessories as per drawing</u>				
2.6.2	Main Distribution Board consisting of ELCB, MCBs, main switch, Surge Protection Device (SPD) etc. all complete to working order in suitable enclosure to Engineers approval.	P.S	Allow	Sum	150,000.00

**2.Bill of Quantities for
Construction of Dairy Cattle Shed of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
	<p><u>POWER INSTALLATION</u> Switches and socket outlets to be 'ORANGE' or approved equivalent</p> <p><u>Final sub circuit point wiring</u> The minimum size of the 13A, 15A plug points to be used for point wiring shall be in 2x1Cx2.5mm² Cu/PVC/PVC cable and 2.5mm² protective earth in cable trucking/ conduit as per specification. Final sub-circuits including all necessary cables and wires, terminations, conduits, fixings and the like from the relevant distribution board to the power outlet including socket outlets.</p>	Note			
2.6.3	Supply and installation of 40A handle type changeover switch with powder coated casing as per the specification to working order	Nos	1.00		
2.6.4	Supply, laying and installation wall mounted 13 Amp switched socket outlet complete with final termination and all necessary accessories as per specification and drawings. (Rate shall include with the fitting)	Nos	10.00		
2.6.5	Supply, laying and installation wall mounted 15 Amp switched socket outlet complete with final termination and all necessary accessories as per specification and drawings. (Rate shall include with the fitting)	Nos	5.00		
	<p><u>LIGHTING INSTALLATION</u> <u>Final sub circuit point wiring</u> Final sub circuit point wiring Switches and socket outlets to be 'ORANGE' or approved equivalent Final sub-circuits including all necessary cables and wires, terminations, conduits, trunking, tray, fixings and the like from the relevant distribution board to the light fitting including switches; all in accordance with drawings and specifications</p> <p><u>Light fittings & fans</u> All lamp fittings shall be Phillips, Thorn or equivalent make. Preference will be given to reputed European/USA manufactured items. Each fitting shall include bulbs, internal wiring, reflector, hanging and fixing material and be complete to working order</p>				
2.6.6	Supply and Installation of Ceiling fan 1400mm Sweep (KDK,National,Mitsubishi,Hittachi) with wiring	Nos	1.00		

**2.Bill of Quantities for
Construction of Dairy Cattle Shed of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
2.6.7	Supply and Installation of CFL Pendent Lamp 60 W with reflector, Orange or equivalent including wiring & switch to working order	Nos	28.00		
2.6.8	Supply and install approved type of Exhaust or blower fan 600mm dia. (K.D.K. or Equivalent) to launging area and calving pen	Nos	6.00		
	<u>Earthing system</u>				
2.6.9	Allow for suitably designed earthing system complete with all necessary materials including wires, and hardware to achieve the required earth impedance including earth pit and cover fixed complete and shall comply with BS specifications and latest IEE wiring regulations	Nos	1.00		
	<u>Inspection and Testing</u>				
2.6.10	Testing the total electrical installation and submit a test certificate issued by a chartered engineer including detail test report acceptable to the supply authority and commissioning of the system.	L.S	Allow	Sum	
	Total electrical installation carried to Summary				
2.7	<u>FLOOR , WALL FINISHES</u>				
	<u>Floor finishes</u>				
2.7.1	Ground Floor Rendering 12mm thick in cement and sand 1:2 in exposed concrete surfaces of floors (in milking parlour, pavements, feed table and milk room) finished smooth with neat cement slurry, grooves to be maintained as shown in detail. Sloped to be maintained as indicated in drawing.	m2	45.00		
2.7.2	Homogeneous vitreous porcelain glazed or unglazed floor tile 12" x 12" paving on 1:2 cement & sand bedding and pointed with tile grout to match the tile. (Heavy duty), Rate includes the cost of 1:2 motar leveling bed	m2	30.00		
	<u>Wall finishes</u>				
	<u>16mm thk. Plaster in cement sand 1:3 mix motar finished semi rough with trowel on external masonry walls . Reaveals not measured separately</u>				
2.7.3	External & Internal Surface of walls	m ²	340.00		
	Total Floor, Wall & Ceiling works carried to Summary				

**2.Bill of Quantities for
Construction of Dairy Cattle Shed of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
2.8	<u>PAINTING</u> Painting walls with one coat of wall primer and two coats of weather sheild/ emulsion				
2.8.1	In Plastered internal walls	m ²	170.00		
2.8.2	In plastered external walls	m ²	170.00		
	Total painting works carried to Summary				
2.9	<u>STEEL & ROOFING WORKS</u> <u>Structural steel works</u> Supply, fabricate and installation of structural steel works. ; all in accordance with drawings and specifications. Rate shall include for applying of two coats of Zinc rich anticorrosive paint.				
2.9.1	Supply , fabricate and erect main roof frame in 200 x 100 x 21 Kg/m structural "I" Section,including monitor roof in 50x50x3mm angle iron, with 12mm base plate (200x200) and 4 nos 16mm (gr 8.8) Galvenized anchor bolts per connection, 8mm MS cleats (150x150) at 1200mm c/c for purlins to the drawing <u>Purlin</u> supply and fix Galvanize iron (GI) roof purling, all in accordance with drawings and specifications to complete order.	Nos	8.00		
2.9.2	Supplying and fixing 'C' purlin 150x65x20mm - 2mm	m	896.00		
2.9.3	<u>Roof covering</u> Supplyingandfixing 0.47mm thick Zinc Aluminium and Colour coated roofing sheets on steel framework. (Steel frame work and ridge covering measured separately)	m ²	824.00		
2.9.4	Supplying and fixing Zinc Aluminium and Colour coated Ridge caps.	m	45.00		
2.9.5	<u>Roof insulation</u> Supply and lay double sided 8mm thick aluminium foil heat reflecting material to underside of roof supported with Gauge 10, 3" x 3" GI mesh.	m ²	824.00		
2.9.6	<u>Valance Board</u> Supplying and fixing 0.47mm thick Zn/Al and Colour coated 300mm width sheet for barge, valance, fascia fixed to roof frame including box bar with necessary screws.	m	180.00		
	Total steel & Roofing works carried to Summary				

**2.Bill of Quantities for
Construction of Dairy Cattle Shed of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
2.10	<u>WATER SUPPLY, SANITORY & DRAINAGE</u>				
2.10.1	Supply and fix 500x500mm stainless steel lab sink with single bowl & single drain by mascons or approved equivalent with 5 year written warranty from the authorized agent. including PVC bottle trap and water connection with flexible hose, all complete to working order. Rate shall include for swan neck tap (Water Tec or equivalent.)	Nr	2.00		
2.10.2	Allow for Supplying laying and/or fixing (20mm) 3/4" dia. P.V.C. water supply pipe line (Type 1000 including Specials) to complete order as directed.	P.S	Allow	Sum	25,000.00
2.10.3	Allow for Supplying laying and/or fixing over hung 40mm dia. P.V.C. water supply pipe line to cattle shed (Type 1000 including Specials and approved angle valve) to complete order as directed.	P.S	Allow	Sum	100,000.00
2.10.4	Allow for Supplying and fixing 50mm dia. P.V.C waste pipe to lab sinks (type 600, including Specials)	P.S	Allow	Sum	20,000.00
2.10.5	Allow for Supplying and fixing 100mm dia. P.V.C waste pipe to milk room (type 600, including Specials)	P.S	Allow	Sum	20,000.00
2.10.6	Construction of waste water brick Man hole size in 600mm x 600mm x up to 600mm depth internally built in 225mm thick brick work and 1:2:4(20mm) base including 1:2 cement sand mix plastering in exposed faces and make proper slope drainage with neat cement floating including 75mm thick 1:2:4(20mm) cover slab, reinforced in 6mm dia M/S at 75mm c/c both ways with lifting handle to working order as per plan and directed.	Nr	4.00		
	Total metal works carried to Summary				

3.BILL OF QUANTITIES FOR

CONSTRUCTION OF POLYTUNNEL OF AGROTECH PARK AT MALWATHTHA, SEUSL

SUMMARY		
Nos.	Description	Amount / Rs.
3.01	Excavator and Earth Work	
3.02	Concreter	
3.03	Form Work	
3.04	Masonry work	
3.05	Metal and Covering(Polythene) Works	
3.06	Plasterer	
3.07	Plumbing work	
3.08	Electrical Works	
Sub Total for 1 no. Polytunnel		
Sub Total for 4 nos. Polytunnel		

**3. Bill of Quantities for
Construction of Polytunnel of AgroTech Park at Malwatta, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
3.01	Excavator and Earth Work				
3.01.01	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	310.00		
3.01.02	Excavation for foundation to fixed 50 DN dia G.I pipe (2.3 mm thick) column posts pits and perimeter block work foundation in hard soil as directed.	Cu.m	23.30		
3.01.03	Approved imported river sand or selected earth filling for Polytunnel area as directed.	Cu.m	83.20		
3.01.04	Imported selected gravel / hard core filling under floor, watering well rammed and consolidated in 75mm layers as directed.	Cu.m	9.30		
	Sub total carried to summary				
3.02	Concrete Work				
3.02.01	1:2:4 (20 mm) cement sand mix concrete in fixing of 50DN dia G.I pipe (2.3mm thick) column posts and 150x200 mm conc. foundation as directed.	Cu.m	17.60		
	Sub total carried to summary				
3.03	Form Work				
3.03.01	Form work in G.I. post fixing concrete including class ii timber joints and necessary props. Rate include for removal	Sq.m	121.70		
	Sub total carried to summary				
3.04	Masonry work				
3.04.01	225mm thick brick work in cement and sand 1:5 mix for sump guard wall.	Cu.m	3.30		
3.04.02	200mm thick solid block work in cement and sand 1:5 mix (16"x8"x8")	Sq.m	70.40		
	Sub total carried to summary				

**3. Bill of Quantities for
Construction of Polytunnel of AgroTech Park at Malwatta, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
3.05	Metal and Covering(Polythene) Works				
3.05.01	Supplying and fixing of 50DN(2") G.I. pipe (thickness - 2.3mm) in column posts and 40DN(1 1/2") G.I. pipe (thickness - 2.3mm) with proper bending in Truss with cleats and 12mm dia mild steel for tidng between posts and necessary accessories (Bolts &Nuts) and cutting, bending & welding with one coat of anti-crossive, two coats of enamel paint and as directed.	Nos.	16.00		
3.05.02	Supplying and fixing of 50DN(2") G.I. pipe (thickness - 2.3mm) in column other posts and necessary accessories, cutting, bending & welding with one coat of anti-crossive, two coats of enamel paint and as directed.	L.m	60.00		
3.05.03	Supplying and fixing of 40DN(1 1/2") G.I. pipe (thickness - 2.3mm) for entrance leg connecting rafter and necessary accessories (Bolts &Nuts), cutting, bending & welding with one coat of anti-crossive, two coats of enamel paint and as directed.	L.m	21.00		
3.05.04	Supplying and fixing of 25 DN G.I pipe (thickness - 2.3mm) for purlin and side bars including necessary accessories (Bolts &Nuts) and cutting, bending & welding with one coat of anti-crossive, two coats of enamel paint and as directed.	L.m	728.00		
3.05.05	Tor steel for sump tower base.	kg.	25.00		
3.05.06	Mild steel for slab.	kg.	89.00		
3.05.07	Supplying and fixing of double sash door with 25x25mm GI box bar (thickness - 2.0mm) & necessary accessories including cutting, welding, hinges, handle and locking arrangement & Pad lock - 1 No., anticorrosive and two coats of enamel paint as directed.	Nos.	2.00		
3.05.08	Supplying and fixing of single sash door with 25x25mm GI box bar (thickness - 2.0mm) & necessary accessories including cutting, welding, hinges, handle and locking arrangement & Pad lock - 1 No., anticorrosive and two coats of enamel paint as directed.	Nos.	2.00		

**3. Bill of Quantities for
Construction of Polytunnel of AgroTech Park at Malwatta, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	Top and Side Covering(Polythene)				
3.05.09	Supplying and fixing specified Agriculture UV Treated diffused film. 800guage/200 micron thickness minimum 85% light transmission and cover anti-condensive property polythene with necessary binding clip, repair tap for joint and as directed. (Minimum 5 yrs warranty)	Sq.m	559.00		
	Sub total carried to summary				
3.06	Plasterer				
3.06.01	16mm thick 1:5 cement sand smooth plastering in perimeter block.	Sq.m	143.90		
	Sub total carried to summary				
3.07	Plumbing work				
3.07.01	Supplying and fixing water pump with 0.75 HP, 25mm suction and dilivery with necessary wiring and foot valve ,wiring, starter, 15 Amp SOL switch etc.	No.	1.0		
3.07.02	Supplying & fixing Plastic Sump Tank (2000 litre) in earth with necessary specials.	No.	1.0		
3.07.03	Pipe PVC 32mm to supplied and fixed. (Type 1000)	Lm	120.0		
3.07.04	Pipe PVC 25mm to supplied and fixed. (Type 1000)	Lm	20.0		
3.07.05	Ball Valve 32mm supplied and fixed.	Nos.	6.0		
3.07.06	Supplying and fixing of Springler with necessary accessories	P.S	Allow	Sum	5,000.00
	Sub total carried to summary				
3.08	Electrical Works				
3.08.01	Supplying and fixing of Pandent Lamp with wiring	Nos.	10.0		
3.08.02	Supplying and fixing of Exhaust Fan with steel stand and necessary accessories	P.S	Allow	Sum	200,000.00
3.08.03	Supplying and fixing of DB with necessary accessories	P.S	Allow	Sum	20,000.00
3.08.04	Supplying and fixing of 2" Dia, 6' long G.I. Pipe as earth electrode	Nos.	1.00		
	Sub total carried to summary				

**4.BILL OF QUANTITIES FOR
CONSTRUCTION OF NET HOUSE OF AGROTECH PARK AT MALWATHTHA,
SEUSL.**

SUMMARY

Nos.	Description	Amount / Rs.
4.01	Excavator and Earth Work	
4.02	Concreter	
4.03	Form Work	
4.04	Masonry work	
4.05	Metal and Covering(Net) Works	
4.06	Plasterer	
4.07	Plumbing work	
4.08	Electrical Works	
Sub Total for 3 Nos. of Net House		

**4.Bill of Quantities for
Construction of Net House of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	4.01 Excavator and Earth Work				
4.01.01	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	m ²	441.00		
4.01.02	Excavation for foundation to fixed 50 DN G.I pipe column posts pits and perimeter block work foundation in hard soil as directed.	m ³	52.80		
4.01.03	Approved imported river sand or selected earth filling for Polytunnel area as directed.	m ³	117.60		
4.01.04	Imported selected gravel / hard core filling under floor, watering well rammed and consolidated in 75mm layers as directed.	m ³	15.60		
	Sub total carried to summary				
	4.02 Concrete				
4.02.01	1:2:4 (20 mm) cement sand mix concrete in fixing of 50DN die G.I pipe column posts and 150x200 mm conc. foundation as directed.	m ³	29.10		
	Sub total carried to summary				
	4.03 Form Work				
4.03.01	Form work in G.I. post fixing concrete including class ii timber joints and necessary props. Rate include for removal	m ²	250.80		
	Sub total carried to summary				
	4.04 Masonary work				
4.04.00	225mm thick brick work in cement and sand 1:5 mix for sump guard wall.	m ³	9.90		
4.04.01	200mm thick solid block work in cement and sand 1:5 mix (16"x8"x8")	m ²	90.90		
	Sub total carried to summary				

**4.Bill of Quantities for
Construction of Net House of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	4.05 Metal and Covering(Net) Works				
4.05.01	Supplying and fixing of 50DN(2") G.I. pipe (thickness - 2.3mm) in column posts and 40DN(1 1/2") G.I. pipe (thickness - 2.3mm) with proper bending in Truss with cleats and 12mm dia mild steel for tidng between posts and necessary accessories (Bolts &Nuts) and cutting, bending & welding with one coat of anti-crossive, two coats of enamel paint and as directed.	Nos.	9.00		
4.05.02	Supplying and fixing of 50DN(2") G.I. pipe (thickness - 2.3mm) in column other posts and necessary accessories, cutting, bending & welding with one coat of anti-crossive, two coats of enamel paint and as directed.	L.m	108.00		
4.05.03	Supplying and fixing of 40DN(1 1/2") G.I. pipe (thickness - 2.3mm) for entrance leg connecting rafter and necessary accessories (Bolts &Nuts), cutting, bending & welding with one coat of anti-crossive, two coats of enamel paint and as directed.	L.m	45.00		
4.05.04	Supplying and fixing of 25 DN G.I pipe (thickness - 2.3mm) for purlin and side bars including necessary accessories (Bolts &Nuts) and cutting, bending & welding with one coat of anti-crossive, two coats of enamel paint and as directed.	L.m	1062.00		
4.05.05	Tor steel for sump tower base.	kg.	75.00		
4.05.06	Mild steel for slab.	kg.	306.00		
4.05.07	Supplying and fixing of double sash door with 25x25mm GI box bar (thickness - 2.0mm) & necessary accessories including cutting, welding, hinges, handle and locking arrangement & Pad lock - 1 No., anticorrosive and two coats of enamel paint as directed.	Nos.	6.00		

**4.Bill of Quantities for
Construction of Net House of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	Top and Side Covering(Net)				
4.05.08	Supplying and fixing of insect free shade Nets 70%(5years warranty) with necessary binding clip as directed. (for 1Hut)	m ²	298.00		
4.05.09	Supplying and fixing of insect free shade Nets 50%(5years warranty) with necessary binding clip as directed. (for 2Huts.)	m ²	596.00		
	Sub total carried to summary				
	4.06 Plasterer				
4.06.01	16mm thick 1:5 cement sand smooth plastering in perimeter block.	m ²	234.00		
	Sub total carried to summary				
	4.07 Plumbing work				
4.07.01	Supplying and fixing water pump with 0.75 HP, 25mm suction and delivery with necessary wiring and foot valve ,wiring, starter, 15 Amp SOL switch etc.	No.	3.00		
4.07.02	Supplying & fixing Plastic Sump Tank (2000 litre) in earth with necessary specials.	No.	3.00		
4.07.03	Pipe PVC 32mm to supplied and fixed. (Type 1000)	Lm	240.00		
4.07.04	Pipe PVC 25mm to supplied and fixed. (Type 1000)	Lm	75.00		
4.07.05	Ball Valve 32mm supplied and fixed.	Nos.	18.00		
4.07.06	Supplying and fixing of Springler with necessary accessories	P.S	Allow	Sum	15,000.00
	Sub total carried to summary				
	4.08 Electrical Works				
4.08.01	supplied and fixed of Pandent Lamp with wiring	Nos.	24.00		
4.08.02	Supplying and fixing of DB with necessary accessories	P.S	Allow	Sum	60,000.00
4.08.03	Supplying and fixing 2" Dia, 6' long G.I. Pipe as earth electrode	Nos.	1.00		
	Sub total carried to summary				

**5.BILL OF QUANTITIES FOR
CONSTRUCTION OF BROILER CHICKEN UNIT OF AGROTECH PARK AT MALWATHTHA,
SEUSL.
SUMMARY**

Item No	Description	Amount
5.1	EXCAVATION & EARTH WORK	
5.2	CONCRETE WORK	
5.3	MASONRY WORKS	
5.4	DAMP PROOFING WORKS	
5.5	METAL WORKS	
5.6	ELECTRICAL INSTALLATION	
5.7	FLOOR, WALL & CEILING FINISHES	
5.8	PAINTING	
5.9	ROOFING WORKS	
5.10	WATER SUPPLY & DRAINAGE	
SUB TOTAL		

**5.Bill of Quantities for
Construction of Broiler Chicken unit of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
5.1	<u>EXCAVATION & EARTH WORK</u> <u>Site Clearing (clearing area shall extend 3m around the proposed building plot perimeter)</u>				
5.1.1	Removal of top soil to a depth of 150mm and including disposal within 500m in side the site	m ²	300.00		
	<u>Excavation</u> Excavation for foundations in any material (except rock requiring blasting) up to 5'-0" (1500mm) depth, part return fill in and ram and surplus deposited within site as directed.				
5.1.2	For column foundation	m ³	13.20		
5.1.3	For RRM wall	m ³	15.00		
	<u>Earth Filling</u> Approved selected gravel /hard Earth spreading , leveling watering and compaction, filling in (6") 150 mm thick layers in respected area				
5.1.4	Imported selected gravel / hard core filling for land preparation and under floor, watering, well rammed and consolidated in 75mm layers as directed.	m ³	210.00		
	Total Excavation and Earth works carried to				
5.2	<u>CONCRETE WORK</u> The Quality of the concrete should confirm to the relevant B.S., S.L.S. and ICTAD specification for Building works. <u>Insitu Concrete</u> <u>Mass concrete 1:3:6 (25mm) screed poured in to ground : all in accordance with drawings</u>				
5.2.1	50 mm thick under column foundation	m ³	1.20		
5.2.2	50 mm thick under random rubble foundation	m ³	1.50		
	<u>Grade 25 (1: 1 1/2: 3) (19mm) reinforced con. Poured into formwork ; all in accordance with drawings using mixer and vibrator</u>				
5.2.3	In column footings	m ³	4.50		
5.2.4	In Floor level Tie Beam	m ³	10.00		
5.2.5	In Sill Beams/ Capping beams	m ³	4.00		
5.2.6	In Column Shaft	m ³	4.20		
5.2.7	In Roof level Tie Beam	m ³	4.45		
5.2.8	In Vanity slab in research unit	m ³	1.80		

