

**DETAILED DRAWING  
AND  
DETAILED ESTIMATE  
OF  
SCREEN HOUSE  
FOR  
MOTHER PLANT  
(AREA- 191.7944 SQ.M)**



Screen House For Mother Plant						
S.N.	Description of works	Unit	Rate	Quantity	Amount	Remarks
1	Site Clearance including cutting Shrubs removing trees etc all complete	m <sup>2</sup>	17.25	251.85	4,344.41	
2	Earthwork excavation in foundation in soft and hard soils including disposal upto 10m lead and 1.5m lift	m <sup>3</sup>	618.00	11.61	7,174.98	
3	Dry Brick Soling work in foundation and plinth	m <sup>2</sup>	957.79	179.06	171,501.88	
4	75mm thick PCC work in 1:3:6 in foundation and plinth including lead upto 30m	m <sup>3</sup>	12537.50	14.33	179,662.38	
5	RCC works in 1:1.5:3 in superstructure	m <sup>3</sup>	17605.08	4.57	80,455.22	
6	Reinforcement work (TMT Fe-500) cutting, bonding, placing all complete	MT	122065.60	0.55	67,136.08	
7	Providing and fixing Wooden or Steel form work for for all kinds of R.C.C. works and its removal all complete as per instruction of site incharge.	m <sup>2</sup>	556.03	39.79	22,124.43	
8	Brick work in 1:6 C/S mortar all complete	m <sup>3</sup>	13606.03	3.87	52,655.34	
9	Brick work in 1:4 C/S mortar all complete	m <sup>2</sup>	14045.93	3.87	54,357.75	
10	Providing and filling earth material laying in 15 cm layer, spray water with compaction all complete as per instruction of the site incharge	m <sup>3</sup>	376.75	5.81	2,188.92	
11	38mm thick cement concrete flooring work all complete(1:2:4)	m <sup>2</sup>	660.81	149.20	98,592.85	
12	12.5mm thick C/S plaster in 1:4 in floor all complete	m <sup>2</sup>	377.11	63.39	23,905.00	
13	Making and fixing black iron truss post with primer paint all complete	Kgs.	131.26	4048.42	531,395.61	
14	200 micron U.V. stabilized Polyethylene sheet roofing with aluminum profile & zig-zag spring all complete	m <sup>2</sup>	140.00	398.46	55,784.40	
15	Providing and fixing Aphid proof mesh net with stainless steel Aphid mesh in 90 series for window. (Section thickness 1 mm)	m <sup>2</sup>	2022.88	272.55	551,335.94	
16	Supplying and fitting Aluminium sliding Door 2 track section of (88 x38x1.3)mm & 5mm glass.	m <sup>2</sup>	5380.00	17.08	91,890.40	
17	Supplying and fitting Aluminium Fixed section of (88 x38x1.3)mm & 5mm glass.	m <sup>2</sup>	5380.00	7.71	41,479.80	
				Subtotal	2,035,985.39	
				User's Contribution	1,017,992.70	
				Budget Allocated By Office	1,017,992.70	
				2.5% contingency	25,449.82	
				Grand Total	2,061,435.21	

**Note:**

1. The Rate is taken from Kathmandu District rate 077/078 and is applicable for Kathmandu district only.
2. 13% VAT is included in required materials.
3. 50% financing is done by National Centre for Fruit Development and 50% by the User.

Prepared by:



Engineering Consultancy Pvt Ltd  
Kirtipur, Maltrinagar-2

Checked by:

*Ramesh*  
**Agri. Engineer**

Approved by:



Screen House For Mother Plant								
S.N.	Particulars	Nos.	Length(m)	Breadth(m)	Height(m)	Quantity	Unit	Remarks
1	Site Clearance	1.00	18.25	13.80		251.85	m <sup>2</sup>	
2	<b>Earthwork excavation in foundation</b>							
	Column Section	24.00	0.56	0.56	0.65	4.89		
	Long Wall	2.00	16.24	0.46	0.30	4.48		
	Short Wall	2.00	11.81	0.46	0.30	3.26		
	Deduction for column portion in Long and Short Wall	16.00	0.46	0.46	0.30	1.02		
					<b>Total</b>	<b>11.61</b>	m <sup>3</sup>	
3	<b>One layer flat Brick soling in foundation</b>							
	Column Section	24.00	0.56	0.56		7.53		
	Long Wall	2.00	16.24	0.46		14.94		
	Short wall	2.00	11.81	0.46		10.87		
	Below Plinth	1.00	16.01	11.58		185.40		
	Deduction for column portion in Long and Short Wall	16.00	0.46	0.46		3.39		
	Deduction for plantation area from below Plinth	20.00		0.76		36.29		Radius=0.76 m
					<b>Total</b>	<b>179.06</b>	m <sup>2</sup>	
4	<b>75mm th. PCC work in foundation</b>							
	Column Section	24.00	0.56	0.56	0.08	0.60	m <sup>3</sup>	
	Long Wall	2.00	16.24	0.46	0.08	1.20		
	Short wall	2.00	11.81	0.46	0.08	0.87		
	3" thick PCC in Plinth	1.00	16.01	11.58	0.08	14.83		
	Deduction for column portion in Long and Short Wall	16.00	0.46	0.46	0.08	0.27		
	Deduction for plantation area from plinth	20.00		0.76	0.08	2.90		Radius=0.76 m
					<b>Total</b>	<b>14.33</b>	m <sup>3</sup>	
5	<b>RCC work in 1:1.5:3 for foundation</b>							
	Bottom	24.00	0.46	0.46	0.52	2.64	m <sup>3</sup>	
					<b>Total</b>	<b>2.64</b>	m <sup>3</sup>	
	<b>RCC work for Tie-Band (1:1.5:3)</b>							
	Long Wall	2.00	16.24	0.23	0.15	1.12	m <sup>3</sup>	
	Short wall	2.00	11.81	0.23	0.15	0.81		
					<b>Total</b>	<b>1.93</b>	m <sup>3</sup>	
6	<b>Reinforcement works TMT-Fe-415</b>	1.00	4.57	0.015	0.07	549.50	Kgs.	
	"@" 1.5% of RCC Quantity including laps, anchorage wastages				<b>Total</b>	<b>0.55</b>	MT	
7	<b>Formwork for Tie-Band/ Foundation</b>							
	IN FOUNDATION ( RCC Works)	96.00	0.46		0.52	22.96	m <sup>2</sup>	
	In Tie Band							
	IN SILL/LINTEL LEVEL	4.00	16.24		0.15	9.74	m <sup>2</sup>	
		4.00	11.81		0.15	7.09	m <sup>2</sup>	
					<b>Total</b>	<b>39.79</b>	m <sup>2</sup>	
8	<b>Brickwork in 1:6 C/S Mortar(230 mm</b>							
	Below Ground Level							
	Long Wall	2.00	16.24	0.23	0.30	2.24	m <sup>3</sup>	
	Short wall	2.00	11.81	0.23	0.30	1.63		
					<b>Total</b>	<b>3.87</b>	m <sup>3</sup>	
9	<b>Brickwork in 1:4 C/S Mortar(230 mm</b>							
	Thi.)							
	Above Ground Level							
	Long Wall	2.00	16.24	0.23	0.30	2.24	m <sup>3</sup>	
	Short wall	2.00	11.81	0.23	0.30	1.63		
					<b>Total</b>	<b>3.87</b>	m <sup>3</sup>	
10	<b>Earthwork in filling</b>							
	filling in foundation trench							
	50% of excavation					5.81	m <sup>3</sup>	

Prepared By:



Checked By:

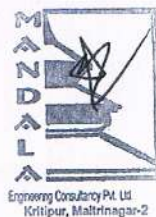
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ASST.