**5.Bill of Quantities for
Construction of Broiler Chicken unit of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
	<u>Grade 25 (1: 1 1/2: 3) (19mm) in ground floor concrete pored on to DPM placed on leveled ground</u>				
5.2.9	Grade 25 concrete (75 mm thick) on ground floor finished smooth with trowelling manually. Rate shall include for grooving as per drawings Form work <u>Class-II Timber formwork : all in accordance with drawings and specifications. formwork for footing , column , beams , lintel, walls, slabs including for removing</u>	m ³	22.00		
5.2.10	To sides of column foundation	m ²	19.00		
5.2.11	To sides of Column Shaft	m ²	60.00		
5.2.12	To sides of ground level Tie Beams	m ²	45.00		
5.2.13	To sides of Sill/ Capping Beams	m ²	22.00		
5.2.14	To Vanity in research unit	m ²	19.80		
5.2.15	To Roof Tie Beams	m ²	70.00		
	<u>Reinforcements</u>				
5.2.16	Furnish, fabricate, place and tie Tor steel 460N/mm ² including binding wire, cover and spacer blocks complete to complete order	Ton	1.00		
5.2.17	Furnish, fabricate, place and tie mild steel reinforcing round bars 250N/mm ² including binding wire, cover and spacer blocks to complete order	Ton	0.15		
	<u>Expansion Joint</u>				
5.2.18	Polystyrene expansion joint , 75mm depth , 5-8 mm width, for concrete floor including flexible filling material as per detail drawings	m	200.00		
	Total concrete works carried to Summary				
5.3	<u>MASONARY WORK</u>				
	<u>Rubble work</u> <u>Random rubble work in cement sand and motar 1:5 all in accordance with drawings and specification</u>				
5.5.1	In RRM foundations/ RRM Walls	m ³	20.00		
	<u>Brick work</u> 225mm thick Brick wall in 1:5 cement mortar in ground floor.				
5.5.2	In walls at ground floor.	m ³	23.00		
	Total Masonry works carried to Summary				

**5.Bill of Quantities for
Construction of Broiler Chicken unit of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
5.4	<u>DAMP PROOFING/ WATER PROOFING WORK</u>				
5.4.1	Damp proof membrane under floor concrete , 1000 gauge polythene	m ²	247.00		
	Total DAMP PROOFING & WATER PROOFING works carried to Summary				
5.5	<u>METAL WORKS</u>				
	<u>Doors, Windows & Grill Works</u>				
	Aluminium doors, windows and partitions shall conform to the following requirements: Aluminium alloy should confirm to- BS 1474:1972 Surface treatment shall confirm to BS 1615 and BS Anodized coating thickness should be 15 +/- 5 microns Minimum section thickness 1.6mm door frame , 1.5 mm window frame All screws should be stainless steel. But hinges and bar type hinges should be Aluminium or Stainless Steel. Aluminium extrusions shall be of ALUMAX or by LANKA ALUMINIUM or equivalent.				
5.5.1	Openable Single Sash Door, Type D1, Size 1200x2100 mm. (Aluminium Composite Panel & Glazed) with Fixed Glass on Top. Natural aluminium single sash butt hinged openable door with middle rail and fixed glass on top , panelling with two layers of 4mm thick aluminium composite panel on both side and glazed with 5mm thick tinted glass panes, neoprene and wood beading, gaskets, pop rivots, threaded bar with nut and approved quality cylindrical door lock of Union Brand or approved equivalent lock, butt hinges, door handle with cap nut.	Nr	3.00		
5.5.2	Steel Framed Grilled Door, Type D2, Size 1200x2100 mm. Door frame 100x50x3mm steel box frame. Galvanized steel wire mesh (poultry netting) square pattern, 50mm x 50mm (guage10). mesh welded to steel door sash frame of 50x50x3mm angle iron as per drawing. Including 150 mm bolt lock at middle, Hasp and plate. complete with 3No. 100mm M-S Butt Hinges . Rate shall include for applying two coats of Zinc rich anti- Corrosive spray paint.	Nr	8.00		

**5.Bill of Quantities for
Construction of Broiler Chicken unit of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
5.5.3	Casement Window with Louvers on Top (2 Bays) , Type W1, Size 1200x1200 mm. Natural aluminium casement window double sash with louvers on top, consisting of 5mm thick glass panes, casement lock, screws, pop rivots, gaskets, door hinge, weather strip etc	Nr	2.00		
5.5.4	INTERNAL GRILLS - Fabricate & Fixing of Steel frame, frame panel size max 1650mm x 1200mm, vertical & horizontal members 35mm x 35mm x 3mm single angle iron, fixed within RCC columns/ beams or steel box frame as per drawing to recive GI mesh. Rate shall include for fixing with No.10, 50mm counter sunk iron screws and <u>Galvanized steel wire mesh square pattern, 50x50mm(guage10) welded to steel frame.</u> Welded area shall be treated with two coats of Zinc rich anti-Corrosive paint. In External walls of the building and Monitor roof.	m ²	216.00		
5.5.5	PERIMETER GRILLS - Fabricate & Fixing of Steel frame, frame panel size max 1650mm x 1200mm, vertical & horizontal members 35mm x 35mm x 3mm single angle iron, fixed within RCC columns/ beams or steel box frame as per drawing to recive GI mesh. Rate shall include for fixing with No.10, 50mm counter sunk iron screws and <u>Galvanized steel wire mesh square pattern, 50x50mm (guage10) combined with hot dipped galvanized 19x19mm-(1.8kg/m2) hardware cloth (small mesh size net) both mesh welded to steel frame.</u> Welded area shall be treated with two coats of Zinc rich anti- Corrosive paint. In External walls of the building and Monitor roof.	m ²	175.00		
5.5.6	Supply and fabricate 50x100x3mm GI steel box section frame (beams) to support grill work	m	70.00		
5.5.7	Supply and fabricate 100x100x3mm GI steel box section frame (columns) to support grill work Item 6, 7 - Welded area shall be treated with Zinc rich anti- Corrosive paint	m	44.00		
	Total metal works carried to Summary				

**5.Bill of Quantities for
Construction of Broiler Chicken unit of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
5.6	<p><u>ELECTRICAL INSTALLATION</u> All Electrical works carried out shall comply with the latest local authority standard code of practice IET wiring regulations 17th edition (BS 7671 : 2008 incorporating amendment number 3 : 2015) All electrical lines shall be roof suspended and conduite encased.</p> <p><u>Cables</u></p>	Note Note			
5.6.1	<p>Cables and conduits , trunking, tray with necessary fixing between main boards, sub-boards and final boards including terminations; all in accordance with drawings and specification. 4x1CX 6 mm2 CU/PVC/SWA/PVC cable from CEB meter to MDB</p> <p><u>Distribution Boards.</u> <u>Distribution Boards with surface type enclosure and accessories as per drawing</u></p>	m	25.00		
5.6.2	<p>Main Distribution Board consisting of ELCB, MCBs, main switch, Surge Protection Device (SPD) etc. all complete to working order in suitable enclosure to Engineers approval.</p> <p><u>POWER INSTALLATION</u> Switches and socket outlets to be 'ORANGE' or approved equivalent</p> <p><u>Final sub circuit point wiring</u> The minimum size of the 13A, 15A plug points to be used for point wiring shall be in 2x1Cx2.5mm2 Cu/PVC/PVC cable and 2.5mm2 protective earth in cable trucking/ conduit as per specification. Final sub-circuits including all necessary cables and wires, terminations, conduits, fixings and the like from the relevant distribution board to the power outlet including socket outlets.</p>	P.S Note Note	Allow	Sum	50,000.00
5.6.3	Supply and installation of 40A handle type changeover switch with powder coated casing as per the specification to working order	Nos	1.00		
5.6.4	Supply, laying and installation wall mounted 13 Amp switched socket outlet complete with final termination and all necessary accessories as per specification and drawings. (Rate shall include with the fitting)	Nos	9.00		
5.6.5	Supply, laying and installation wall mounted 15 Amp switched socket outlet complete with final termination and all necessary accessories as per specification and drawings. (Rate shall include with the fitting)	Nos	10.00		

**5.Bill of Quantities for
Construction of Broiler Chicken unit of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
	<p><u>LIGHTING INSTALLATION</u></p> <p><u>Final sub circuit point wiring</u> Final sub circuit point wiring Switches and socket outlets to be 'ORANGE' or approved equivalent Final sub-circuits including all necessary cables and wires, terminations, conduits, trunking, tray, fixings and the like from the relevant distribution board to the light fitting including switches; all in accordance with drawings and specifications</p> <p><u>Light fittings & fans</u> All lamp fittings shall be Phillips, Thorn or equivalent make. Preference will be given to reputed European/USA manufactured items. Each fitting shall include bulbs, internal wiring, hanging and fixing material and be complete to working order</p>				
5.6.6	Supply and Installation of Ceiling fan 1400mm Sweep (KDK,National,Mitsubishi,Hittachi) with wiring	Nos	1.00		
5.6.7	Supply and Installation of CFL Pendent Lamp 60 W with reflector, Orange or equivalent including wiring & switch to working order	Nos	56.00		
5.6.8	Supply and install approved type of Exhaust or blower fan 600mm dia. (K.D.K. or Equivalent) to broiler pens and research facility	Nos	2.00		
5.6.9	<p><u>Earthling system</u> Allow for suitably designed earthling system complete with all necessary materials including wires, and hardware to achieve the required earth impedance including earth pit and cover fixed complete and shall comply with BS specifications and latest IEE wiring regulations</p>	Item	1.00		
	Total electrical installation carried to Summary				

**5.Bill of Quantities for
Construction of Broiler Chicken unit of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
5.7	<u>FLOOR , WALL FINISHES</u>				
	<u>Floor finishes</u>				
5.7.1	Ground Floor Cement rendering on 12mm thick in cement and sand 1:2 in exposed concrete surfaces of floors (Inside cloak room, demonstration room) finished smooth with neat cement slurry/flooding.	m ²	19.00		
	<u>Wall finishes</u>				
	<u>16mm thk. Plaster in cement sand 1:3 mix motar finished semi rough with trowel on external masonry walls . Reveals not measured separately</u>				
5.7.2	External & Internal Surface of walls	m ²	200.00		
	Total floor , wall works carried to Summary				
5.8	<u>PAINTING</u>				
	Painting walls with one coat of wall primer and two coats of weather sheild in changing room and demonstration room.				
5.8.1	In Plastered internal walls	m ²	80.00		
5.8.2	In plastered external walls	m ²	80.00		
	Total painting works carried to Summary				

**5.Bill of Quantities for
Construction of Broiler Chicken unit of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
5.9	<u>STEEL & ROOFING WORKS</u> <u>Structural steel works</u> Supply, fabricate and installation of structural steel works. ; all in accordance with drawings and specifications. Rate shall include for applying of two coats of Zinc rich anticorrosive paint.				
5.9.1	<u>Supply , fabricate and erect main roof frame including monitor roof to detail in 150 x 75 x 14 Kg/m structural "I" Section with 12mm base plate (200x200) and 4 nos 16mm (gr 8.8) Galvanized anchor bolts per connection, 8mm MS cleats (150x150) at 1200mm c/c for purlins to the drawing</u> <u>Purlin</u> supply and fix Galvanize iron (GI) roof purling, in accordance with drawings and specifications to complete order.	Nos	5.00		
5.9.2	Supplying and fixing 'C' purlin 150x65x20mm - 2mm thick. <u>Roof covering</u>	m	440.00		
5.9.3	Supplying and fixing 0.47mm thick Zinc Aluminium and Colour coated roofing sheets on steel framework. (Steel frame work and ridge covering measured separately)	m ²	360.00		
5.9.4	Supplying and fixing Zinc Aluminium and Colour coated Ridge caps. <u>Roof insulation</u>	m	28.00		
5.9.5	Supply and lay double sided 8mm thick aluminium foil heat reflecting material to underside of roof supported with Gauge 10, 3" x 3" GI mesh. <u>Valance Board</u>	m ²	340.00		
5.9.6	Supplying and fixing 0.47mm thick Zn/Al and Colour coated 300mm width sheet for barge, valance, fascia fixed to roof frame including box bar with necessary screws.	m	110.00		
	Total steel & Roofing works carried to Summary				

**5.Bill of Quantities for
Construction of Broiler Chicken unit of AgroTech Park at Malwaththa, SEUSL.**

Item No	Description	Unit	Qty	Rate	Amount
5.10	<u>WATER SUPPLY, SANITORY & DRAINAGE</u>				
5.10.1	Supply and fix 500x500mm stainless steel lab sink with single bowl & single drain by mascons or approved equivelant with 5 year written warranty from the athorized agent. including PVC bottle trap and water connection with flexible hose, all complete to working order. Rate shall include for swan neck tap (Water Tec or equivelant).)	Nr	2.00		
5.10.2	Allow for Supplying laying and/or fixing (20mm) 3/4" dia. P.V.C. water supply pipe line to lab sinks (Type 1000 in cluding Specials) to compelte order as directed.	P.S	Allow	Sum	10,000.00
5.10.3	Allow for Supplying laying and/or fixing 40mm dia. P.V.C. water supply pipe line to all broiler pens (Type 1000 including Specials and approved angle valve at each pen) to compelte order as directed.	P.S	Allow	Sum	25,000.00
5.10.4	Allow for Supplying and fixing 50mm dia. P.V.C waste pipe to lab sinks (type 600, including Specials)	P.S	Allow	Sum	10,000.00
5.10.5	Allow for Supplying and fixing 110mm dia. P.V.C waste pipe to broiler pens floors, up to drain (Type 1000)	m	24.00		
5.10.6	Construction of waste waterdrainage - Construction of concrete drain 300mm width x 350mm depth and varies up to 400mm. Consists of necessary excavation in hard earth, 75mm thick concrete base and walls in Grade 20 concrete, fair finish internal surface without cover slab. Drain reinforced with tor steel 10mm at 150m c/c both ways.	m	30.00		
5.10.7	Construction of 1200mm x 1200 mm , 1500mm deep soakage pit in hard soil. Walls and floor 225 mm brick work in 1:5 cement sand mortar with sufficient openings for soaking action. No plaster to walls or floor. Cover slab 1650x1650x125mm thick Grade 25 concrete, T10@ 150 B/W bottom net	Nr	1.00		
	Total metal works carried to Summary				

**6.BILL OF QUANTITIES FOR
CONSTRUCTION OF LAYER CHICKEN UNIT OF AGROTECH PARK AT MALWATHTHA,
SEUSL.**

SUMMARY

Item No	Description	Amount
6.1	EXCAVATION & EARTH WORK	
6.2	CONCRETE WORK	
6.3	MASONRY WORKS	
6.4	DAMP PROOFING WORKS	
6.5	METAL WORKS	
6.6	ELECTRICAL INSTALLATION	
6.7	FLOOR & WALL FINISHES	
6.8	PAINTING	
6.9	STEEL & ROOFING WORKS	
6.10	WATER SUPPLY, SANITARY & DRAINAGE	
	SUB TOTAL	

6.Bill of Quantities for

Construction of Layer Chicken Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
6.1	<u>EXCAVATION & EARTH WORK</u>				
	<u>Site Clearing (clearing area shall extend 3m around the proposed building plot perimeter)</u>				
6.1.1	Removal of top soil to a depth of 150mm and including disposal within 500m in side the site	m ²	500.00		
	<u>Excavation</u>				
	Excavation for foundations in any material (except rock requiring blasting) up to 5'-0" (1500mm) depth, part return fill in and ram and surplus deposited within site as directed.				
6.1.2	For column foundation	m ³	19.00		
6.1.3	For RRM wall	m ³	20.00		
	<u>Filling</u>				
	Approved selected gravel /hard Earth spreading , leveling watering and compaction, filling in (6") 150 mm thick layers in respected area				
6.1.4	Imported selected gravel / hard core filling for land preparation and under floor, watering, well rammed and consolidated in 75mm layers as directed.	m ³	358.00		
	Total Excavation and Earth works carried to Summary				
6.2	<u>CONCRETE WORK</u>				
	The Quality of the concrete should confirm to the relevant B.S., S.L.S. and ICTAD specification for Building works.				
	<u>In situ Concrete</u>				
	<u>Mass concrete 1:3:6 (25mm) screed poured in to ground : all in accordance with drawings</u>				
6.2.1	50 mm thick under column foundation	m ³	1.20		
6.2.2	50 mm thick under random rubble foundation	m ³	2.00		
	<u>Grade 25 (1: 1 1/2: 3) (19mm) reinforced con. Poured into formwork ; all in accordance with drawings using mixer and vibrator</u>				
6.2.3	In column footings	m ³	4.50		
6.2.4	In Floor level Tie Beam	m ³	11.70		
6.2.5	In Sill Beams	m ³	4.00		

Construction of Layer Chicken Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
6.2.6	In Column Shaft	m3	5.20		
6.2.7	In Roof level Tie Beam	m3	5.30		
6.2.8	In Vanity slab in research unit	m3	4.50		
	<u>Grade 25 (1: 1 1/2: 3) (19mm) in ground floor concrete pored on to DPM placed on leveled ground</u>				
6.2.9	Grade 25 concrete (75 mm thick) on ground floor finished smooth with trowelling manually. including for grooving as per drawing <u>Form work</u>	m3	38.00		
	<u>Class-II timber formwork : all in accordance with drawings and specifications. formwork for footing , column , beams , lintel, walls, slabs</u>				
6.2.10	To sides of column foundation	m2	26.00		
6.2.11	To sides of Column Shaft	m2	91.40		
6.2.12	To sides of ground level Tie Beams	m2	101.00		
6.2.13	To sides of Sill/ Capping Beams	m2	30.00		
6.2.14	To Vanity in research unit	m2	42.00		
6.2.15	To Roof Tie Beams	m2	66.00		
	<u>Reinforcements</u>				
6.2.16	Furnish, fabricate, place and tie Tor steel 460N/mm2 including binding wire, cover and spacer blocks complete to complete order	Ton	1.30		
6.2.17	Furnish, fabricate, place and tie mild steel reinforcing round bars 250N/mm2 including binding wire, cover and spacer blocks to complete order <u>Expansion Joint</u>	Ton	0.30		
6.2.18	Polystyrene expansion joint , 75mm depth , 5-8 mm width, for concrete floor including flexible filling material as per detail drawings	m	260.00		
	Total concrete works carried to Summary				
6.3	<u>MASONRY WORK</u>				
	<u>Rubble work</u>				
	<u>Random rubble work in cement sand and motar 1:5 all in accordance with drawings and specification</u>				
6.3.1	In RRM foundations/ RRM Walls	m ³	20.00		
	<u>Brick work</u>				
	<u>225mm thick Brick wall in 1:5 cement mortar in ground floor.</u>				
6.3.2	In walls at ground floor.	m ³	45.00		
	Total Masonry works carried to Summary				

Construction of Layer Chicken Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
6.4	<u>DAMP PROOFING/ WATER PROOFING WORK</u>				
6.6.1	Damp proof membrane under floor concrete , 1000 gauge polythene	m ²	395.00		
	Total DAMP PROOFING & WATER PROOFING works carried to Summary				
6.5	<u>METAL WORKS</u>				
	<u>Doors, Windows & Grill Works</u>				
	Aluminium doors, windows and partitions shall confirm to the following requirements: Aluminium alloy should confirm to- BS 1474:1972 Surface treatment shall confirm to BS 1615 and BS 3987 Anodized coating thickness should be 15 +/- 5 microns Minimum section thickness 1.6mm door frame , 1.5 mm window frame All screws should be stainless steel. But hinges and bar type hinges should be Aluminium or Stainless Steel. Aluminium extrusions shall be of M/S ALUMAX (PVT) LTD and by M/S LANKA ALUMINIUM INDUSTRIES LTD and M/S HEMALCO LTD. Or equivalent.				
6.5.1	Openable Single Sash Door, Type D1, Size 1200x2100 mm. (Aluminium Composite Panel & Glazed) with Fixed Glass on Top. Natural aluminium single sash butt hinged openable door with middle rail and fixed glass on top , panelling with two layers of 4mm thick aluminium composite panel on both side and glazed with 5mm thick tinted glass panes, neoprene and wood beading, gaskets, pop rivots, threaded bar with nut and approved quality cylindrical door lock of Union Brand or approved equivalent lock, butt hinges, door handle with cap nut.	Nr	2.00		
6.5.2	Steel Framed Grilled Door, Type D2, Size 1200x2100 mm. Door frame 100x50x3mm steel box frame. Galvanized steel wire mesh (poultry netting) square pattern, 50mm x 50mm (gauge 10). mesh welded to steel door sash frame of 50x50x3mm angle iron as per drawing. Including 150 mm bolt lock at middle, Hasp and plate. complete with 3No. 100mm M-S Butt Hinges . Rate shall include for applying two coats of Zinc rich anti- Corrosive spray paint.	Nr	10.00		

Construction of Layer Chicken Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
6.5.3	Casement Window with Louvers on Top (2 Bays) , Type W1, Size 1200x1200 mm. Natural aluminium casement window double sash with louvers on top, consisting of 5mm thick glass panes, casement lock, screws, pop rivots, gaskets, door hinge, weather strip etc	Nr	2.00		
6.5.4	INTERNAL GRILLS - Fabricate & Fixing of Steel frame, frame panel size max 1650mm x 1200mm, vertical & horizontal members 35mm x 35mm x 3mm single angle iron, fixed within RCC columns/ beams or steel box frame as per drawing to receive GI mesh. Rate shall include for fixing with No.10, 50mm counter sunk iron screws and Galvanized steel wire mesh square pattern, 50x50mm(guage10) welded to steel frame. Welded area shall be treated with two coats of Zinc rich anti- Corrosive paint. In External walls of the building and Monitor roof.	m2	335.00		
6.5.5	PERIMETER GRILLS - Fabricate & Fixing of Steel frame, frame panel size max 1650mm x 1200mm, vertical & horizontal members 35mm x 35mm x 3mm single angle iron, fixed within RCC columns/ beams or steel box frame as per drawing to receive GI mesh. Rate shall include for fixing with No.10, 50mm counter sunk iron screws and Galvanized steel wire mesh square pattern, 50x50mm (guage10) combined with hot dipped galvanized 19x19mm-(1.8kg/m2) hardware cloth (small mesh size net) both mesh welded to steel frame. Welded area shall be treated with two coats of Zinc rich anti- Corrosive paint. In External walls of the building and Monitor roof.	m2	215.00		
6.5.6	Supply and fabricate 50x100x3mm GI box section frame (beams) to support grill work	m	87.00		
6.5.7	Supply and fabricate 100x100x3mm GI box section frame (columns) to support grill work. Item 6, 7 - Welded area shall be treated with Zinc rich anti- Corrosive paint	m	44.00		
	Total metal works carried to Summary				

Construction of Layer Chicken Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
6.6	<p><u>ELECTRICAL INSTALLATION</u> All Electrical works carried out shall comply with the latest local authority standard code of practice IET wiring regulations 17th edition (BS 7671 : 2008 incorporating amendment number 3 : 2015)</p> <p>All electrical lines shall be roof suspended and conduite encased.</p> <p><u>Cables</u></p>	Note			
6.6.1	<p>Cables and conduits , trunking, tray with necessary fixing between main boards, sub-boards and final boards including terminations; all in accordance with drawings and specification.</p> <p>4x1CX 6 mm² CU/PVC/SWA/PVC cable from CEB meter to MDB</p> <p><u>Distribution Boards.</u> <u>Distribution Boards with surface type enclosure and accessories as per drawing</u></p>	m	50.00		
6.6.2	<p>Main Distribution Board consisting of, ELCB, MCBs, main switch, etc. all complete to working order in suitable enclosure to Engineers approval.</p> <p><u>POWER INSTALLATION</u> Switches and socket outlets to be 'ORANGE' or approved equivalent <u>Final sub circuit point wiring</u> The minimum size of the 13A, 15A plug points to be used for point wiring shall be in 2x1Cx2.5mm² Cu/PVC/PVC cable and 2.5mm² protective earth in cable trucking/ conduit as per specification.</p> <p>Final sub-circuits including all necessary cables and wires, terminations, conduits, fixings and the like from the relevant distribution board to the power outlet including socket outlets.</p>	P.S	Allow	Sum	50,000.00
6.6.3	<p>Supply and installation of 40A handle type changeover switch with powder coated casing as per the specification to working order</p>	Nos	1.00		
6.6.4	<p>Supply, laying and installation wall mounted 13 Amp switched socket outlet complete with final termination and all necessary accessories as per specification and drawings. (Rate shall include with the fitting)</p>	Nos	9.00		

Construction of Layer Chicken Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
6.6.5	Supply, laying and installation wall mounted 15 Amp switched socket outlet complete with final termination and all necessary accessories as per specification and drawings. (Rate shall include with the fitting) <u>LIGHTING INSTALLATION</u> <u>Final sub circuit point wiring</u> Final sub circuit point wiring Switches and socket outlets to be 'ORANGE' or approved equivalent Final sub-circuits including all necessary cables and wires, terminations, conduits, trunking, tray, fixings and the like from the relevant distribution board to the light fitting including switches; all in accordance with drawings and specifications <u>Light fittings & fans</u> All lamp fittings shall be Phillips, Thorn or equivalent make. Preference will be given to reputed European/USA manufactured items. Each fitting shall include bulbs, internal wiring, hanging and fixing material and be complete to working order	Nos	10.00		
6.6.6	Supply and Installation of Ceiling fan 1400mm Sweep (KDK,National,Mitsubishi,Hittachi) with wiring	Nos	1.00		
6.6.7	Supply and Installation of CFL Pendant Lamp 60 W with reflector, Orange or equivalent with wiring	Nos	50.00		
6.6.8	Supply and install approved type of Exhaust or blower fan 600mm dia. (K.D.K. or Equivalent) to broiler pens and research facility	Nos	10.00		
6.6.9	<u>Earthing system</u> Allow for suitably designed earthing system complete with all necessary materials including wires, and hardware to achieve the required earth impedance including earth pit and cover fixed complete and shall comply with BS specifications and latest IEE wiring regulations	Item	1.00		
	Total electrical installation carried to Summary				
6.7	<u>FLOOR, WALL FINISHES</u>				
6.7.1	<u>Floor finishes</u> Ground Floor Cement rendering on 12mm thick in cement and sand 1:2 in exposed concrete surfaces of floors (Inside cloak room, demonstration room) finished smooth with neat cement slurry.	m2	56.00		

Construction of Layer Chicken Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
	Wall finishes				
6.7.2	16mm thk. Plaster in cement sand 1:3 mix motar finished semi rough with trowel on external masonry walls . Reveals not measured separately External & Internal Surface of walls	m ²	400.00		
	Total floor , wall works carried to Summary				
6.8	<u>PAINTING</u> Painting walls with one coat of wall primer and two coats of weather sheild in changing room and demonstration room				
6.8.1	In Plastered internal walls	m ²	213.00		
6.8.2	In plastered external walls	m ²	120.00		
	Total painting works carried to Summary				
6.9	<u>STEEL & ROOFING WORKS</u> <u>Structural steel works</u> Supply, fabricate and installation of structural steel works. ; all in accordance with drawings and specifications. Rate shall include for applying of two coats of Zinc rich anticorrosive paint.				
6.9.1	Supply , fabricate and erect main roof frame including monitor roof in 150 x 75 x 14 Kg/m structural "I" Section with 12mm base plate (200x200) and 4 nos 16mm (gr 8.8) Galvenized anchor bolts per connection, 8mm MS cleats (150x150) at 1200mm c/c for purlins to the drawing <u>Purlin</u> supply and fix Galvanize iron (GI) roof purling, all in accordance with drawings and specifications to complete order.	Nos	5.00		
6.9.2	Supplying and fixing 'C' purlin 150x65x20mm - 2mm thick.	m	585.00		
6.9.3	<u>Roof covering</u> Supplying and fixing 0.47mm thick Zinc Aluminium and Colour coated roofing sheets on steel framework. (Steel frame work and ridge covering measured separately)	m ²	567.00		
6.9.4	Supplying and fixing Zinc Aluminium and Colour coated Ridge caps.	m	28.00		
6.9.5	<u>Roof insulation</u> Supply and lay double sided 8mm thick aluminium foil heat reflecting material to underside of roof supported with Gauge 10, 3" x 3" GI mesh.	m ²	420.00		

Construction of Layer Chicken Unit of AgroTech Park at Malwaththa, SEUSL.

Item No	Description	Unit	Qty	Rate	Amount
6.9.6	Valance Board Supplying and fixing 0.47mm thick Zn/Al and Colour coated 300mm width sheet for barge, valance, fascia fixed to roof frame including box bar with necessary screws.	m	110.00		
	Total steel & Roofing works carried to Summary				
6.10	<u>WATER SUPPLY, SANITARY & DRAINAGE</u>				
6.10.1	Supply and fix 500x500mm stainless steel lab sink with single bowl & single drain by mascons or approved equivalent with 5 year written warranty from the authorized agent. including PVC bottle trap and water connection with flexible hose, all complete to working order. Rate shall include for swan neck tap (Water Tec or equivalent.)	Nr	3.00		
6.10.2	Allow for Supplying laying and/or fixing (20mm) 3/4" dia. P.V.C. water supply pipe line to lab sinks (Type 1000 including Specials) to complete order as directed.	P.S	Allow	Sum	10,000.00
6.10.3	Allow for Supplying laying and/or fixing 40mm dia. P.V.C. water supply pipe line to all broiler pens (Type 1000 including Specials and approved angle valve at each pen) to complete order as directed.	P.S	Allow	Sum	25,000.00
6.10.4	Allow for Supplying and fixing 50mm dia. P.V.C waste pipe to lab sinks (type 600, including Specials)	P.S	Allow	Sum	10,000.00
6.10.5	Allow for Supplying and fixing 110mm dia. P.V.C waste pipe to broiler pens floors, up to drain (Type 1000)	m	24.00		
6.10.6	Construction of waste water drainage - Construction of concrete drain 300mm width x 350mm depth and varies up to 400mm. Consists of necessary excavation in hard earth, 75mm thick concrete base and walls in Grade 20 concrete, fair finish internal surface without cover slab. Drain reinforced with tor steel 10mm at 150m c/c both ways.	m	30.00		
6.10.7	Construction of 1200mm x 1200 mm , 1500mm deep soakage pit in hard soil. Walls and floor 225 mm brick work in 1:5 cement sand mortar with sufficient openings for soaking action. No plaster to walls or floor. Cover slab 1650x1650x125mm thick Grade 25 concrete, T10@ 150 B/W bottom net	Nr	1.00		
	Total metal works carried to Summary				

7. BILL OF QUANTITIES FOR

**FIXING ELECTRIC FENCE TO EXISTING BOUNDARY WALL FOR THE CONTROL OF
WILD ELEPHANTS OF AGROTECH PARK PREMISES AT MALWATTA, SEUSL**

SUMMARY		
I.No	Description	Amount / Rs.
7.0	Electric Fence	
Sub Total		

7. Bill of Quantities for

Fixing Electric Fence to Existing Boundry Wall for the Control of Wild Elephants of AgroTech Park Premises at Malwatta, SEUSL

I.No	Description	Unit	Qty.	Rate	Amount
	7.0 Electric Fence				
	Total Length of the Fence approximatly 10m				
	Note:				
7.01	Clearing and leveling Site with fence path before and after Elephant fence fixing as directed.	L.S	Allow	Sum	
7.02	Breaking and removing existing wire in sales centre area and stacked at site	L.S	Allow	Sum	
7.03	Excavation in foundation for wall and column pits in hard/ dense soil a part return filling, ram and surplus disposed as directed.	Cu.m	0.50		
7.04	1:2:4 (20 mm) cement sand mix concrete for post.	Cu.m	0.50		
7.05	Supplying and fixing of Timber post and fixing "L" iron with put hole, Earth copper plate etc directed. +The Electric Fence will be attached to Timber Posts. +The installation of posts is included this rate. Typically the distance between post will vary post length, girth will be 350 - 400mm for fence post. +The electric fence will be installed in front of the existing wall at typical distance of 1 to 2m.	Nos.	2.00		
7.06	Supplying and fixing of removable gate spring type wire in entrance area	P.S	Allow	Sum	50,000.00
7.07	Supplying and fixing of Warning boards such as Danger etc..	P.S	Allow	Sum	15,000.00
	Sub total carried to summary:				

**8A.BILL OF QUANTITIES FOR
BUILDING (LAB, FARM MANAGER OFFICE & CANTEEN ETC...) OF AGROTECH
PARK AT MALWATHTHA, SEUSL.**

SUMMARY		
I.No	Description	Amount / Rs.
8A	Renovation of Building for Lab Facilities	
8B	Construction of Farm Manager's Office	
Sub Total		

**8A.BILL OF QUANTITIES FOR
RENOVATION OF BUILDING FOR LAB FACILITIES OF AGROTECH PARK AT
MALWATHTHA, SEUSL.**

SUMMARY		
I.No	Description	Amount / Rs.
8A.1	Demolisher/ Removing work	
8A.2	Excavator	
8A.3	Concreter	
8A.4	Form Work	
8A.5	Iron Monger	
8A.6	Brick Layer	
8A.7	R/R Masonary	
8A.8	Roof work	
8A.9	Plasterer	
8A.10	Pavior	
8A.11	Painter and Decorator	
8A.12	Aluminium work	
8A.13	Water Supply and Drainage	
8A.14	Electrical work	
Sub Total		

8.Bill of Quantities for

Renovation of Building for Lab Facilities of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
8A.1. Demolisher/ Removing work					
8A.1.01	Demolishing existing un-necessary wall & making opening for Aluminium door, window, finishing with cement mortar using machinery for above cutting work, brick stacked site and debris cleared away (Aluminium door paid separately)	Cu.m	23.00		
8A.1.02	Demolished existing floor and debris cleared away.	Sq.m	127.00		
8A.1.03	Demolishing existing tiles in wall and floor and debris cleared away	Sq.m	26.90		
8A.1.04	Chipping/ Removing existing plastering after demolishing un-necessary wall and debris cleared away	Sq.m	170.40		
8A.1.05	Removing existing damaged steel door or window framw from existing wall and stack at site. (size up to 3.70 sq.m per one)	No.	9.00		
Sub total carried to summary:					
8A.2. Excavator					
8A.2.01	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	120.60		
8A.2.02	Excavation for foundation of wall and column a part return filling, ram and surplus disposed as directed.	Cu.m	37.80		
8A.2.03	Anti termite treatment on excavated foundation and compacted soil under floors. The method of treatment and the chemicals to be used should be approved by the Engineer and minimum 10 year warranty certificate from a recognized organization should be provided.	Sq.m	222.30		
8A.2.04	Imported selected gravel / hard core filling under floor, watering well rammed and consolidated in 75mm layers as directed.	Cu.m	103.80		
Sub total carried to summary					
8A.3. Concreter					
8A.3.01	1:2:4 (20 mm)cement sand mix concrete in screed	Cu.m	2.90		
8A.3.02	1:2:4 (20 mm)cement sand mix concrete in footing	Cu.m	5.00		
8A.3.03	1:2:4 (20 mm) cement sand mix concrete in column shaft	Cu.m	4.90		
8A.3.04	1:2:4 (20 mm) concrete in Plinth Beam.	Cu.m	5.20		
8A.3.05	1:2:4 (20 mm) concrete in beam	Cu.m	9.60		

8.Bill of Quantities for

Renovation of Building for Lab Facilities of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
8A.3.06	100mm thick RCCslab in 1:2:4(20) ct.concrete and reinforcement with 10mm tor steel at 125mm centres both ways including shuttering in work top.	Sq.m	6.80		
8A.3.07	100mm thick RCCslab in 1:2:4(20) ct.concrete and reinforcement with 10mm tor steel at 125mm centres both ways including shuttering in Porch over 3.0m .	Sq.m	17.90		
8A.3.08	Lintol 112mm x 150mm, cement concrete1:2:4(20), Reinforcement with 2 No. 12mm tor steel including form work	L.m	24.70		
8A.3.09	Lintol 225mm x 150mm, cement concrete1:2:4(20), Reinforcement with 2 No. 12mm tor steel including form work	L.m	85.20		
8A.3.10	1:2:4 (20 mm) cement concrete in floor.	Cu.m	19.10		
	Sub total carried to summary				
	8A.4. Form Work				
8A.4.01	Form work in footing.	Sq.m	24.00		
8A.4.02	Form work in column shaft in Ground Floor..	Sq.m	83.10		
8A.4.03	Form work in plinth beam.	Sq.m	28.70		
8A.4.04	Form work in beam over 3.0m	Sq.m	126.40		
	Sub total carried to summary				
	8A.5. Iron Monger				
8A.5.01	Tor steel for footing.	Kg.	198.00		
8A.5.02	Tor steel for column shaft.	Kg.	353.00		
8A.5.03	Tor steel for plinth beam.	Kg.	345.00		
8A.5.04	Tor steel for beam in over 3.0m	Kg.	1006.00		
8A.5.05	Mild steel for column shaft and beams in Ground Floor.	Kg.	150.00		
8A.5.06	Mild steel for column shaft and beams in First Floor.	Kg.	382.00		
	Sub total carried to summary				
	8A.6. Brick Layer				
8A.6.01	225mm thick brick work in cement and sand 1:5 mix.	Cu.m	43.70		
8A.6.02	112mm thick brick work in cement and sand 1:5 mix.	Sq.m	39.30		
	Sub total carried to summary				
	8A.7. R/R Masonary				
8A.7.01	Random rubble masonry in cement and sand 1:5 mix upto D.P.C. Level.	Cu.m	32.70		
	Sub total carried to summary				

8.Bill of Quantities for

Renovation of Building for Lab Facilities of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
8A.8. Roof work					
8A.8.01	Supplying and fixing 0.47mm thick Zn/ Al and Colour coated roofing sheets with 75mm x 75mm sq. mesh and 8mm thick mat foil with double side Al. foil. Rate shall include for necessary Accessories and transport.(hip roof) (Brand, Profile and Colour of the sheets should be approved by the engineer).	Sq.m	307.00		
8A.8.02	Supplying and fixing galvanized "C" purlin 100mm x 50mm x 20mm - 2mm thick. Rate shall include for two coats of anti-corrosive paint to only at welded joints.	L.m	394.00		
8A.8.03	Supplying and fixing 0.47mm thick Zn/ Al ridge capping of girth 470mm to match the colour of the roof. Rate shall include all necessary fasteners, etc.	L.m	33.00		
8A.8.04	Supplying and fixing 0.47mm thick Zn/ Al and Colour coated 300mm width sheet for barge, valance, fascia fixed to roof frame including box bar with necessary screws.	L.m	77.00		
8A.8.05	Supplying and fixing of 150mm x 75mm x 6mm 'H' iron as truss including welding and anticrossive paint as directed. (Cleats and other paid separately)	L.m	113.00		
8A.8.06	Supplying, fabricing and fixing 10mm thick base plate with 4nos 20mm dia 9" long anchor bolt & nut on top of wall/ column, 12mm dia nut and bolt and necessary accessories including welding and two coats of anticorrosive paint as directed.	Nos	33.00		
8A.8.07	Supplying, fabricing and fixing of 65 x 65 x 6mm thick angle iron piece for cleats including two coats of anticorrosive paint as directed.	Nos	132.00		
8A.8.08	Supplying and Fixing Zinc Aluminium and Colour coated 0.47mm eaves gutters with brackets, specials and screws at 200mm intervals	L.m	67.00		
8A.8.09	Supplying and Fixing Zinc Aluminium and Colour coated 100x100mm down pipes with necessary brackets, specials and screws etc.	L.m	52.00		
Sub total carried to summary					
8A.9. Plasterer					
8A.9.01	16mm thick 1:3 cement sand plastering to external wall rough finished.	Sq.m	197.30		
8A.9.02	16mm thick 1:3 cement sand plastering to internal wall finished and smooth.	Sq.m	443.00		
8A.9.03	20mm thick 1:3 cement rendering to plinth with colour cement foloating.	Sq.m	108.80		
Sub total carried to summary:					

8.Bill of Quantities for

Renovation of Building for Lab Facilities of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
	8A.10. Pavior				
8A.10.01	20mm thick 1:3 cement sand mix rendering	Sq.m	97.40		
8A.10.02	Providing expansion joints mentioned particular intervals with regiform, after construction filled with bitumen sand mixed as directed by Engineer.	L m	19.00		
8A.10.03	Supplying and laying Ceramic pressed floor tiles to lab. Rate shall to include 12mm thick 1:2 cement mortar and tile on tile cement levelling screed to existing floor with tile grout to match the tiles.	Sq.m	76.50		
8A.10.04	Skirting Tile in cement mortar 1:3 12mm x150mm projected or flush with floor tites to wall. Rate to include beading.	L.m	49.20		
8A.10.05	Supplying and laying of pressed tiles paving to wash room floor and the joints pointed in neat cement coloured to match the tiles. approved colour set in cement and sand 1:3 mix bedding 12mm thick finished with pointed with tile grout to match the tiles.	Sq.m	17.30		
8A.10.06	Supplying and laying of glazed tiles coloured wall tiles with all special corner etc.applied and fixed to wall including raking plastering and bedding in cement motor 1:2 mix for Work top and wash room.	Sq.m	69.40		
	Sub total carried to summary:				
	8A.11. Painter and Decoror				
8A.11.01	Painting all walls with acrylic wall filler to external wall.	Sq.m	271.00		
8A.11.02	Painting walls with two coats of whether shield paint to all external faces.	Sq.m	186.40		
8A.11.03	Painting walls with two coats of emulsion paint to internal faces.	Sq.m	84.60		
8A.11.04	Painting all wall with two coats of emulsion paint with lime puttying smooth finish to internal including preparing surface.	Sq.m	355.70		
	Sub total carried to summary:				

8.Bill of Quantities for

Renovation of Building for Lab Facilities of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
	8A.12. Aluminium work <i>Sample should be submitted and approved by the Engineer prior to start the work.</i>	Note			
8A.12.01	Supplying and fixing 100mm Natural or Brownzed aluminium double sash butt hinged openable door without louvers with middle rail and top with 5mm thick tinted glass panes and Bottom with aluminium cladding sheet, neoprene and woold beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, flush bolts, butt hinges, door handle with cap nut including inbuilt door frame in Ground Floor.	Sq.m	7.60		
8A.12.02	Supplying and fixing 100mm Brownzed aluminium single sash butt hinged openable door without louvers with middle rail and top with 5mm thick tinted glass panes and Bottom with aluminium cladding sheet, neoprene and woold beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut and inbuilt outer door frame. All materials should match to the existing partition as directed.	Sq.m	8.90		
8A.12.03	Supplying and fixing 100mm Natural or Brownzed aluminium Toilet single sash butt hinged openable door with middle rail and fully aluminium cladding sheet, neoprene and woold beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut.	Sq.m	9.20		
8A.12.04	Supplying and fixing 41mm Natural aluminium casement window without louvers on top, consisting of 5mm thick tinted glass panes, casement lock, screws, pop rivots, gaskets,hinges, weather strip etc. as directed (2 sashes) in Ground Floor.	Sq.m	14.40		
8A.12.05	Supplying, fabricating and fixing of 70mm (1.3mm thick)natural Aluminium frame sliding window with 5mm thick clear glass including sliding lock, screws, rubber beadings, rawl plugs etc as directed.	Sq.m	9.00		
8A.12.06	Aluminium fan light F.L size in 450mm x 450mm with section bar frame including 4mm thick glass panes with necessary rubber beading.	Sq.m	0.70		
8A.12.07	Supplying and fixing Door closer (Natural type) to the door and all necessary accessories with fittings as directed	Nos	10.00		
8A.12.08	Supplying and pasting sand blasted paper to the glass section in above Aluminium partition as directed	Sq.m	22.50		

8.Bill of Quantities for

Renovation of Building for Lab Facilities of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
8A.12.09	Supplying and fixing of suspended ceiling with aluminium grid, superflex (600x1200mm) sheets and necessary materials as directed.	Sq.m	123.60		
8A.12.10	Flat superflex eaves ceiling fixed to 100mmx50mm joists and 50mm bearers of special class upper timber including 40mmx12mm cover fillets and 63mmx25mm coves of Grandies timber.	Sq.m	128.00		
8A.12.11	Supplying and fixing of curtains to the windows with normal cloth curtain , bar and other all fittings & completed to Ground Floor as directed by Engineer. (sample should to be get approval)	Sq.m	11.00		
Sub total carried to summary					
8A.13. Water Supply and Drainage					
8A.13.01	Supplying and fixing of wash Basin, laboratory colour with pedestal, 1tap, waste plugs, new brackets and complete.	Nos	2.00		
8A.13.02	Supplying and fixing mirror (500x450mm) above wash basin to wall with choromium plated fittings and soap tray. All items fixed to wall with rawl plugs	Nos	2.00		
8A.13.03	Supplying and fixing 20mm dia. Bib tap with necessary fittings	Nos.	4.00		
8A.13.04	Supplying and fixing of shower rose with necessary fittings	Nos.	2.00		
8A.13.05	Supplying and laying 50mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	6.00		
8A.13.06	Supplying and laying 40mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	6.00		
8A.13.07	Supplying and laying 32mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	4.00		
8A.13.08	Supplying and laying 25mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	4.00		
8A.13.09	Supplying and laying 20mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	6.00		
8A.13.10	Supplying and fixing of 25mm dia. PVC ball valve with necessary fittings.	Nos	2.00		
8A.13.11	Supplying and fixing of 20mm dia. PVC ball valve with necessary fittings.	Nos	2.00		
8A.13.12	Gulley PVC 100mm supplied & fixed including gulley box.	Nos	3.00		

8.Bill of Quantities for

Renovation of Building for Lab Facilities of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
8A.13.13	Man hole size in 600mm x 600mm x up to 600mm depth internally built in 225mm thick brick work and 1:2:4(20mm) base including 1:2 cement sand mix plastering in exposed faces and make proper slope drainage with neat cement floating including 75mm thick 1:2:4(20mm) cover slab, reinforced in 6mm dia M/S at 75mm c/c both ways with lifting handle to working order as per plan and directed.	Nos.	2.00		
8A.13.14	Drains PVC 110mm laid on 1:3:6 (40) cement concrete 150mm thick upto 600mm depth of invert including excavation & cement concrete hunching.	L.m	3.00		
8A.13.15	Soakage pit to Waste water size in 1500mm dia inner and 1800mm deep built in 225mm thick brick wall, excavation, 100mm thick R.C.C cover slab R/F with 10 mm dia tor steel bars at 125mm centre both ways and 1:2:4(20mm) concrete. and completed as per drawing.	Nos.	1.00		
Sub total carried to summary					
8A.14. Electrical work					
8A.14.01	Supplying & fixing of 13A Switched Socket Out Let with PEN conductor 7/0.67 mm wiring. (Life time warranty for swtches)	Nos.	30.00		
8A.14.02	Supplying & Fixing of in-door LED Bulb Square/ round Shape 18W Surface mounted type with 1/1.13 wiring (2 years warranty) in Ground Floor.	Nos.	18.00		
8A.14.03	Supplying and fixing of ceiling fan approved quality of 56" sweep with regulator all specials. Rate shall include for necessary PEN conductor 1/1.13mm wiring etc. (KDK N series or bajaj equelant)	Nos.	6.00		
8A.14.04	Supplying and fixing of 24000 BTU three phase Air conditioner with wiring and copper condenser (using 7/0.67mm single core) * Three free services. * 1 year warranty for machine. * 5 years warranty for compressor.	Nos	1.00		
8A.14.05	Supplying and fixing of 18000 BTU three phase Air conditioner with wiring and copper condenser (using 7/0.67mm single core) * Three free services. * 1 year warranty for machine. * 5 years warranty for compressor.	Nos	1.00		
8A.14.06	Supplying & Fixing of Water tight lamp with wiring (1 years warranty).	Nos.	8.00		
8A.14.07	Supplying & Fixing of flourscent lamp 4'-0". with wiring (1 years warranty).	Nos.	6.00		

8.Bill of Quantities for

Renovation of Building for Lab Facilities of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
8A.14.08	Supplying & Fixing of flourscent lamp 2'-0". with wiring (1 years warranty).	Nos.	8.00		
8A.14.09	Supplying and fixing of powder coated metal enclosure 28 way with cover plate including following accessories and bus bar. * 2P-40A Isollator - 1 No, * 2P-40Amp RCCB - 1No, * 1P-10A MCB - 10 Nos, * 1P-6A MCB - 7 Nos.	No.	1.00		
8A.14.10	Supplying and fixing of powder coated metal enclosure 16 way with cover plate including following accessories and bus bar. * 4P-40A Isollator - 1 No, * 4P-40Amp RCCB - 1No, * 1P-20A MCB - 3 Nos,	No.	1.00		
8A.14.11	Supplying and fixing 7/1.04 Cu\PVC\PVC - (6.0 sq.mm) wire.	L.m	10.00		
8A.14.12	Supplying and fixing 7/1.35mm Cu\PVC\PVC - (10.0 sq.mm) wire.	L.m	10.00		
8A.14.13	Supplying and fixing 2" Dia, 6' long G.I. Pipe as earth electrode	Nos.	1.00		
	Sub total carried to summary				

**8B. BILL OF QUANTITIES FOR
CONSTRUCTION OF FARM MANAGER'S OFFICE OF AGROTECH PARK AT
MALWATHTHA, SEUSL.**

SUMMARY		
I.No	Description	Amount / Rs.
8B.1	Excavator	
8B.2	Concreter	
8B.3	Form Work	
8B.4	Iron Monger	
8B.5	Brick Layer	
8B.6	R/R Masonary	
8B.7	Roof work	
8B.8	Plasterer	
8B.9	Paviour	
8B.10	Painter and Decorator	
8B.11	Aluminium work and Curtain Work	
8B.12	Water Supply and Drainage	
8B.13	Electrical work	
Sub Total		

**8B. Bill of Quantities for
Construction of Farm Manager's Office of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
8B.1 Excavator					
8B.1.1	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	175.00		
8B.1.2	Excavation in foundation for wall and column pits in hard/ dense soil a part return filling, ram and surplus disposed as directed.	Cu.m	35.60		
8B.1.3	Anti termite treatment on excavated foundation and compacted soil under floors. The method of treatment and the chemicals to be used should be approved by the Engineer and minimum 10 year warranty certificate from a recognized organization should be provided.	Sq.m	150.00		
8B.1.4	Imported selected gravel / hard core filling under floor, watering well rammed and consolidated in 75mm layers as directed.	Cu.m	62.00		
	Sub total carried to summary				
8B.2 Concrete					
8B.2.1	1:2:4 (20 mm)cement sand mix concrete in Screed	Cu.m	4.00		
8B.2.2	1:2:4 (20 mm)cement sand mix concrete in footing	Cu.m	0.50		
8B.2.3	1:2:4 (20 mm) cement sand mix concrete in column shaft.	Cu.m	0.50		
8B.2.4	1:2:4 (20 mm) concrete in Plinth Beam.	Cu.m	6.00		
8B.2.5	1:2:4 (20 mm) concrete in beam.	Cu.m	4.40		
8B.2.6	Lintol 225mm x 150mm, cement concrete1:2:4(20), Reinforcement with 2 No. 12mm tor steel including form work in Ground Floor.	L.m	73.40		
8B.2.7	1:2:4 (20 mm) concrete in beam in Ground Floor.	Cu.m	2.60		
8B.2.8	1:2:4 (20 mm) cement concrete in floor.	Cu.m	6.10		
8B.2.9	100mm thick RCC work top to kitchen in 1:2:4(20) cement concrete and reinforced with 10mm tor steel at 125mm centres both ways including shuttering.	Sq.m	3.80		
	Sub total carried to summary				
8B.3. Form Work					
8B.3.1	Form work in footing.	Sq.m	2.60		
8B.3.2	Form work in column shaft.	Sq.m	9.50		
8B.3.3	Form work in plinth beam.	Sq.m	26.60		
8B.3.4	Form work in beam.	Sq.m	35.60		
	Sub total carried to summary				

**8B. Bill of Quantities for
Construction of Farm Manager's Office of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
8B.4. Iron Monger					
8B.4.1	Tor steel for footing.	Kg.	23.00		
8B.4.2	Tor steel for column shaft.	Kg.	40.00		
8B.4.3	Tor steel for plinth beam.	Kg.	160.00		
8B.4.4	Tor steel for beam.	Kg.	314.00		
8B.4.5	Mild steel for column shaft and beams.	Kg.	158.00		
Sub total carried to summary					
8B.5. Brick Layer					
8B.5.1	225mm thick brick work in cement and sand 1:5 mix in Ground Floor.	Cu.m	60.50		
8B.5.2	112mm thick brick work in cement and sand 1:5 mix.	Sq.m	11.80		
Sub total carried to summary					
8B.6. R/R Masonary					
8B.6.1	Random rubble masonry in cement and sand 1:5 mix upto D.P.C. Level.	Cu.m	47.40		
Sub total carried to summary					
8B.7. Roof work					
8B.7.1	Roof, Hipped with calicut pattern tiles on 150x50 ridge and hip plates, 150x75 purlin, 100x75 wall plates, 100x50 rafter at 550mm centres and 50x25 reeper at 300 centres in Grandis timber frame work including ridging and application of two coats wood preservative etc. - single storyed buildings.	Sq.m	190.00		
8B.7.2	Board, barge, valance, fascia 225 x 20mm thick in Ginisappu timber fixed complete with necessary screws including Painting with 1 coat of primer and 2 coats of enamel paint.	L.m	52.30		
8B.7.3	Supplying and Fixing Zinc Aluminium and Colour coated 0.47mm eaves gutters with brackets, specials and screws at 200mm intervals	L.m	52.30		
8B.7.4	Supplying and Fixing Zinc Aluminium and Colour coated 100x100mm down pipes with necessary brackets, specials and screws etc.	L.m	49.20		
Sub total carried to summary					
8B.8 Plasterer					
8B.8.1	16mm thick 1:3 cement sand plastering to external wall rough finished.	Sq.m	151.20		
8B.8.2	16mm thick 1:3 cement sand plastering to internal wall finished and smooth.	Sq.m	276.00		
8B.8.3	20mm thick 1:3 cement rendering to plinth with colour cement foloating.	Sq.m	50.40		
Sub total carried to summary:					

**8B. Bill of Quantities for
Construction of Farm Manager's Office of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	8B.9 Paviour				
8B.9.1	Supplying and laying of pressed tiles paving to floor and the joints pointed in neat cement coloured to match the tiles. approved colour set in cement and sand 1:3 mix bedding 12mm thick finished with pointed with tile grout to match the tiles.	Sq.m	99.50		
8B.9.2	Skirting Tile in cement mortar 1:3 12mm x150mm projected or flush with floor tites to wall. Rate to include beading.	L.m	103.10		
8B.9.3	Supplying and laying of pressed tiles paving to wash room floor and the joints pointed in neat cement coloured to match the tiles. approved colour set in cement and sand 1:3 mix bedding 12mm thick finished with pointed with tile grout to match the tiles.	Sq.m	10.00		
8B.9.4	Supplying and laying of glazed tiles coloured wall tiles with all special corner etc.applied and fixed to wall including raking plastering and bedding in cement motor 1:2 mix for wash room.	Sq.m	31.80		
	Sub total carried to summary:				
	8B.10 Painter and Decoror				
8B.10.1	Painting all walls with acrylic wall filler to external wall.	Sq.m	151.20		
8B.10.2	Painting all wall with two coats of emulsion paint to internal including preparing surface	Sq.m	276.00		
8B.10.3	Painting walls with two coats of whether shield paint to all external faces.	Sq.m	151.20		
8B.10.4	Lime puttying smooth finish including preparing surface.(internal faces)	Sq.m	276.00		
	Sub total carried to summary:				

**8B. Bill of Quantities for
Construction of Farm Manager's Office of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	8B.11. Aluminium work and Curtain Work <i>Sample should be submitted and approved by the Engineer prior to start the work.</i>	Note			
8B.11.1	Supplying and fixing 100mm Natural or Brownzed aluminium double sash butt hinged openable door with louvers with middle rail and top with 5mm thick tinted glass panes and Bottom with aluminium cladding sheet, neoprene and wooleed beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, flush bolts, butt hinges, door handle with cap nut including inbuilt door frame in Ground Floor.	Sq.m	3.10		
8B.11.2	Supplying and fixing 100mm Brownzed aluminium single sash butt hinged openable door without louvers with middle rail and top with 5mm thick tinted glass panes and Bottom with aluminium cladding sheet, neoprene and wooleed beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut and inbuilt outer door frame. All materials should match to the existing partition as directed.	Sq.m	12.60		
8B.11.3	Supplying and fixing 100mm Natural or Brownzed aluminium Toilet single sash butt hinged openable door with middle rail and fully aluminium cladding sheet, neoprene and wooleed beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut.	Sq.m	5.10		
8B.11.4	Supplying and fixing 41mm Natural aluminium casement window with louvers on top, consisting of 5mm thick tinted glass panes, casement lock, screws, pop rivots, gaskets,hinges, weather strip etc. as directed (2 sashes).	Sq.m	11.90		
8B.11.5	Aluminium fan light F.L size in 450mm x 450mm with section bar frame including 4mm thick glass panes with necessary rubber beading.	Sq.m	0.70		
8B.11.6	Supplying and fixing Door closer (Natural type) to the door and all necessary accessories with fittings as directed	Nos	10.00		
8B.11.7	Supplying and fixing of suspended ceiling with aluminium grid, superflex (600x1200mm) sheets and necessary materials as directed.	Sq.m	123.60		

8B. Bill of Quantities for

Construction of Farm Manager's Office of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
8B.11.8	Flat superflex eaves ceiling fixed to 100mmx50mm joists and 50mm bearers of special class upper timber including 40mmx12mm cover fillets and 63mmx25mm coves of Grandies timber.	Sq.m	43.80		
8B.11.9	Supplying and fixing of curtains to the windows with normal cloth curtain , bar and other all fittings & completed as directed by Engineer. (sample should to be get approval)	Sq.m	25.65		
	Sub total carried to summary				
8B.12 Water Supply and Drainage					
8B.12.1	Supplying and fixing of 20mm dia. PVC ball valve with necessary fittings.	Nos	3.00		
8B.12.2	Supplying and fixing of 25mm dia. PVC ball valve with necessary fittings.	Nos	2.00		
8B.12.3	Supplying and fixing of 32mm dia. PVC ball valve with necessary fittings.	Nos	2.00		
8B.12.4	Supplying and fixing of wash Basin, lavoratory colour with pedestal, 1tap, waste plugs, new brackets and complete.	Nos	2.00		
8B.12.5	Supplying and fixing of Water closet or commod pedestal type, with low level (ceramic) flushing cistern double plastic seat cover 20mm stop cock with conector hose trap bidet shower etc and complete.	Nos	2.00		
8B.12.6	Closet foot rest squatting type with trap supplied & fixed squatting pan & trap.	No.	1.00		
8B.12.7	Supplying and fixing mirror (500x450mm) above wash basin to wall with choromium plated fittings and soap tray. All items fixed to wall with rawl plugs	Nos	2.00		
8B.12.8	Supplying and fixing 20mm dia. Bib tap with necessary fittings	Nos.	4.00		
8B.12.9	Supplying and fixing of shower rose with necessary fittings	Nos.	2.00		
8B.12.10	Supplying and laying 20mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	12.00		
8B.12.11	Supplying and laying 25mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	6.00		
8B.12.12	Supplying and laying 32mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	6.00		
8B.12.13	Supplying and laying 40mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	3.00		
8B.12.14	Supplying and laying 63mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	9.00		
8B.12.15	Supplying and fixing 110mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	18.00		

**8B. Bill of Quantities for
Construction of Farm Manager's Office of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
8B.12.16	Drains PVC 110mm laid on 1:3:6 (40) cement concrete 150mm thick upto 600mm depth of invert including excavation & cement concrete hunching.	L.m	6.00		
8B.12.17	Gulley PVC 100mm supplied & fixed including gulley box.	Nos	2.00		
8B.12.18	Man hole size in 600mm x 600mm x up to 600mm depth internally built in 225mm thick brick work and 1:2:4(20mm) base including 1:2 cement sand mix plastering in exposed faces and make proper slope drainage with neat cement floating including 75mm thick 1:2:4(20mm) cover slab, reinforced in 6mm dia M/S at 75mm c/c both ways with lifting handle to working order as per plan and directed.	Nos.	3.00		
8B.12.19	Soakage pit for wash out size in 1500mm dia inner and 2400mm deep built in 225mm thick brick wall, excavation, 75mm thick R.C.C cover slab R/F with 10 mm dia tor steel bars at 125mm c/c, 6mm dia mild steel bars @ 200mm c/c and 1:2:4(20mm) concrete. and completed as per drawing.	Nos.	1.00		
8B.12.20	Soakage pit for wash out size in 1200mm dia inner and 2100mm deep built in 225mm thick brick wall, excavation, 75mm thick R.C.C cover slab R/F with 10 mm dia tor steel bars at 125mm c/c, 6mm dia mild steel bars @ 200mm c/c and 1:2:4(20mm) concrete. and completed as per drawing.	Nos.	1.00		
	Sub total carried to summary				

8B. Bill of Quantities for

Construction of Farm Manager's Office of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
	8B.13. Electrical work				
8B.13.1	Supplying & fixing of 13A Switched Socket Out Let with PEN conductor 7/0.67 mm wiring. (Life time warranty for swtches)	Nos.	20.00		
8B.13.2	Supplying & Fixing of in-door LED Bulb Square/round Shape 18W Surface mounted type with 1/1.13 wiring (2 years warranty)	Nos.	27.00		
8B.13.3	Supplying and fixing of ceiling fan approved quality of 56" sweep with regulator all specials. Rate shall include for necessary PEN conductor 1/1.13mm wiring etc. (KDK N series or bajaj equelant)	Nos.	7.00		
8B.13.4	Supplying and fixing of 12000 BTUAir conditioner with wiring and copper condenser (using 7/0.67mm single core) * Three free services. * 1 year warranty for machine. * 5 years warranty for compressor.	Nos	2.00		
8B.13.5	Supplying & Fixing of Water tight lamp with wiring (1 years warranty).	Nos.	7.00		
8B.13.6	Supplying & Fixing of flourscent lamp 4'-0". with wiring (1 years warranty).	Nos.	2.00		
8B.13.7	Supplying & Fixing of flourscent lamp 2'-0". with wiring (1 years warranty).	No.	1.00		
8B.13.8	Supplying and fixing of powder coated metal enclosure 28 way with cover plate including following accessories and bus bar. * 2P-40A Isollator - 1 No, * 2P-40Amp RCCB - 1No, *1P-20A MCB - 2Nos, * 1P-10A MCB - 10 Nos, * 1P-6A MCB - 4 Nos.	No.	1.00		
8B.13.9	Supplying and fixing of powder coated metal enclosure 16 way with cover plate including following accessories and bus bar. * 4P-40A Isollator - 1 No, * 4P-40Amp RCCB - 1No, * 1P-20A MCB - 3 Nos,	No.	1.00		
8B.13.10	Supplying and fixing 7/1.04 mm Cu\PVC\PVC - (6.0 sq.mm) wire.	L.m	10.00		
8B.13.11	Supplying and fixing 7/1.35 mm Cu\PVC\PVC - (10.0 sq.mm) wire.	L.m	10.00		
8B.13.12	Supplying and fixing 2" Dia, 6' long G.I. Pipe as earth electrode.	Nos.	1.00		
	Sub total carried to summary				

**9.BILL OF QUANTITIES FOR
CONSTRUCTION OF WASH ROOM FACILITY OF AGROTECH PARK AT
MALWATHTHA, SEUSL.**

SUMMARY		
I.No	Description	Amount / Rs.
9.1	Excavator	
9.2	Concreter	
9.3	Form Work	
9.4	Iron Monger	
9.5	Brick Layer	
9.6	R/R Masonary	
9.7	Roof work	
9.8	Plasterer	
9.9	Paviour	
9.10	Painter and Decorator	
9.11	Aluminium work	
9.12	Water Supply and Drainage	
9.13	Electrical work	
Sub Total		

9. Bill of Quantities for

Construction of Wash Room Facility of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
	9.1 Excavator				
9.1.01	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	205.00		
9.1.02	Excavation in foundation for wall and column pits in hard/ dense soil a part return filling, ram and surplus disposed as directed.	Cu.m	41.00		
9.1.03	Anti termite treatment on excavated foundation and compacted soil under floors. The method of treatment and the chemicals to be used should be approved by the Engineer and minimum 10 year warranty certificate from a recognized organization should be provided.	Sq.m	167.00		
9.1.04	Imported selected gravel / hard core filling under floor, watering well rammed and consolidated in 75mm layers as directed.	Cu.m	31.90		
	Sub total carried to summary				
	9.2. Concreter				
9.2.01	1:2:4 (20 mm) concrete to screed in foundation (Mass concrete). .	Cu.m	5.00		
9.2.02	1:2:4 (20 mm) concrete in Plinth Beam.	Cu.m	8.70		
9.2.03	Lintol 225mm x 150mm, cement concrete 1:2:4(20), Reinforcement with 2 No. 12mm tor steel including form work in Ground Floor.	L.m	95.70		
9.2.04	1:2:4 (20 mm) cement concrete in floor.	Cu.m	6.40		
9.2.05	75mm thick RCC flat roof in 1:2:4(20) cement concrete and reinforced with 10mm tor steel at 125mm centres and 6mm mild steel at 200mm centres including shuttering.	Sq.m	5.90		
	Sub total carried to summary				
	9.3. Form Work				
9.3.01	Form work in plinth beam.	Sq.m	41.50		
	Sub total carried to summary				
	9.4. Iron Monger				
9.4.01	Tor steel for plinth beam.	Kg.	232.00		
	Sub total carried to summary				

9. Bill of Quantities for

Construction of Wash Room Facility of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
9.5. Brick Layer					
9.5.01	225mm thick brick work in cement and sand 1:5 mix in Ground Floor.	Cu.m	72.30		
9.5.02	112mm thick brick work in cement and sand 1:5 mix.	Sq.m	32.50		
9.5.03	Drains, brick in cement 1:5, 225mm to 300mm average depth, 300mm wide, and cement rendered 12mm thick 1:2 complete with expansion joints as necessary, including necessary excavation and 750mm wide apron formed of brick masonry	L.m	70.50		
9.5.04	Steps, 342mm wide and 150mm to 225mm high brick work in cement mortar 1:5, rendered 12mm thick 1:2 cement and sand with necessary excavation..	L.m	22.10		
Sub total carried to summary					
9.6. R/R Masonary					
9.6.01	Random rubble masonry in cement and sand 1:5 mix upto D.P.C. Level.	Cu.m	51.50		
Sub total carried to summary					
9.7. Roof work					
9.7.01	Supplying and fixing 0.47mm thick Zn/ Al and Colour coated roofing sheets with 75mm x 75mm sq. mesh and 8mm thick mat foil with double side Al. foil. Rate shall include for necessary Accessories and transport.(Gable Roof) (Brand, Profile and Colour of the sheets should be approved by the engineer).	Sq.m	207.50		
9.7.02	Supplying and fixing galvanized "C" purlin 100mm x 50mm x 20mm - 2mm thick. Rate shall include for two coats of anti-corrosive paint to only at welded joints.	L.m	234.90		
9.7.03	Supplying and fixing 0.47mm thick Zn/ Al ridge capping of girth 470mm to match the colour of the roof. Rate shall include all necessary fasteners, etc.	L.m	19.60		
9.7.04	Supplying and fixing 0.47mm thick Zn/ Al and Colour coated 300mm width sheet for barge, valance, fascia fixed to roof frame including box bar with necessary screws.	L.m	81.60		
9.7.05	Supplying and Fixing Zinc Aluminium and Colour coated 0.47mm eaves gutters with brackets, specials and screws at 200mm intervals	L.m	39.20		
9.7.06	Supplying and Fixing Zinc Aluminium and Colour coated 100x100mm down pipes with necessary brackets, specials and screws etc.	L.m	55.30		
Sub total carried to summary					

9. Bill of Quantities for

Construction of Wash Room Facility of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
9.8. Plasterer					
9.8.01	16mm thick 1:3 cement sand plastering to external wall rough finished.	Sq.m	247.40		
9.8.02	16mm thick 1:3 cement sand plastering to internal wall finished and smooth.	Sq.m	298.50		
9.8.03	20mm thick 1:3 cement rendering to plinth with colour cement faloating.	Sq.m	46.30		
Sub total carried to summary:					
9.9. Paviour					
9.9.01	Supplying and laying of pressed tiles paving to wash room floor and the joints pointed in neat cement coloured to match the tiles. approved colour set in cement and sand 1:3 mix bedding 12mm thick finished with pointed with tile grout to match the tiles.	Sq.m	114.00		
9.9.02	Supplying and laying of glazed tiles coloured wall tiles with all special corner etc.applied and fixed to wall including raking plastering and bedding in cement motor 1:2 mix for wash room.	Sq.m	296.80		
Sub total carried to summary:					
9.10 Painter and Decoror					
9.10.01	Painting all walls with acrylic wall filler to external wall in Ground Floor..	Sq.m	247.40		
9.10.02	Painting all wall with two coats of emulsion paint to internal including preparing surface	Sq.m	298.50		
9.10.03	Painting walls with two coats of whether shield paint to all external faces in Ground Floor.	Sq.m	247.40		
9.10.04	Lime puttying smooth finish including preparing surface.(internal wall)	Sq.m	298.50		
Sub total carried to summary:					

9. Bill of Quantities for

Construction of Wash Room Facility of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
	9.11. Aluminium work				
	<i>Sample should be submitted and approved by the Engineer prior to start the work.</i>	Note			
9.11.01	Supplying and fixing 100mm Natural or Brownzed aluminium Toilet single sash butt hinged openable door with middle rail and fully aluminium cladding sheet, neoprene and woold beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut.	Sq.m	14.40		
9.11.02	Supplying and fixing 100mm Natural or Brownzed aluminium Toilet single sash butt hinged openable door with middle rail and fully aluminium cladding sheet, neoprene and woold beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut.	Sq.m	16.80		
9.11.03	Aluminium fan light F.L size in 450mm x 450mm with section bar frame including 4mm thick glass panes with necessary rubber beading.	Sq.m	7.70		
9.11.04	Supplying and fixing Door closer (Natural type) to the door and all necessary accessories with fittings as directed	Nos	4.00		
9.11.05	Flat superflex eaves ceiling fixed to 100mmx50mm joists and 50mm bearers of special class upper timber including 40mmx12mm cover fillets and 63mmx25mm coves of Grandies timber.	Sq.m	75.00		
	Sub total carried to summary				
	9.12. Water Supply and Drainage				
9.12.01	Supplying and fixing of 20mm dia. PVC ball valve with necessary fittings.	Nos	23.00		
9.12.02	Supplying and fixing of 25mm dia. PVC ball valve with necessary fittings.	Nos	2.00		
9.12.03	Supplying and fixing of 32mm dia. PVC ball valve with necessary fittings.	Nos	4.00		
9.12.04	Supplying and fixing of 40 mm dia. PVC ball valve with necessary fittings.	Nos	7.00		
9.12.05	Supplying and fixing of wash Basin, lavoratary colour with pedestal, 1tap, waste plugs, new brackets and complete.	Nos	6.00		
9.12.06	Supplying and fixing of Water closet or commod pedestal type, with low level (ceramic) flushing cistern double plastic seat cover 20mm stop cock with conector hose trap bidet shower etc and complete.	Nos	2.00		
9.12.07	Closet foot rest squatting type with trap supplied & fixed squatting pan & trap.	Nos	8.00		

9. Bill of Quantities for

Construction of Wash Room Facility of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
9.12.08	Supplying and fixing mirror (500x450mm) above wash basin to wall with choromium plated fittings and soap tray. All items fixed to wall with rawl plugs	Nos	6.00		
9.12.09	Supplying and fixing 20mm dia. Bib tap with necessary fittings	Nos.	31.00		
9.12.10	Supplying and fixing of shower rose with necessary fittings	Nos.	23.00		
9.12.11	Supplying and laying 20mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	52.00		
9.12.12	Supplying and laying 25mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	22.00		
9.12.13	Supplying and laying 32mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	11.00		
9.12.14	Supplying and laying 40mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	34.00		
9.12.15	Supplying and laying 63mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	44.00		
9.12.16	Supplying and fixing 110mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	19.00		
9.12.17	Drains PVC 110mm laid on 1:3:6 (40) cement concrete 150mm thick upto 600mm depth of invert including excavation & cement concrete hunching.	L.m	6.00		
9.12.18	Gulley PVC 100mm supplied & fixed including gulley box.	Nos	4.00		
9.12.19	Man hole size in 600mm x 600mm x up to 600mm depth internally built in 225mm thick brick work and 1:2:4(20mm) base including 1:2 cement sand mix plastering in exposed faces and make proper slope drainage with neat cement floating including 75mm thick 1:2:4(20mm) cover slab, reinforced in 6mm dia M/S at 75mm c/c both ways with lifting handle to working order as per plan and directed.	Nos.	8.00		
9.12.20	Soakage pit size in 2400mm dia inner and 2400mm deep built in 225mm thick brick wall, excavation, 75mm thick R.C.C cover slab R/F with 10 mm dia tor steel bars at 125mm c/c, 6mm dia mild steel bars @ 200mm c/c and 1:2:4(20mm) concrete. and completed as per drawing.	Nos.	3.00		
9.12.21	Soakage pit size in 1500mm dia inner and 2400mm deep built in 225mm thick brick wall, excavation, 75mm thick R.C.C cover slab R/F with 10 mm dia tor steel bars at 125mm c/c, 6mm dia mild steel bars @ 200mm c/c and 1:2:4(20mm) concrete. and completed as per drawing.	Nos.	1.00		
	Sub total carried to summary				

9. Bill of Quantities for

Construction of Wash Room Facility of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
	9.13. Electrical work				
9.13.01	Supplying & Fixing of Water tight lamp with wiring (1 years warranty).	Nos.	16.00		
9.13.02	Supplying & Fixing of flourscent lamp 4'-0". with wiring (1 years warranty).	Nos.	24.00		
9.13.03	Supplying & Fixing of flourscent lamp 2'-0". with wiring (1 years warranty).	Nos.	14.00		
9.13.04	Supplying and fixing of powder coated metal enclosure 16 way with cover plate including following accessories and bus bar. * 2P-40A Isollator - 1 No, * 2P-40Amp RCCB - 1No, * 1P-6A MCB - 5 Nos.	No.	2.00		
9.13.05	Supplying and fixing 7/1.04 mm Cu\PVC\PVC - (6.0 sq.mm) wire.	L.m	20.00		
9.13.06	Supplying and fixing 2" Dia, 6' long G.I. Pipe as earth electrode.	Nos.	2.00		
	Sub total carried to summary				

**10.BILL OF QUANTITIES FOR
PROVIDING OF MACHINERY YARD WITH PARKING SHED OF AGROTECH PARK AT
MALWATHTHA, SEUSL.**

SUMMARY		
I.No	Description	Amount / Rs.
10.1	Excavator	
10.2	Concreteer	
10.3	Form Work	
10.4	Iron Monger	
10.5	R/R Masonary	
10.6	Wall and Roof work	
10.7	Plasterer	
10.8	Aluminium work	
10.9	Electrical work	
Sub Total		

10. Bill of Quantities for

Providing of Machinery Yard with Parking Shed of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
10.1 Excavator					
10.1.1	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	594.00		
10.1.2	Excavation in foundation for wall and column pits in hard/ dense soil a part return filling, ram and surplus disposed as directed.	Cu.m	104.20		
10.1.3	Anti termite treatment on excavated foundation and compacted soil under floors. The method of treatment and the chemicals to be used should be approved by the Engineer and minimum 10 year warranty certificate from a recognized organization should be provided.	Sq.m	525.20		
10.1.4	Imported selected gravel / hard core filling for land preparation and under floor, watering well rammed and consolidated in 75mm layers as directed.	Cu.m	209.40		
Sub total carried to summary					
10.2. Concreter					
10.2.1	1:2:4 (20 mm) cement sand mix concrete in screed	Cu.m	10.90		
10.2.2	1:2:4 (20 mm) cement sand mix concrete in footing	Cu.m	16.60		
10.2.3	1:2:4 (20 mm) cement sand mix concrete in column shaft.	Cu.m	5.10		
10.2.4	100mm thick 1:2:4 (20 mm) cement concrete in floor.	Cu.m	53.20		
10.2.5	1:2:4 (20 mm) concrete in Plinth Beam.	Cu.m	13.70		
Sub total carried to summary					
10.3. Form Work					
10.3.1	Form work in footing.	Sq.m	88.60		
10.3.2	Form work in column shaft..	Sq.m	45.90		
10.3.3	Form work in plinth beam.	Sq.m	140.00		
Sub total carried to summary					
10.4. Iron Monger					
10.4.1	Tor steel for footing.	Kg.	1021.00		
10.4.2	Tor steel for column shaft.	Kg.	730.00		
10.4.3	Tor steel for plinth beam.	Kg.	1957.00		
10.4.4	Tor steel for floor.	Kg.	3216.00		
10.4.5	Mild steel for column shaft and plinth beam.	Kg.	1361.00		
Sub total carried to summary					

10. Bill of Quantities for

Providing of Machinery Yard with Parking Shed of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
	10.5. R/R Masonary				
10.5.1	Random rubble masonry in cement and sand 1:5 mix upto D.P.C. Level.	Cu.m	129.00		
	Sub total carried to summary				
	10.6. Wall and Roof work				
10.6.1	Supplying and fixing 0.47mm thick Zinc Aluminium and Colour coated roofing sheets with 75mm x 75mm sq. mesh and 8mm thick mat foil with double side Aluminium Foil. Rate to including for necessary Accessories.(Gable roof) (Brand, Profile and Colour of the sheets should be approved by the engineer).	Sq.m	634.00		
10.6.2	Supplying and fixing galvanized "C" purlin for Rafter 150mm x 65mm x 20mm - 2mm thick. Rate to including for two coats of anti-corrosive paint to welded joints.	L.m	147.00		
10.6.3	Supplying and fixing galvanized "C" purlin 100mm x 50mm x 20mm - 2mm thick. Rate to including for two coats of anti-corrosive paint to welded joints.	L.m	762.00		
10.6.4	Supplying and fixing 0.47mm thick Zn/ Al and Colour coated 300mm width sheet for barge, valance, fascia fixed to roof frame including box bar with necessary screws.	L.m	146.00		
10.6.5	Supplying and fixing 0.47mm thick Zn/ Al and Colour coated 450mm width sheet for barge, valance, fascia fixed to roof frame including box bar with necessary screws.	L.m	45.00		
10.6.6	Supplying & fixing 'H' iron 6" x 3" 6mm with necessary cleats to housing props including two coats of enamel paint with anticrossive paint. Rate shall include necessary cleats, cutting, welding transporting and erecting etc.	L.m	91.00		
10.6.7	Supplying & fixing 'H' iron 8" x 4" x 6mm thick with necessary cleats to housing props including two coats of enamel paint with anticrossive paint. Rate shall include necessary cleats, cutting, welding transporting and erecting etc.	L.m	101.00		
10.6.8	Supplying and fixing with 0.47mm thick colour coated Zink Aluminum metal wall cladding sheets. Rate to including for necessary accessories.(Brand, Profile and Colour of the sheets should be approved by the Engineer).	Sq.m	475.00		

10. Bill of Quantities for

Providing of Machinery Yard with Parking Shed of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
10.6.9	Supplying and fixing galvanized "C" purlin to wall 100mm x 50mm x 20mm - 2mm thick. Rate to including for two coats of anti-corrosive paint to welded joints.	L.m	550.00		
10.6.10	Supplying and fabricating 12mm thick base plate, 10mm support plate, 10mm thick fillet weld, 50mm thick non-shrink grout, 20mm dia 4 nos anchor bolts in 300mm depth and necessary Accessories for fix as directed for shed 1.	Nos	24.00		
10.6.11	Supplying and fabricating 12mm thick base plate, 10mm support plate, 10mm thick fillet weld, 50mm thick non-shrink grout, 20mm dia 6 nos anchor bolts in 300mm depth and necessary Accessories for fix as directed for shed 2.	Nos	20.00		
10.6.12	Supplying, fabricing and fixing of 62 x 62 x 6mm thick angle iron piece for cleats including two coats of anticorrosive paint as directed.	Nos	187.00		
	Sub total carried to summary				
	10.7. Plasterer				
10.7.1	20mm thick 1:3 cement sand mix rendering.	Sq.m	56.00		
10.7.2	20mm thick 1:3 cement rendering to plinth with colour cement foloating.	Sq.m	552.50		
	Sub total carried to summary				
	10.8. Aluminium work				
	<i>Sample should be submitted and approved by the Engineer</i>	Note			
10.8.1	Supplying and fixing of Aluminium mesh with necessary accessories as directed.	L.m	42.00		
10.8.2	Supplying and fixing natural aluminium roller door consisting aluminium slats to the thickness of 1.2mm centre bar pulleys side plate with the racers fabrication the mechanical box with M,S square tubes and covering the box and fixing on site with the bottom bars, necessary u channels and proper locking arrangement with heavy lock.	Sq.m	157.10		
	Sub total carried to summary				

10. Bill of Quantities for

Providing of Machinery Yard with Parking Shed of AgroTech Park at Malwaththa, SEUSL.

I.No	Description	Unit	Qty.	Rate	Amount
	10.9. Electrical work				
	<i>Sample should be submitted and approved by the Engineer</i>	Note			
10.9.1	Supplying & Fixing of 10" Exhaust Fan with wiring (1 years warranty).	Nos.	7.00		
10.9.2	Supplying & Fixing of flourscent lamp 4'-0". with wiring (1 years warranty).	Nos.	11.00		
10.9.3	Supplying and fixing of powder coated metal enclosure 16 way two rows with cover plate & wire including following accessories and bus bar. * 2P-40A Isollator - 1 No, * 2P-40Amp RCCB - 1No, * 1P-6A MCB - 4 Nos.	No.	1.00		
10.9.4	Supplying and fixing of powder coated metal enclosure 16 way two rows with cover plate & wire including following accessories and bus bar. *4P-63A Isollator - 1 No, *4P-63Amp RCCB - 1No, *5Pin 32A socket inlet.	No.	1.00		
10.9.5	Supplying and fixing 7/1.04 Cu\PVC\PVC - (6.0 sq.mm) wire.	L.m	10.00		
10.9.6	Supplying and fixing 7/1.35mm Cu\PVC\PVC - (10.0 sq.mm) wire.	L.m	10.00		
10.9.7	Supplying and fixing 2" Dia, 6' long G.I. Pipe as earth electrode.	Nos.	1.00		
	Sub total carried to summary				

**11.BILL OF QUANTITIES FOR
CONSTRUCTION OF SALES CENTRE OF AGROTECH PARK AT MALWATHTHA,
SEUSL.**

SUMMARY		
I.No	Description	Amount / Rs.
11.1	Excavator	
11.2	Concreter	
11.3	Form Work	
11.4	Iron Monger	
11.5	Brick Layer	
11.6	R/R Masonary	
11.7	Roof work	
11.8	Plasterer	
11.9	Paviour	
11.10	Painter and Decorator	
11.11	Aluminium work	
11.12	Water Supply and Drainage	
11.13	Electrical work	
Sub Total		

**11. Bill of Quantities for
Construction of Sales Centre of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	11.1 Excavator				
11.1.1	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	159.00		
11.1.2	Excavation in foundation for wall and column pits in hard/ dense soil a part return filling, ram and surplus disposed as directed.	Cu.m	55.00		
11.1.3	Anti termite treatment on excavated foundation and compacted soil under floors. The method of treatment and the chemicals to be used should be approved by the Engineer and minimum 10 year warranty certificate from a recognized organization should be provided.	Sq.m	159.00		
11.1.4	Imported selected gravel / hard core filling for land preparation and under floor, watering well rammed and consolidated in 75mm layers as directed.	Cu.m	46.60		
	Sub total carried to summary				
	11.2 Concreter				
11.2.1	1:2:4 (20 mm) cement sand mix concrete in screed	Cu.m	4.80		
11.2.2	1:2:4 (20 mm) cement sand mix concrete in footing base	Cu.m	5.50		
11.2.3	1:2:4 (20 mm) cement sand mix concrete in column shaft in Ground Floor.	Cu.m	4.20		
11.2.4	1:2:4 (20 mm) concrete in Plinth Beam.	Cu.m	4.80		
11.2.5	1:2:4 (20 mm) cement sand mix concrete in 113mmx150mm Lintol and R/F with 10mm 2 nos. tor steel including form work.	L.m	5.30		
11.2.6	Lintol 225mm x 150mm, cement concrete 1:2:4(20), Reinforcement with 2 No. 12mm tor steel including form work in Ground Floor.	L.m	63.00		
11.2.7	1:2:4 (20 mm) concrete in beam.	Cu.m	3.30		
11.2.8	1:2:4 (20 mm) cement concrete in floor.	Cu.m	8.10		
11.2.9	75mm thick RCC flat roof in 1:2:4(20) cement concrete and reinforced with 10mm tor steel at 125mm centres and 6mm mild steel at 200mm centres including shuttering.	Sq.m	1.80		
	Sub total carried to summary				

**11. Bill of Quantities for
Construction of Sales Centre of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	11.3. Form Work				
11.3.1	Form work in footing.	Sq.m	25.80		
11.3.2	Form work in column shaft	Sq.m	73.70		
11.3.3	Form work in plinth beam.	Sq.m	10.60		
11.3.4	Form work in beam	Sq.m	7.20		
	Sub total carried to summary				
	11.4. Iron Monger				
11.4.1	Tor steel for footing.	Kg.	333.00		
11.4.2	Tor steel for column shaft.	Kg.	358.00		
11.4.3	Tor steel for plinth beam.	Kg.	134.00		
11.4.4	Tor steel for beam.	Kg.	233.00		
11.4.5	Mild steel for column shaft and beams.	Kg.	495.00		
	Sub total carried to summary				
	11.5. Brick Layer				
11.5.1	225mm thick brick work in cement and sand 1:5 mix in Ground Floor.	Cu.m	46.00		
11.5.2	112mm thick brick work in cement and sand 1:5 mix.	Sq.m	15.20		
	Sub total carried to summary				
	11.6. R/R Masonary				
11.6.1	Random rubble masonry in cement and sand 1:5 mix upto D.P.C. Level.	Cu.m	39.70		
	Sub total carried to summary				
	11.7. Roof work				
11.7.1	Supplying and fixing 0.47mm thick Zn/Al and Colour coated roofing sheets with 75mm x 75mm sq. mesh and 8mm thick mat foil with double side Al. foil. Rate shall include for necessary Accessories and transport.(Gable Roof) (Brand, Profile and Colour of the sheets should be approved by the engineer).	Sq.m	184.30		
11.7.2	Supplying and fixing galvanized "C" purlin 100mm x 50mm x 20mm - 2mm thick. Rate shall include for two coats of anti-corrosive paint to only at welded joints.	L.m	55.20		
11.7.3	Supplying and fixing 0.47mm thick Zn/Al ridge capping of girth 470mm to match the colour of the roof. Rate shall include all necessary fasteners, etc.	L.m	20.10		
11.7.4	Supplying and fixing 0.47mm thick Zn/Al and Colour coated 300mm width sheet for barge, valance, fascia fixed to roof frame including box bar with necessary screws.	L.m	58.50		

**11. Bill of Quantities for
Construction of Sales Centre of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
11.7.5	Supplying and fixing of 150mm x 75mm x 6mm 'H' iron as truss including welding and anticrossive paint as directed. (Cleats and other paid separately)	L.m	27.60		
11.7.6	Supplying, fabricing and fixing 10mm thick base plate with 4nos 20mm dia 9" long anchor bolt & nut on top of wall/ column, 12mm dia nut and bolt and necessary accessories including welding and two coats of anticorrosive paint as directed.	Nos	6.00		
11.7.7	Supplying, fabricing and fixing of 65 x 65 x 6mm thick angle iron piece for cleats including two coats of anticorrosive paint as directed.	Nos	36.00		
11.7.8	Supplying and Fixing Zinc Aluminium and Colour coated 0.47mm eaves gutters with brackets, specials and screws at 200mm intervals	L.m	40.10		
11.7.9	Supplying and Fixing Zinc Aluminium and Colour coated 100x100mm down pipes with necessary brackets, specials and screws etc.	L.m	59.50		
Sub total carried to summary					
11.8 Plasterer					
11.8.1	16mm thick 1:3 cement sand plastering to external wall rough finished.	Sq.m	129.50		
11.8.2	16mm thick 1:3 cement sand plastering to internal wall finished and smooth.	Sq.m	168.80		
11.8.3	20mm thick 1:3 cement rendering to plinth with colour cement foloating.	Sq.m	38.30		
Sub total carried to summary:					
11.9 Paviour					
11.9.1	Supplying and laying of pressed tiles paving to floor and the joints pointed in neat cement coloured to match the tiles. approved colour set in cement and sand 1:3 mix bedding 12mm thick finished with pointed with tile grout to match the tiles.	Sq.m	102.30		
11.9.2	Skirting Tile in cement mortar 1:3 12mm x150mm projected or flush with floor tites to wall. Rate to include beading.	L.m	41.50		
11.9.3	Supplying and laying of pressed tiles paving to wash room floor and the joints pointed in neat cement coloured to match the tiles. approved colour set in cement and sand 1:3 mix bedding 12mm thick finished with pointed with tile grout to match the tiles.	Sq.m	6.30		
11.9.4	Supplying and laying of glazed tiles coloured wall tiles with all special corner etc.applied and fixed to wall including raking plastering and bedding in cement motor 1:2 mix for wash room.	Sq.m	30.30		
Sub total carried to summary:					

**11. Bill of Quantities for
Construction of Sales Centre of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	11.10 Painter and Decoror				
11.10.1	Painting all walls with acrylic wall filler to external wall in Ground Floor..	Sq.m	129.50		
11.10.2	Painting all wall with two coats of emulsion paint to internal including preparing surface	Sq.m	168.80		
11.10.3	Painting walls with two coats of whether shield paint to all external faces.	Sq.m	129.50		
11.10.4	Lime puttying smooth finish including preparing surface. (internal faces.)	Sq.m	168.80		
	Sub total carried to summary:				
	11.11. Aluminium work				
	<i>Sample should be submitted and approved by the Engineer prior to start the work.</i>	Note			
11.11.1	Supplying and fixing 100mm Natural or Brownzed aluminium double sash butt hinged openable door with louvers with middle rail and top with 5mm thick tinted glass panes and Bottom with aluminium cladding sheet, neoprene and wooleed beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, flush bolts, butt hinges, door handle with cap nut including inbuilt door frame as directed.	Sq.m	3.10		
11.11.2	Supplying and fixing 100mm Natural or Brownzed aluminium single sash butt hinged openable door with louvers with middle rail and top with 5mm thick tinted glass panes and Bottom with aluminium cladding sheet, neoprene and wooleed beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut and inbuilt outer door frame as directed.	Sq.m	5.10		
11.11.3	Supplying and fixing 100mm Natural or Brownzed aluminium Toilet single sash butt hinged openable door with middle rail and fully aluminium cladding sheet, neoprene and wooleed beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut.	Sq.m	5.10		

**11. Bill of Quantities for
Construction of Sales Centre of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
11.11.5	Supplying and fixing 41mm Natural aluminium casement window with louvers on top, consisting of 5mm thick tinted glass panes, casement lock, screws, pop rivots, gaskets,hinges, weather strip etc. as directed (2 sashes).	Sq.m	8.00		
11.11.6	Supplying and fixing of Natural aluminium sliding window without louvers on top for counter, consisting of 5mm thick tinted glass panes, lock, screws, pop rivots, gaskets, hinges, weather strip etc. as directed.	Sq.m	2.30		
11.11.7	Aluminium fan light with section bar frame including glass panes with necessary rubber beading.	Sq.m	0.90		
11.11.8	Supplying and fixing Door closer (Natural type) to the door and all necessary accessories with fittings as directed	Nos	4.00		
11.11.9	Supplying and fixing of suspended ceiling with aluminum grid, super flex (600x1200mm) sheets and necessary materials as directed by Engineer.	Sq.m	165.60		
	Sub total carried to summary				
	11.12 Water Supply and Drainage				
11.12.1	Supplying and fixing of 20mm dia. PVC ball valve with necessary fittings.	Nos	1.00		
11.12.2	Supplying and fixing of wash Basin, lavoratory colour with pedestal, 1tap, waste plugs, new brackets and complete.	Nos	3.00		
11.12.3	Closet pedestal type with low level (Ceramic) flushing cistern flush pipe double plastic seat cover 20mm stop cock trap,hand bidet shower etc supplied & fixed (Without wash basin)	Nos	2.00		
11.12.4	Closet foot rest squatting type with trap supplied & fixed squatting pan & trap.	Nos	1.00		
11.12.5	Supplying and fixing mirror (500x450mm) above wash basin to wall with choromium plated fittings and soap tray. All items fixed to wall with rawl plugs	Nos	2.00		
11.12.6	Supplying and fixing 20mm dia. Bib tap with necessary fittings	Nos.	4.00		
11.12.7	Supplying and laying 20mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	9.00		
11.12.8	Supplying and laying 32mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	6.00		
11.12.9	Supplying and laying 40mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	3.00		
11.12.10	Supplying and laying 63mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	6.00		

**11. Bill of Quantities for
Construction of Sales Centre of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
11.12.11	Supplying and fixing 110mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	6.00		
11.12.12	Drains PVC 110mm laid on 1:3:6 (40) cement concrete 150mm thick upto 600mm depth of invert including excavation & cement concrete hunching.	L.m	3.00		
11.12.13	Gulley PVC 100mm supplied & fixed including gulley box.	Nos	2.00		
11.12.14	Man hole size in 600mm x 600mm x up to 600mm depth internally built in 225mm thick brick work and 1:2:4(20mm) base including 1:2 cement sand mix plastering in exposed faces and make proper slope drainage with neat cement floating including 75mm thick 1:2:4(20mm) cover slab, reinforced in 6mm dia M/S at 75mm c/c both ways with lifting handle to working order as per plan and directed.	Nos.	2.00		
11.12.15	Soakage pit for sewerage size in 1500mm dia inner and 2400mm deep built in 225mm thick brick wall, excavation, 75mm thick R.C.C cover slab R/F with 10 mm dia tor steel bars at 125mm c/c, 6mm dia mild steel bars @ 200mm c/c and 1:2:4(20mm) concrete. and completed as per drawing.	Nos.	1.00		
11.12.16	Soakage pit for waste water size in 1200mm dia inner and 2100mm deep built in 225mm thick brick wall, excavation, 75mm thick R.C.C cover slab R/F with 10 mm dia tor steel bars at 125mm c/c, 6mm dia mild steel bars @ 200mm c/c and 1:2:4(20mm) concrete. and completed as per drawing.	Nos.	1.00		
	Sub total carried to summary				

**11. Bill of Quantities for
Construction of Sales Centre of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	11.13. Electrical work				
11.13.1	Supplying & fixing of 13A Switched Socket Out Let with PEN conductor 7/0.67 mm wiring. (Life time warranty for swtches)	Nos.	8.00		
11.13.2	Supplying & Fixing of in-door LED Bulb Square/round Shape 18W Surface mounted type with 1/1.13 wiring (2 years warranty) in Ground Floor.	Nos.	18.00		
11.13.3	Supplying and fixing of ceiling fan approved quality of 56" sweep with regulator all specials. Rate shall include for necessary PEN conductor 1/1.13mm wiring etc. (KDK N series or bajaj equelant)	Nos.	7.00		
11.13.4	Supplying & Fixing of flourscent lamp 4'-0" with wiring (1 years warranty).	Nos.	6.00		
11.13.5	Supplying and fixing of powder coated metal enclosure 24 way with cover plate including following accessories and bus bar. * 2P-40A Isollator - 1 No, * 2P-40Amp RCCB - 1No, * 1P-10A MCB - 8 Nos. * 1P-6A MCB - 5 Nos.	No.	1.00		
11.13.6	Supplying and fixing 7/1.04 Cu\PVC\PVC - (6.0 sq.mm) wire.	L.m	10.00		
11.13.7	Supplying and fixing 2" Dia, 6' long G.I. Pipe as earth electrode.	Nos.	1.00		
	Sub total carried to summary				

**12.BILL OF QUANTITIES FOR
CONSTRUCTION OF WEATHER CENTRE OF AGROTECH PARK AT
MALWATHTHA, SEUSL.**

SUMMARY

I.No	Description	Amount / Rs.
12.1	Excavator	
12.2	Concreteer	
12.3	Form Work	
12.4	Iron Monger	
12.5	R/R Masonary	
12.6	Fence and Gate	
12.7	Turfing	
12.8	Electrical work	225,000.00
Sub Total		

**12. Bill of Quantities for
Construction of Weather Centre of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	12.1 Excavator				
12.1.1	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	289.00		
12.1.2	Excavation in foundation for wall and column pits in hard/ dense soil a part return filling, ram and surplus disposed as directed.	Cu.m	24.30		
12.1.3	Imported selected gravel / hard core filling under floor, watering well rammed and consolidated in 75mm layers as directed.	Cu.m	95.30		
	Sub total carried to summary				
	12.2 Concreter				
12.2.1	1:2:4 (20 mm) cement concrete to screed in foundation.	Cu.m	2.70		
12.2.2	1:2:4 (20 mm) concrete in Plinth Beam.	Cu.m	4.10		
	Sub total carried to summary				
	12.3. Form Work				
12.3.1	Form work in plinth beam.	Sq.m	18.00		
	Sub total carried to summary				
	12.4. Iron Monger				
12.4.1	Tor steel for plinth beam.	Kg.	107.00		
	Sub total carried to summary				
	12.5. R/R Masonary				
12.5.1	Random rubble masonry in cement and sand 1:5 mix upto D.P.C. Level.	Cu.m	29.70		
	Sub total carried to summary				

**12. Bill of Quantities for
Construction of Weather Centre of AgroTech Park at Malwaththa, SEUSL.**

I.No	Description	Unit	Qty.	Rate	Amount
	12.6. Fence and Gate <i>Sample should be submitted and approved by the Engineer prior to start the work.</i>	Note			
12.6.1	PVC coated fencing Making & fixing 1 1/2" Dia (2mm thick) G.I pipe post to 4'-0" height and cutting, belding & welding as per plan and 2 coat anticorrosive & one coat emmulsion painting (Rate to Include 300 mm X 300mm X 300mm 1:2:4 Concrete for placing of G.I post) and Supplying of PVC Coated 2"x2" Wire Netting (Guage 10) & fixing to fence post, frames with 1 1/2"dia G.I pipe of top and bottom including (Fixed) painting with 2 coats of anticorrosive paint. (As per directed)	L.m	47.00		
12.6.2	Supplying and fixing of single sash door with 25 x 25mm(1") G.I heavy duty box bar & PVC Coated 2"x2" Wire Net (Guage 10) covering with necessary accessories including cutting, welding, hinges, handle and locking arrangement & Pad lock - 1 No. with one coat of anticorrosive and two coats of enamel paint as directed..	No	1.00		
	Sub total carried to summary				
	12.7 Turfing				
12.7.1	Turfing including transport, watering & maintaining turf for three months including transport of water with all necessary work as required by the Engineer	Sq.m	225.00		
	Sub total carried to summary				
	12.8. Electrical work				
12.8.1	Supplying, fixing and commissioning Solar Pannel with necessary accessories	P.S	Allow	Sum	200,000.00
12.8.2	Electrical Work	P.S	Allow	Sum	25,000.00
	Sub total carried to summary				225,000.00

**BILL OF QUANTITIES FOR
CONSTRUCTION OF ASPHALT & CONCRETE SURFACE ROAD WITH
AGGREGATE BASE COURSE AND INTER-LOCK PAVING PATH OF AGROTECH
PARK AT MALWATHTHA, SEUSL - 330M.**

SUMMARY		
I.No	Description	Amount / Rs.
13.A	Asphalt Surface Road - 270.0m	
13.A 1	Earth Works	
13.A 2	Road Works	
13.A 3	Hume Pipe culvert - 4Nos [450 mm(1-1/2'dia.) single row]	
13.A 4	Painting, Road Marking and Sign Board	
13. B	Concrete Surface Road -60.0m	
13.B 1	Earth Works	
13.B 2	Road Works	
13.B 3	Side Drain - 74.0 m	
13.C	Paving Interlock to the internal path	
13.C	Paving Interlock	
Sub Total		

13.Bill of Quantities for

Construction of Asphalt & Concrete Surface Road with Aggregate base course and Inter-lock Paving Path of AgroTech Park at Malwaththa, SEUSL - 330m.

I.No	Description	Unit	Qty.	Rate	Amount
13.A Asphalt Surface Road - 270.0m					
13.A1 Earth Works					
13.A1.1	Roadway excavation in hard soil (cutting measurement) including loading, unloading and transporting within 2km unless otherwise specified.	m ³	57.80		
13.A1.2	Trimming, leveling and compacting of original ground to 95% STD density after excavation.	m ²	1,890.00		
Sub total for carried to the summary:					
13.A 2 Road Works					
13.A2.1	Gravel or Approved soil for bases & shoulders with supplying, spread & rolled using machinery incl. motor grader and roller hire charges fuel & watering (Loose Volume - Vehicle measurement)	m ³	100.10		
13.A2.2	Supplying and laying of ABC with Transport including spreading, watering and compacting as base course as directed by the Engineer. (Loose Volume - Vehicle measurement)	m ³	460.10		
13.A2.3	Supplying and laying of Kerb - stone (Standard Size - 125 X 250 X 900mm) including base in cement concrete 1:2:4(20 mm) as directed by the Engineer	L.m	540.00		
13.A2.4	Prime coat to the Existing Tar Surface Using MC30 or CRS2 at the rate of 1.0lit/sq.m, using plant, and blinding with sand at the rate of 250 sq.m/cu.m. Rate shall including internal transport, cleaning and removing sand from road surfaces.	m ²	1,620.00		
13.A2.5	Application of Tack coat using CRS1 in 0.75 lit/sq.m as asphalt emulsion	m ²	1,620.00		
13.A2.6	Supply and laying of Asphalt concrete for wearing course with Surface correction	M.T	202.50		
Subtotal for carried to the summary:					

13.Bill of Quantities for

Construction of Asphalt & Concrete Surface Road with Aggregate base course and Inter-lock Paving Path of AgroTech Park at Malwaththa, SEUSL - 330m.

I.No	Description	Unit	Qty.	Rate	Amount
13.A3	Hume Pipe culvert - 4Nos [450 mm(1-1/2'dia.) single row]				
13.A3.1	Excavation for pipe culvert in hard soil (cutting measurement) including backfilling.	m ³	13.60		
13.A3.2	Mixing and laying cement concrete 1:2:4(20 mm) mix including compaction using poker vibrator and curing	m ³	12.00		
13.A3.3	Supplying and fixing 25mm thick planks pf class II timber as shuttering including removing.	m ²	83.80		
13.A3.4	Fabricating & laying Tor steel as reinforcement (including transport)	kg	236.60		
13.A3.5	Supplying, laying and jointing of pipes 450 mm (1-1/2') dia. (single row)	L.m	29.30		
13.A3.6	Plastering 19mm thick in 1:3 mix cement sand mortar finished rough.	m ²	38.90		
13.A3.7	Supplying, filling, spreading, watering and compacting of River Sand	P.S	Allow	Sum	50,000.00
	Subtotal for carried to the summary:				
13.A 4	Painting, Road Marking and Sign Board				
13.A4.1	White washing two coats of emulsion paint to guard wall / guard stone.	m ²	38.90		
13.A4.2	Cleaning & painting 100 mm wide stripe for skirting to guard wall / guard stone.	L.m	13.30		
13.A4.3	Road marking painting with continuous side line 100mm width using thermoplastic paint (white) inclusive barricating rates shall includes paint material and reflective glass beads as directed.	m ²	54.00		
13.A4.4	Painting two coats of enamel paint to kerb stone, Rate shall include cleaning and preparation of surafces as directed.	m ²	189.00		
13.A4.5	Road marking standared pedestrian crossing using thermoplastic paint (white) inclusive barricating. Rate shall includes paint material and reflective glass beads at specified locations as directed.	m ²	30.60		
13.A4.6	Single poles sign board, sign area upto 0.5sq.m (Steel made) with STD paint such as No Parking, Turn, Parking, Road Crossing etc.. as directed. (RDA Standard)	P.S	Allow	Sum	80,000.00
	Subtotal for carried to the summary:				

13.Bill of Quantities for

Construction of Asphalt & Concrete Surface Road with Aggregate base course and Inter-lock Paving Path of AgroTech Park at Malwaththa, SEUSL - 330m.

I.No	Description	Unit	Qty.	Rate	Amount
13.B	Concrete Surface Road -60.0m				
13.B 1	Earth Works				
13.B1.1	Trimming, leveling and compacting of original ground to 95% STD density after excavation.	m ²	432.00		
	Sub total for carried to the summary:				
13.B 2	Road Works				
13.B2.1	Gravel or Approved soil for bases & shoulders with supplying, spread & rolled using machinery incl. motor grader and roller hire charges fuel & watering (Loose Volume - Vehicle measurement)	m ³	182.60		
13.B2.2	Mixing and laying cement concrete 1:2:4(19 mm) mix including compaction using poker vibrator and curing.	m ³	54.00		
13.B2.3	Supplying and fixing 25mm thick planks pf class II timber as shuttering including removing.	m ²	18.00		
13.B2.4	Fabricating & laying Tor steel as reinforcement (including transport)	kg	884.90		
13.B2.5	Providing construction joint to every 5.0 m intervals with 25mm thick Regiform	L.m	66.00		
13.B2.6	Expansion joints in height Concrete floor filled with bitumen and sand	m ²	9.90		
13.B2.7	Supplying & laying polythene sheet before concreting	m ²	360.00		
	Subtotal for carried to the summary:				

13.Bill of Quantities for

Construction of Asphalt & Concrete Surface Road with Aggregate base course and Inter-lock Paving Path of AgroTech Park at Malwaththa, SEUSL - 330m.

I.No	Description	Unit	Qty.	Rate	Amount
13.B 3	Side Drain - 74.0 m				
13.B3.1	Excavation for pipe culvert in hard soil (cutting measurement) including backfilling.	m ³	27.70		
13.B3.2	Mixing and laying cement concrete 1:3:6(19 mm) mix including compaction.	m ³	2.40		
13.B3.3	Mixing and laying cement concrete 1:2:4(20 mm) mix including compaction using poker vibrator and curing	m ³	16.90		
13.B3.4	Supplying and fixing 25mm thick planks pf class II timber as shuttering including removing.	m ²	236.10		
13.B3.5	Fabricating & laying Tor steel as reinforcement (including transport)	kg	1,069.00		
	Subtotal for carried to the summary:				
13.C	Paving Interlock to the internal path				
13.C.1	Trimming, leveling and compacting of original ground to 95% STD density after excavation.	m ²	214.40		
13.C.2	Gravel or Approved soil for bases with supplying, spread & rolled using machinery incl. motor grader and roller hire charges fuel & watering (Loose Volume - Vehicle measurement)	m ³	11.40		
13.C.3	Supplying and laying of Kerb - stone (Standard Size - 125 X 250 X 900mm) including base in cement concrete 1:2:4(20 mm) as directed by the Engineer	L.m	268.00		
13.C.4	Supplying and laying of Precast Interlock blocks with transport including level with quarry dust bedding. (Block strength 30 N for road work) and complete as per given drwg. And specification with color of block. (Sample should approved by Engineer.)	m ²	174.20		
13.C.5	Painting two coats of enamel paint to kerb stone, Rate shall include cleaning and preparation of surafces as directed.	m ²	72.40		
	Sub total carried to summary				

14. BILL OF QUANTITIES FOR
CONSTRUCTION OF INTERNAL EARTH ROAD OF AGROTECH PARK AT
MALWATHTHA, SEUSL.

SUMMARY		
I.No	Description	Amount / Rs.
14.1	Internal Road Work (approx. 410m)	
14.2	Hume Pipe Culvert (450mm/1'-6" dia) - 02 Nos	
Sub Total of Civil Work		

14. Bill of Quantities for

Construction of Internal Earth Road of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
	14.1 Internal Road Work - 410.0 m Note: Follow Guidelines of CIDA Publication Book Ref. No. SCA/3/1, SCA/3/3 for Specification of Work				
14.1.1	Cleaning medium bushes including removing all high growing plants and trees of girth less than 300 mm other than those designated to remain, by uprooting or by cutting and then uprooting the stumps or by cutting only as directed	m ²	2,460.00		
14.1.2	Allow for motor grader to forming road base as directed	hrs.	14.00		
14.1.3	Trimming, leveling and compacting of original ground to form the road and all vegetation should be removed.	m ²	1,763.00		
14.1.4	Supplying of approved quality soil (loose volume). Rate shall include machinery & transport (Vechicle measurement)	m ³	529.70		
14.1.5	Spreading, watering and compacting of above supplied item 14.1.4 using Motor Grader & roller (layer thickness 150mm)	m ³	529.70		
14.1.6	Supplying of gravel or approved soil (Type I & II - loose volume) Rate shall include machinery & transport (Vechicle measurement)	m ³	351.80		
14.1.7	Spreading, watering and compacting of above supplied item 14.1.6 using Motor Grader & roller (layer thickness 150mm)	m ³	351.80		
	Sub total for Internal Roads carried to summary				

14. Bill of Quantities for

Construction of Internal Earth Road to Malwatta Farm at Malwatta for Faculty of Technology of SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
	14.2 Hume Pipe culvert - 2 Nos [450 mm(1-1/2' dia.) single row] Note: Follow Guidelines of CIDA Publication Book Ref. No. SCA/3/1, SCA/3/3 for Specification of Work				
14.2.1	Excavation for pipe culvert in hard soil (cutting measurement) including backfilling.	m ³	6.60		
14.2.2	Mixing and laying cement concrete 1:2:4(20 mm) mix including compaction using poker vibrator and curing	m ³	4.30		
14.2.3	Supplying and fixing 25mm thick planks pf class II timber as shuttering including removing.	m ²	25.00		
14.2.4	Supplying, laying and jointing of pipes 450 mm (1-1/2') dia. (single row)	L.m	9.80		
14.2.5	Plastering 19mm thick in 1:3 mix cement sand mortar finished rough.	m ²	2.20		
14.2.6	Supplying, filling, spreading, watering and compacting of River Sand	P.S	Allow	Sum	40,000.00
14.2.7	White washing two coats of emulsion paint to guard wall / guard stone for new culvert.	m ²	10.60		
14.2.8	White washing two coats of emulsion paint to guard wall / guard stone for existing culvert.	m ²	105.40		
14.2.9	Cleaning & painting 100 mm wide stripe for skirting to guard wall / guard stone.	L.m	109.20		
	Subtotal for carried to the summary:				

15.BILL OF QUANTITIES FOR

15.CONSTRUCTION OF SECURITY HUT OF AGROTECH PARK AT MALWATHTHA, SEUSL.

SUMMARY OF SECURITY HUT		
Nos.	Description	Amount / Rs.
15.1	Excavator	
15.2	Concreteer	
15.3	Brick Layer	
15.4	R/R Masonary	
15.5	Pavior	
15.6	Roofer	
15.7	Plasterer	
15.8	Painter and Decorator	
15.9	Door and Windows Work	
15.10	Water Supply and Drainage	
15.11	Electrical work	
Sub Total		

Bill of Quantities

15. Construction of Security Hut of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
15.1.	Excavator				
15.1.1	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	24.60		
15.1.2	Excavation for foundation of wall and column in hard soil, a part return fill in and ram and surplus disposed as directed by Engineer.	Cu.m	6.50		
15.1.3	Anti termite treatment on excavated foundation and compacted soil under floors. The method of treatment and the chemicals to be used should be approved by the Engineer and minimum 10 year warranty certificate from a recognized organization should be provided.	Sq.m	25.00		
15.1.4	Filling gravel/ hard core under floor including leveling, watering and compacting in 75mm laying imported selected earth	Cu.m	2.40		
	Sub total carried to summary				
15.2.	Concreter				
15.2.1	1:2:4 (20 mm) cement sand mix concrete to screed in foundation	Cu.m	0.80		
15.2.2	1:2:4 (20 mm) concrete in Plinth Beam.	Cu.m	1.20		
15.2.3	1:2:4 (20 mm) cement sand mix concrete in 225mmx150mm Lintol and R/F with 12mm 2 nos. tor steel including form work.	L.m	15.90		
15.2.4	1:2:4 (20 mm) cement sand mix concrete in 113mmx150mm Lintol and R/F with 10mm 2 nos. tor steel including form work.	L.m	1.10		
15.2.5	1:2:4 (20 mm) concrete in beam.	Cu.m	0.90		
15.2.6	75mm 1:2:4 (20 mm) cement sand mix concrete in floor	Cu.m	0.50		
	Form Work				
15.2.6	Form work in plinth beam.	Sq.m	5.10		
15.2.7	Form work in beam	Sq.m	7.20		
	Reinforcement				
15.2.8	Tor steel for plinth beam.	Kg.	27.00		
15.2.9	Tor steel for beam.	Kg.	57.00		
15.2.10	Mild steel for beam.	Kg.	103.00		
	Sub total carried to summary				

Item	Description	Unit	Qty.	Rate	Amount
15.3.	Brick Layer				
15.3.1	225mm thick brick work in cement and sand 1:5 mix	Cu.m	9.20		
15.3.2	112mm thick brick work in cement and sand 1:5 mix	Sq.m	1.90		
	Sub total carried to summary				
15.4.	R/R Masonry				
15.4.1	Random rubble masonry in cement and sand 1:5 mix up to D.P.C. Level.	Cu.m	8.10		
	Sub total carried to summary				
15.5.	Pavior				
15.5.1	Glazed tiles coloured floor tiles with all special corner etc. applied and fixed to floor including raking plastering and bedding in cement (Tile adhesive) motor 1:2 mix.	Sq.m	3.30		
15.5.2	Glazed tiles coloured wall tiles with all special corner etc. applied and fixed to wall including raking plastering and bedding in cement (Tile adhesive) motor 1:2 mix.	Sq.m	13.60		
	Sub total carried to summary				
15.6.	Roofer				
15.6.1	Roof, Hipped with Calicut pattern tiles on 150x50 ridge and hip plates, 150x 75 purlin, 100x75 wall plates, in Gr. ii timber & 100x50 rafter 550 mm centers and 50x25 reaper at 300 centers in grandis timber frame work including ridging and application of two coats wood preservative etc.	Sq.m	30.50		
15.6.2	Board, barge, valance, fascia 225 x 20mm thick in Ginisappu timber fixed complete with necessary screws including Painting with 1 coat of primer and 2 coats of enamel paint.	L.m	21.00		
15.6.3	Supplying and Fixing Zinc Aluminium and Colour coated 0.47mm eaves gutters with brackets, specials and screws at 200mm intervals	L.m	21.00		
15.6.4	Supplying and Fixing Zinc Aluminium and Colour coated 100x100mm down pipes with necessary brackets, specials and screws etc.	L.m	17.00		
	Sub total carried to summary				

Item	Description	Unit	Qty.	Rate	Amount
15.7. Plasterer					
15.7.1	16mm thick 1:3 cement sand plastering finished rough to external wall.	Sq.m	43.00		
15.7.2	16mm thick 1:3 cement sand plastering to internal and external wall finished and smooth	Sq.m	37.10		
15.7.3	20mm thick 1:3 cement rendering to plinth with colour cement faloating.	Sq.m	10.20		
15.7.4	20mm thick 1:3 cement rendering to with cement faloating.	Sq.m	6.60		
	Sub total carried to summary				
15.8. Painter and Decorator					
15.8.1	Painting all walls with acrylic wall filler to external wall	Sq.m	43.00		
15.8.2	Painting all wall with two coats of emulsion paint to internal including preparing surface	Sq.m	37.10		
15.8.3	Painting walls with two coats of wheher shield paint to all external faces in Ground Floor.	Sq.m	43.00		
15.8.4	Lime puttying smoth finish including preparing surface.(internal faces)	Sq.m	37.10		
	Sub total carried to summary				
15.9. Door and Windows Work					
15.9.1	Supplying and fixing 100mm Natural or Brownzed aluminium single sash butt hinged openable door with louvers with middle rail and top with 5mm thick tinted glass panes and Bottom with aluminium cladding sheet, neoprene and woold beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut and inbuilt outer door frame as directed.	Sq.m	2.60		
15.9.2	Supplying and fixing 100mm Natural or Brownzed aluminium Toilet single sash butt hinged openable door with middle rail and fully aluminium cladding sheet, neoprene and woold beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut.	Sq.m	3.40		

Item	Description	Unit	Qty.	Rate	Amount
15.9.3	Supplying ,fabricating and fixing of 70mm (1.3mm thick) bronzed Aluminum frame sliding window with 5mm thick clear glass with louvers including sliding lock , screw, rubber heading, wall plugs etc. as directed (2 sash)	Sq.m	3.50		
15.9.4	Aluminium fan light section bar frame including glass panes with necessary rubber beading.	Sq.m	0.50		
15.9.5	Supplying and fixing Door closer (Natural type) to the door and all necessary accessories with fittings as directed	Nos	2.00		
15.9.6	Supplying and fixing of suspended ceiling with aluminum grid, super flex (600x1200mm) sheets and necessary materials as directed by Engineer.	Sq.m	8.40		
15.9.7	Flat superflex eaves ceiling fixed to 100mm x 50mm joists and 50mm bearers of special class upper timber including 40mmx12mm cover fillets and 63mm x 25mm coves of Grandies timber.	Sq.m	15.70		
	Sub total carried to summary				
15.10.	Water Supply and Drainage				
15.10.1	Ball valve 20mm supplied and fixed.	No.	1.00		
15.10.2	Basin, lavatory white medium(550x400mm) with 1tap waste plugs, new brackets supplied and fixed completed.	No.	1.00		
15.10.3	Supplying and fixing of squatting pan with necessary trap foot rest in large sizes as per working order	No.	1.00		
15.10.4	Supplying and fixing mirror (500x450mm) above wash basin to wall with choromium plated fittings and soap tray. All items fixed to wall with rawl plugs	Nos	1.00		
15.10.5	Supplying and fixing 20mm dia. Bib tap with necessary fittings	No.	3.00		
15.10.6	Supplying and fixing 20mm PVC pipe (1000 type)	Lm	9.00		
15.10.7	Supplying and fixing 25mm PVC pipe (1000 type)	Lm	12.00		
15.10.8	Supplying and laying 40mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	6.00		
15.10.9	Supplying and fixing 110mm dia 1000 type P.V.C. pipe with necessary fittings.	L.m	2.00		

Item	Description	Unit	Qty.	Rate	Amount
15.10.10	Drains PVC 110mm laid on 1:3:6 (40) cement concrete 150mm thick up to 600mm depth of invert including excavation & cement concrete hunching.	L.m	3.00		
15.10.11	Manhole 600x600 mm and up to 600mm deep 225mm thick brick in cement 1:3 walls and cement rendered 12mm (1:2) with 150 mm cement conc. Foundation 1:3:6(40) including forming channels, with cover reinforced dia. 6mm M/S at 75mm. center both ways	No.	2.00		
15.10.12	Soakage pit size in 1200mm dia. inner and 1800mm deep built, covering and completed as per drawing.	Nos.	2.00		
	Sub total carried to summary				
15.11.	Electrical work				
15.11.1	Supplying and fixing 13 Amp socket out let with all specials. Rate shall include for necessary wiring etc.	Nos	2.00		
15.11.2	Supplying & Fixing in door LED Bulb Square Shape 18W Sunk type with wiring	Nos	2.00		
15.11.3	Supplying and fixing of Aluminium blade ceiling fan approved quality of 56" sweep, universal fan control with switch and all specials. Rate shall include for necessary wiring etc. (Bajaj or equivalent)	Nos	1.00		
15.11.4	Supplying & Fixing of flourscent lamp 4'-0". with wiring (1 years warranty).	Nos.	4.00		
15.11.5	Supplying and fixing of powder coated metal enclosure 12 way with cover plate including following accessories and bus bar. * 2P-40A Isollator - 1 No, * 2P-40Amp RCCB - 1No, * 1P-10A MCB - 1 Nos. * 1P-6A MCB - 2 Nos.	No.	1.00		
15.11.6	Supplying and fixing 7/1.04 Cu\PVC\PVC - (6.0 sq.mm) wire.	L.m	10.00		
15.11.7	Supplying and fixing 2" Dia, 6' long G.I. Pipe as earth electrode.	Nos.	1.00		
	Sub total carried to summary				

16.BILL OF QUANTITIES FOR

**CONSTRUCTION OF CONCRETE DRAIN AND SLUICE GATE OF AGROTECH PARK AT
MALWATHTHA, SEUSL.**

SUMMARY		
I.No.	Description	Amount/ Rs.
16.A	Side Drain - Type I - 250.0 m	
16.B	Side Drain - Type II - 408.0 m	
16.C	3 Rows Hume Pipe Culvert with Sluice Gate	
Sub Total		

16.Bill of Quantities for

Construction of Concrete Drain and Sluice Gate of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
16.A	Side Drain - Type I - 250.0 m				
16.A1.1	Excavation for pipe culvert in hard soil (cutting measurement) including backfilling.	m ³	126.00		
16.A1.2	Mixing and laying cement concrete 1:3:6(20mm) mix including compaction.	m ³	8.20		
16.A1.3	Mixing and laying cement concrete 1:2:4(20 mm) mix including compaction using poker vibrator and curing	m ³	46.30		
16.A1.4	Fabricating & laying Tor steel as reinforcement (including transport)	kg	2,198.00		
16.A1.5	Supplying and fixing 25mm thick planks pf class II timber as shuttering including removing.	m ²	675.40		
	Subtotal for carried to the summary:				
16.B	Side Drain - Type II - 408.0 m				
16.B1.1	Excavation for pipe culvert in hard soil (cutting measurement) including backfilling.	m ³	253.00		
16.B1.2	Mixing and laying cement concrete 1:3:6(20 mm) mix including compaction.	m ³	16.40		
16.B1.3	Mixing and laying cement concrete 1:2:4(20 mm) mix including compaction using poker vibrator and curing	m ³	81.60		
16.B1.4	Fabricating & laying Tor steel as reinforcement (including transport)	kg	2,660.00		
16.B1.5	Supplying and fixing 25mm thick planks pf class II timber as shuttering including removing.	m ²	1,102.00		
	Subtotal for carried to the summary:				

16.Bill of Quantities for

Construction of Concrete Drain of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
16.C	Single Row Hume Pipe Culvert with Sluice Gate				
16.C1.1	Excavation for pipe culvert in hard soil (cutting measurement) including backfilling.	m ³	21.10		
16.C1.2	Mixing and laying cement concrete 1:3:6(20 mm) mix including compaction.	m ³	5.30		
16.C1.3	Mixing and laying cement concrete 1:2:4(20 mm) mix including compaction using poker vibrator and curing	m ³	4.70		
16.C1.4	Supplying and fixing 25mm thick planks pf class II timber as shuttering including removing.	m ²	31.10		
16.C1.5	Fabricating & laying Tor steel as reinforcement (including transport)	kg	44.00		
16.C1.6	Supplying, laying and jointing of pipes 450 mm (1-1/2') dia. (single row)	L.m	7.40		
16.C1.7	Supplying and fixing of steel gates excluding lifting arrangements with two coats of anticorrosive paints.	m ²	1.40		
16.C1.8	Supplying and fixing of lifting and locking arrangements to the above gates (37mm dia size of spindle, brass nut, housing, base plate, operating handle, rag bolts & etc.) with two coats of anticorrosive paints.	Nos.	3.00		
	Subtotal for carried to the summary:				

17.BILL OF QUANTITIES FOR
LANDSCAPING WORK (PLANTING TREES, INTERNAL PAVING,
CONSTRUCTION OF CAR PARK SHED AND FENCE FOR TRANSFORMER) OF
AGROTECH PARK AT MALWATHTHA, SEUSL.

SUMMARY		
I.No	Description	Amount / Rs.
17.1	Planting Tree	300,000.00
17.2	Paving Interlock to the internal path	
	Construction of Car Park - 6 Slots	
17.3	Excavator and Earth Work	
17.4	Concrete	
17.5	Form Work	
17.6	Iron Monger & Roofer	
17.7	Plasterer	
	Chain link Fence for Transformer	
17.8	Excavator	
17.9	Excavator and Earth Work	
17.10	R/R Masonary	
17.11	Fence and Gate	
Sub Total of Civil Work		

17. Bill of Quantities for

Landscaping Work (Planting Trees, Internal Paving, Construction of Car Park Shed and Fence for Transformer) of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
	17.1 Planting Tree				
17.1.1	Supplying and planting of Trees in building areas	P.S	Allow	Sum	300,000.00
	Sub total 5 carried to summary				300,000.00
	17.2 Paving Interlock to the internal path				
17.2.1	Trimming, leveling and compacting of original ground to 95% STD density after excavation.	Sq.m	160.00		
17.2.2	Excavator and Earth Work	Cu.m	8.50		
17.2.3	Supplying and laying of Kerb - stone (Standardized Size - 125 X 250 X 900mm) including base in cement concrete 1:2:4(20 mm) as directed by the Engineer	L.m	230.00		
17.2.4	Supplying and laying of Precast Interlock blocks with transport including level with quarry dust bedding. (Block strength 30 N for road work) and complete as per given drwg. And specification with color of block. (Sample should be approved by Engineer.)	Sq.m	130.00		
17.2.5	Painting two coats of enamel paint to kerb stone, Rate shall include cleaning and preparation of surfaces as directed.	Sq.m	54.00		
	Sub total carried to summary				
	Car Park Shed - 6Slots				
	17.3. Excavator and Earth Work				
17.3.1	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	160.00		
17.3.2	Fence and Gate	Cu.m	3.00		
17.3.3	Imported selected gravel / hard core filling under floor, watering well rammed and consolidated in 75mm layers as directed.	Cu.m	39.00		
	Sub total 1 carried to summary				

17. Bill of Quantities for

Landscaping Work (Planting Trees, Internal Paving, Construction of Car Park Shed and Fence for Transformer) of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
	17.4. Concreter				
17.4.1	1:2:4 (20 mm) cement sand mix concrete in footing	Cu.m	1.50		
17.4.2	100mm thick 1:2:4 (20 mm) cement concrete in floor.	Cu.m	12.10		
17.4.3	Providing expansion joints with regiform, after construction filled with bitumen sand mixed as directed by Engineer.	L.m	35.00		
	Sub total 2 carried to summary				
	17.5 Form Work				
17.5.1	Form work in perimeter kerbs. Rate include for removal	Sq.m	32.00		
	Sub total 3 carried to summary				
	17.6.Iron Monger & Roofer				
17.6.1	Supplying and fixing of 50mm(2") dia. G.I. heavy duty pipe posts with necessary cutting, bending, welding and two coats of enamel paint with anticorrosive paint, after completion of pipe work, all pipes end should be sealed properly as directed.	Nos.	7.00		
17.6.2	Supplying and fixing of 40mm(1-1/2") G.I heavy duty pipe Rafter with back support post and cleats including necessary cutting, bending, welding and two coats of enamel paint with anticorrosive paint, after completion of pipe work, all pipes end should be sealed properly as directed.	Nos.	7.00		
17.6.3	Supplying and fixing of 40(1-1/2") x 40mm (1-1/2") G.I heavy duty box bar with necessary bolts & and nuts including two coats of enamel paint with anticorrosive paint, after completion of pipe work, all pipes end should be sealed properly as directed	Sq.m	149.00		
17.6.4	Supplying and fixing 0.47mm thick Zn/Al colour coated roofing sheets with one edge curved shape as per drwg. including hooks and necessary accessories as directed	Sq.m	127.00		
17.6.5	Tor steel rods in reinforcing in perimeter kerbs bent shape laid in position with G.I. wires as directed.	kg.	63.00		
	Sub total 4 carried to summary				

17. Bill of Quantities for

Landscaping Work (Planting Trees, Internal Paving, Construction of Car Park Shed and Fence for Transformer) of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
17.7.1	17.7. Plasterer 16mm thick 1:3 cement sand smooth plastering in perimeter kerb.	Sq.m	25.00		
	Sub total 5 carried to summary				
17.8.1	Chain link Fence for Transformer 17.8. Excavator Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	108.00		
17.8.2	Excavation in foundation for wall and column pits in hard/ dense soil a part return filling, ram and surplus disposed as directed.	Cu.m	7.60		
	Sub total carried to summary				
17.9.1	17.9. Concreter 1:2:4 (20 mm) cement sand mix concrete in footing	Cu.m	1.00		
	Sub total carried to summary				
17.10.1	17.10. R/R Masonary Random rubble masonry in cement and sand 1:5 mix upto D.P.C. Level.	Cu.m	7.20		
	Sub total carried to summary				
17.11.1	17.11. Fence and Gate <i>Sample should be submitted and approved by the Engineer prior to start the work.</i> PVC coated fencing Making & fixing 1 1/2" Dia (2mm thick) G.I pipe post to 6'-0" height and cutting, belding & welding as per plan and 2 coat anticorrosive & one coat emulsion painting (Rate to Include 300 mm X 300mm X 300mm 1:2:4 Concrete for placing of G.I post) and Supplying of PVC Coated 2"x2" Wire Netting (Guage 10) & fixing to fence post, frames with 1 1/2" dia G.I pipe of top and bottom including (Fixed) painting with 2 coats of anticorrosive paint. (As per Details plan)	Note L.m	 41.00		
17.11.2	Supplying and fixing of single sash door with 25 x 25mm(1") G.I heavy duty box bar & necessary accessories including cutting, welding, hinges, handle and locking arrangement with one coat of anticorrosive and two coats of enamel paint as directed.(Nets covering & Pad lock paid separately).	No	1.00		
	Sub total carried to summary				

18.BILL OF QUANTITIES FOR
SUPPLYING AND FIXING STREET LAMP OF AGROTECH PARK AT MALWATHTHA,
SEUSL.

SUMMARY		
I.No	Description	Amount / Rs.
18.0	Electrical work	
Sub Total of Civil Work		

18.Bill of Quantities for

Supplying and Fixing Street Lamp of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
18.1	18.0. Electrical work Supplying & fixing of 150W Street Lamp including 2" dia G.I pipe Arm, 2" dia G.I clip, Piecing connector and all necessary accessories.	Nos.	20.00		
	Sub total carried to summary				

19. BILL OF QUANTITIES FOR
CONSTRUCTION OF WATER TANK TOWER & SUMP OF AGROTECH PARK AT
MALWATHTHA, SEUSL.

SUMMARY

I.No	Description	Amount / Rs.
19A	Construction of Sump	
19B	Construction of Overhead Concrete Tower with Motor Room	
	Sub Total 1	

19. Bill of Quantities for

Construction of Water Tank Tower & Sump of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
19A	Construction of Sump				
	Excavation				
19A.1	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	48.10		
19A.2	Excavation for foundation of wall and column a part return filling, ram and surplus disposed as directed.	Cu.m	74.10		
	Concrete				
19A.3	1:2:4 (20 mm)cement sand mix concrete in screed and footing	Cu.m	10.50		
19A.4	1:2:4 (20mm) cement concrete in wall .	Cu.m	11.80		
19A.5	100mm thick RCC slab in 1:2:4(20) ct.concrete and reinforcement with 10mm tor steel at 125 mm centres both ways including shuttering.	Sq.m	27.90		
	Form Work				
19A.6	Form work for screed and base.	Sq.m	8.10		
19A.7	Form work in wall.	Sq.m	116.60		
	Reinforcemnet				
19A.8	Tor Steel rods reinforcemnet with bent to shape, laid in position and tied with G.I. wire as directed	kg	2,347.00		
	Plaster and Render				
19A.9	Waterproofing treatment by using flexible, polymer cement waterproofing slurry according to Manufacturers specification's("Masterseal 540"- Barralastic or equivalent approved product)(2kg/sq.m per 2 coats)	Sq.m	112.00		
19A.10	16mm thick 1:3 cement sand plastering to external wall rough finished with flooding	Sq.m	112.00		
19A.11	20mm thick 1:3 cement sand mix rendering with flooding	Sq.m	27.50		
19A.12	Supplying and fixing of Steel cover[600x600mm(2'x2')]	Nos	2.00		
	Sub total carried to summary:				

19. Bill of Quantities for

Construction of Water Tank Tower & Sump of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
19B	Construction of Overhead Concrete Tower with Motor Room				
	Excavation				
19B.1	Excavation of top layer & removing to make non vegetation area for filling, trimming, leveling and compaction of original ground/sub grade to 100% standards with level the ground after the construction as directed.	Sq.m	44.70		
19B.2	Excavation for foundation of wall and column a part return filling, ram and surplus disposed as directed.	Cu.m	13.20		
19B.3	Imported selected gravel / hard core filling under floor, watering well rammed and consolidated in 75mm layers as directed.	Cu.m	4.90		
	Concreter				
19B.4	1:2:4 (20 mm) cement sand mix concrete in screed and footing	Cu.m	3.60		
19B.5	1:2:4 (20 mm) cement concrete in floor.	Cu.m	2.00		
19B.6	1:2:4 (20 mm) cement sand mix concrete in column shaft in Ground Floor.	Cu.m	1.60		
19B.7	1:2:4 (20 mm) cement sand mix concrete in column shaft in First Floor.	Cu.m	1.30		
19B.8	1:2:4 (20 mm) cement sand mix concrete in column shaft in Second Floor.	Cu.m	1.30		
19B.9	1:2:4 (20 mm) cement sand mix concrete in column shaft in Third Floor.	Cu.m	10.10		
19B.10	1:2:4 (20 mm) concrete in Plinth Beam.	Cu.m	1.20		
19B.11	1:2:4 (20 mm) concrete in beam in 2nd floor.	Cu.m	1.20		
19B.12	1:2:4 (20 mm) concrete in beam in 3rd floor.	Cu.m	1.20		
19B.13	1:2:4 (20 mm) concrete in beam in 4th floor.	Cu.m	1.30		
19B.14	100mm thick RCC slab in 1:2:4(20) cement concrete and reinforced with 10mm tor steel at 125mm centres both ways including shuttering first floor.	Sq.m	20.40		
19B.15	100mm thick RCC slab in 1:2:4(20) ct.concrete and reinforcement with 10mm tor steel at 125mm centres both ways including shuttering in 2nd floor.	Sq.m	20.40		
19B.16	1:2:4 (20 mm) concrete in slab in Third Floor.	Cu.m	3.70		
19B.17	100mm thick RCC slab for tank top in 1:2:4(20) ct.concrete and reinforcement with 10mm tor steel at 125mm centres both ways including shuttering in 3rd floor level.	Sq.m	20.40		
19B.18	Lintol 225mm x 150mm, cement concrete 1:2:4(20), Reinforcement with 2 No. 12mm tor steel including form work in Ground Floor.	L.m	18.20		

19. Bill of Quantities for

Construction of Water Tank Tower & Sump of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
	Form Work				
19B.19	Form work for screed, footing and outside floor.	Sq.m	11.30		
19B.20	Form work in column shaft in Ground Floor.	Sq.m	24.70		
19B.21	Form work in column shaft in First Floor.	Sq.m	19.10		
19B.22	Form work in column shaft in Second Floor.	Sq.m	19.10		
19B.23	Form work in column shaft in Third Floor.	Sq.m	95.60		
19B.24	Form work in plinth beam.	Sq.m	14.50		
19B.25	Form work in beam in First Floor.	Sq.m	9.70		
19B.26	Form work in beam in Second Floor.	Sq.m	9.70		
19B.27	Form work in beam in Third Floor.	Sq.m	10.80		
19B.28	Form work in slab in Third Floor.	Sq.m	27.50		
	Reinforcemnet				
19B.29	Tor steel for footing.	Kg.	263.00		
19B.30	Tor steel for column shaft in Ground Floor.	Kg.	169.00		
19B.31	Tor steel for column shaft in First Floor.	Kg.	114.00		
19B.32	Tor steel for column shaft in Second Floor.	Kg.	114.00		
19B.33	Tor steel for column shaft in Third Floor.	Kg.	1160.00		
19B.34	Tor steel for plinth beam.	Kg.	80.00		
19B.35	Tor steel for beam in First Floor.	Kg.	80.00		
19B.36	Tor steel for beam in Second Floor.	Kg.	80.00		
19B.37	Tor steel for beam in Third Floor.	Kg.	516.00		
19B.38	Mild steel for column shaft and plinth beam in Ground Floor.	Kg.	45.00		
19B.39	Mild steel for column shaft and beams in First Floor.	Kg.	43.00		
19B.40	Mild steel for column shaft and beams in Second Floor.	Kg.	51.00		
19B.41	Mild steel for column shaft and beams in Third Floor.	Kg.	60.00		

19. Bill of Quantities for

Construction of Water Tank Tower & Sump of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
	Brick Layer (Motor Room)				
19B.42	225 mm thick brick work in cement and sand 1:5 mix in Ground Floor.	Cu.m	9.80		
	9.0 Plasterer and Renderer				
19B.43	16mm thick 1:3 cement sand plastering to external wall rough finished in Ground Floor.	Sq.m	64.10		
19B.44	16mm thick 1:3 cement sand plastering to internal wall finished and smooth in Ground Floor.	Sq.m	51.10		
19B.45	10mm thick plastering to R.C.C. beam & slab soffit in cement & sand 1:3 including floating with lime putty at First floor.	Sq.m	45.50		
19B.46	10mm thick plastering to R.C.C. beam & slab soffit in cement & sand 1:3 including floating with lime putty at Second Floor.	Sq.m	48.70		
19B.47	10mm thick plastering to R.C.C. beam & slab soffit in cement & sand 1:3 including floating with lime putty at Third Floor.	Sq.m	40.90		
19B.48	Waterproofing treatment by using flexible, polymer cement waterproofing slurry according to Manufacturers specification's (Masterseal 540 - Barralastic or equivalent approved product)(2kg/sq.m per 2 coats)	Sq.m	81.00		
19B.49	16mm thick 1:3 cement sand plastering to external wall rough finished with floating at Third Floor.	Sq.m	110.30		
19B.50	20mm thick 1:3 cement sand mix rendering in Ground Floor.	Sq.m	12.50		
19B.51	20mm thick 1:3 cement sand mix rendering in Third Floor inside of tank.	Sq.m	15.70		
	Painter and Decorator				
19B.52	Painting all walls with acrylic wall filler to external wall in Ground Floor.	Sq.m	115.20		
19B.53	Painting all wall with two coat of emulsion paint to internal including preparing surface in Ground Floor.	Sq.m	51.10		
19B.54	Painting walls with two coats of wheher shield paint to all external faces in Ground Floor.	Sq.m	64.10		
19B.55	Painting walls with two coats of wheher shield paint to all external faces in First Floor.	Sq.m	45.50		
19B.56	Painting walls with two coats of wheher shield paint to all external faces in Second Floor.	Sq.m	48.70		
19B.57	Painting walls with two coats of wheher shield paint to all external faces in Third Floor.	Sq.m	40.90		
19B.58	Painting two coats of enamel paint to out side of water tank including washing clearing and smoothing down with sand paper.	Sq.m	65.60		

19. Bill of Quantities for

Construction of Water Tank Tower & Sump of AgroTech Park at Malwaththa, SEUSL.

Item	Description	Unit	Qty.	Rate	Amount
	Aluminium work (Motor Room)				
19B.59	Supplying and fixing 100mm Natural or Brownzed aluminium single sash butt hinged openable door with louvers with middle rail and fully aluminium cladding sheet, neoprene and wooleed beading, gaskets, pop rivots, threaded bar with nut and approved quality lock, butt hinges, door handle with cap nut.	Sq.m	2.20		
19B.60	Supplying and fixing Natural aluminium 41mm casement window with louvers on top, consisting of 5mm thick tinted glass panes, casement lock, screws, pop rivots, gaskets,hinges, weather strip etc. (2 Sashes)	Sq.m	5.40		
19B.61	Supplying and fixing steel ladder	P.S	Allow	Sum	100,000.00
	Plumbing Work				
19B.62	Supplying and laying 90mm(3") dia 1000 type P.V.C. pipe with necessary fittings for discharge water.	L.m	326.00		
19B.63	Supplying and laying 63mm(2") dia 1000 type P.V.C. pipe with necessary fittings for discharge water.	L.m	160.00		
19B.64	Supplying and fixing of 90mm(3") dia. PVC ball valve with necessary fittings.	Nos	3.00		
19B.65	Supplying and fixing of Steel cover[600x600mm(2'x2')]	Nos	2.00		
	Electrical Work				
19B.66	Supplying and Fixing centric water pump with 5 HP, 63mm(2") suction, delivery as directed.	No	2.00		
19B.67	Supplying and fixing of Distribution board with accessories ,DOL starter, Foot valve, floater valve and internal wiring as directed.	P.S	Allow	Sum	70,000.00
19B.68	Supplying & Fixing of flourscent lamp 4'-0" with wiring (1 years warranty).	No.	3.00		
19B.69	Supplying and fixing 2" Dia, 6' long G.I. Pipe as earth electrode.	Nos.	1.00		
	Sub total carried to summary:				

Infrastructure Developmnt of AgroTech Park at Malwaththa, SEUSL.

DAY WORK SCHEDULE

I.No	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
D.1	Labourer - un skilled	hours	50.00		
D.2	Labourer- skilled	hours	30.00		
D.3	Bar bender	hours	20.00		
D.4	Mason	hours	30.00		
D.5	Carpenter/Joiner	hours	30.00		
D.6	Plumber/Pipe fitter	hours	20.00		
D.7	Plasterer/Tile fixer	hours	20.00		
D.8	Painter	hours	30.00		
D.9	Plant Operator	hours	20.00		
D.10	Electrician	hours	20.00		
D.11	Aluminum fabricator	hours	20.00		
D.12	Tor steel	Kg	200.00		
D.13	Mild steel	Kg	100.00		
D.14	Cement (50 kg)-Brand	Bag	20.00		
D.15	Weather shield paint - CIC or equivalent	Liter	20.00		
D.16	Emulsion Paint - CIC or equivalent	Liter	20.00		
D.17	Enamel paint - CIC or equivalent	Liter	10.00		
D.18	Brick (1000 nr)	Item	1.00		
D.19	Ply wood 12mm thick 4'x8'-black coated	Nos.	5.00		
D.20	Ply wood 15mm thick 4'x8'-black coated	Nos.	5.00		
D.21	River sand	m3	10.00		
D.22	20mm aggregate(granite)	m3	10.00		

Infrastructure Developmnt of AgroTech Park at Malwaththa, SEUSL.

DAY WORK SCHEDULE

I.No	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
D.23	Air compressor (125 cubic feet) any type of drive, including fuel, water, all consumable stocks, spares, hoses and jack hammers.	hours	20.00		
D.24	Concrete mixer, closed drum with hopper any type of drive, fuel and all consumable stocks and spares, capacity	hours	20.00		
D.25	Motor lorry, including fuel, all consumable stocks and spares, capacity 3	hours	20.00		
D.26	Welding machine including all consumable stocks and spares single operator 400 amps.	hours	20.00		
D.27	Backhoe Loader (capacity 2.4m3)	hours	20.00		
D.28	Jack hammer (capacity...2"....) -	hours	30.00		
Total for Day works carried to summary					