Approved By:



Screen House For Mother Plant								
S.N.	Particulars	Nos.	Length(m)	Breadth(m)	Height(m)	Quantity	Unit	Remarks
					<b>Total</b>	<b>5.81</b>	<b>m<sup>3</sup></b>	
11	<b>38mm thick Screeding work in 1:2:4</b>							
	Plinth	1.00	18.01	11.58		185.40	m <sup>2</sup>	
	Deduction for Plantation area	20.00		1.81		36.20		Area=1.81 m2
					<b>Total</b>	<b>149.20</b>	<b>m<sup>2</sup></b>	
12	<b>12.5mm thick plaster (1:4)</b>							
	Long Wall	2.00	16.24	1.13	-	36.70		
	Short wall	2.00	11.81	1.13	-	26.69		
					<b>Total</b>	<b>63.39</b>	<b>m<sup>2</sup></b>	
13	<b>Truss Work</b>							
	80x80x4mm Post at Edges	12.00			5.00	60.00	m	
					<b>Total</b>	<b>60.00</b>		
						580.26	Kgs.	
	80x80x4mm Post at Middle	12.00			5.00	60.00	m	
					<b>Total</b>	<b>60.00</b>		
						580.26	Kgs.	
	Plates (250*250*6)	48.00				112.80	Kgs.	foundation and rafter joint
	<b>For 1 truss</b>							
	Rafters							
	50 mm .Ms SHS	1.00	28.99	4.45		129.01		
	Ties/Struts- 50mm Ms SHS	1.00	15.91	4.45		70.80		
						199.81		
						1198.86	Kgs.	
	<b>For 6 Truss sections</b>							
	length wise tie 50*50 mm	4.00	16.24	4.45		289.07		
	outer intermediate tie	2.00	16.24	4.45		144.54		
		2.00	11.81	4.45		105.11		
	Purlins-38mm Ms SHS	22.00	18.00	2.62		1037.52		
					<b>Subtotal</b>	<b>4048.42</b>	<b>Kgs.</b>	
					<b>Total</b>	<b>4048.42</b>	<b>Kgs.</b>	
14	<b>200 micron U.V. stabilized Polyethylene sheet roofing with aluminum profile &amp; zig-zag spring all complete</b>							
		1.00	23.28	15.56	-	398.46	m <sup>2</sup>	
15	<b>Aluminium section with aphid proof mesh net</b>							
	Long Wall	2.00	16.25	4.50	-	146.25	m <sup>2</sup>	
	Short wall	2.00	11.81	4.50	-	106.29		
	In Roof	1.00	16.24	0.51	-	8.28		
		1.00	6.78	1.12	-	7.59		
		1.00	6.78	0.61	-	4.14		
					<b>Total</b>	<b>272.55</b>	<b>m<sup>2</sup></b>	
16	<b>Sliding Gate Section</b>	2.00	3.50	2.44	-	17.08	m <sup>2</sup>	
17	<b>Fixed Aluminium Section</b>	2.00	1.58	2.44		7.71	m <sup>2</sup>	

Prepared By:



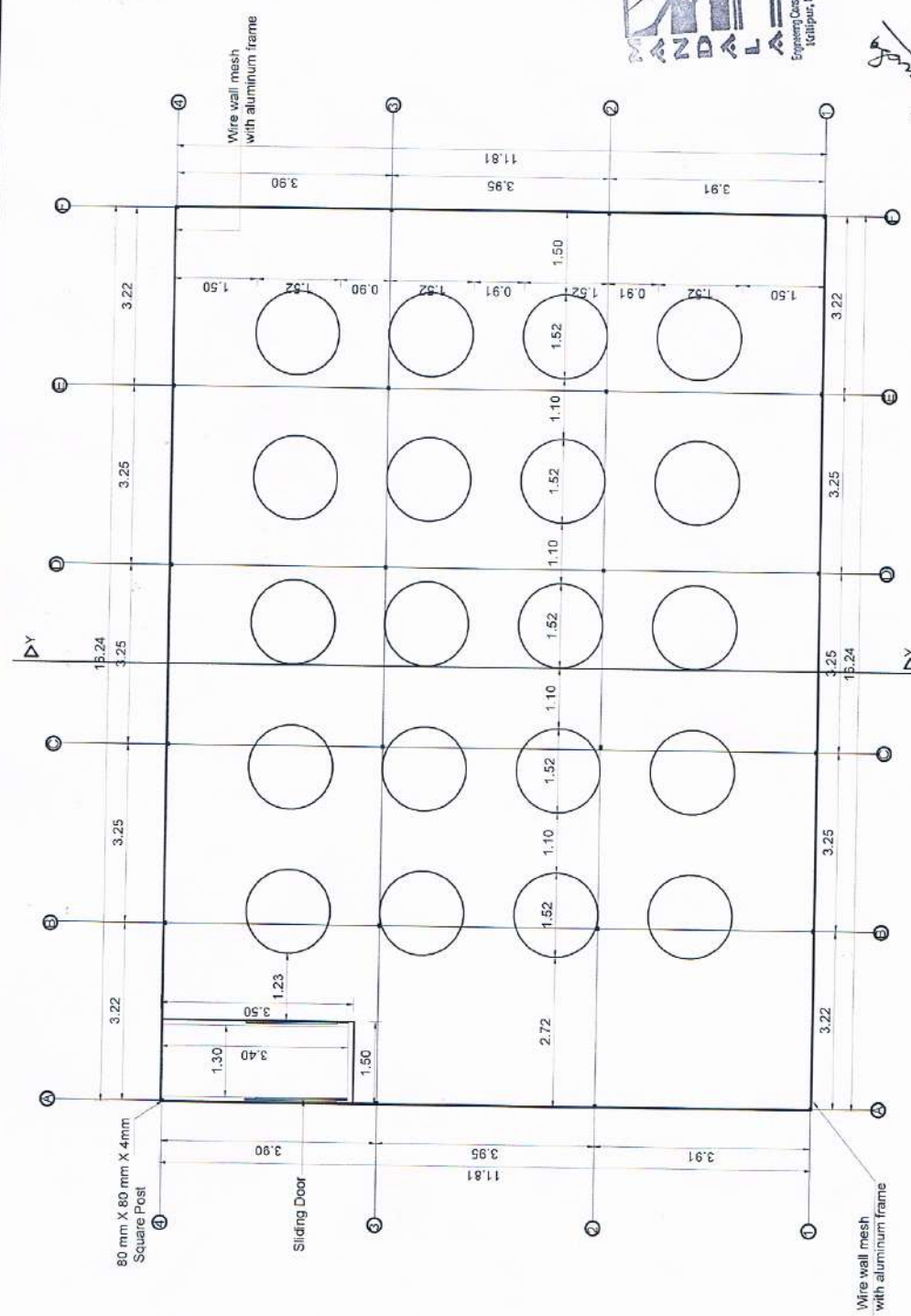
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A.H. Engineer

Approved By:

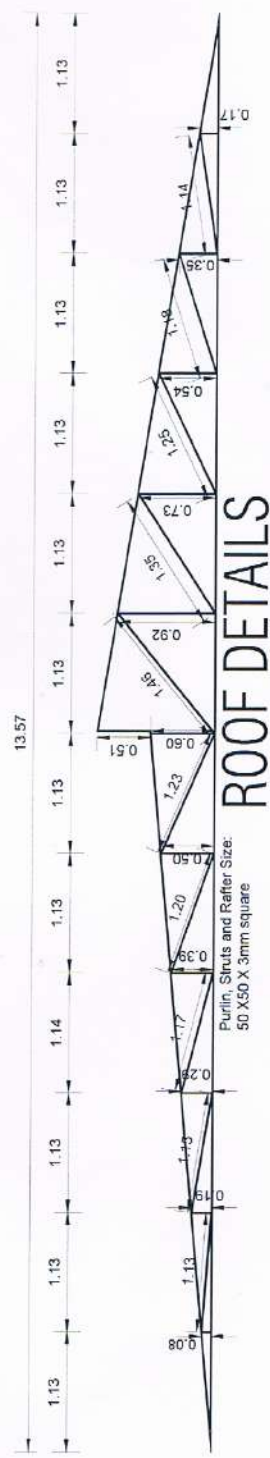


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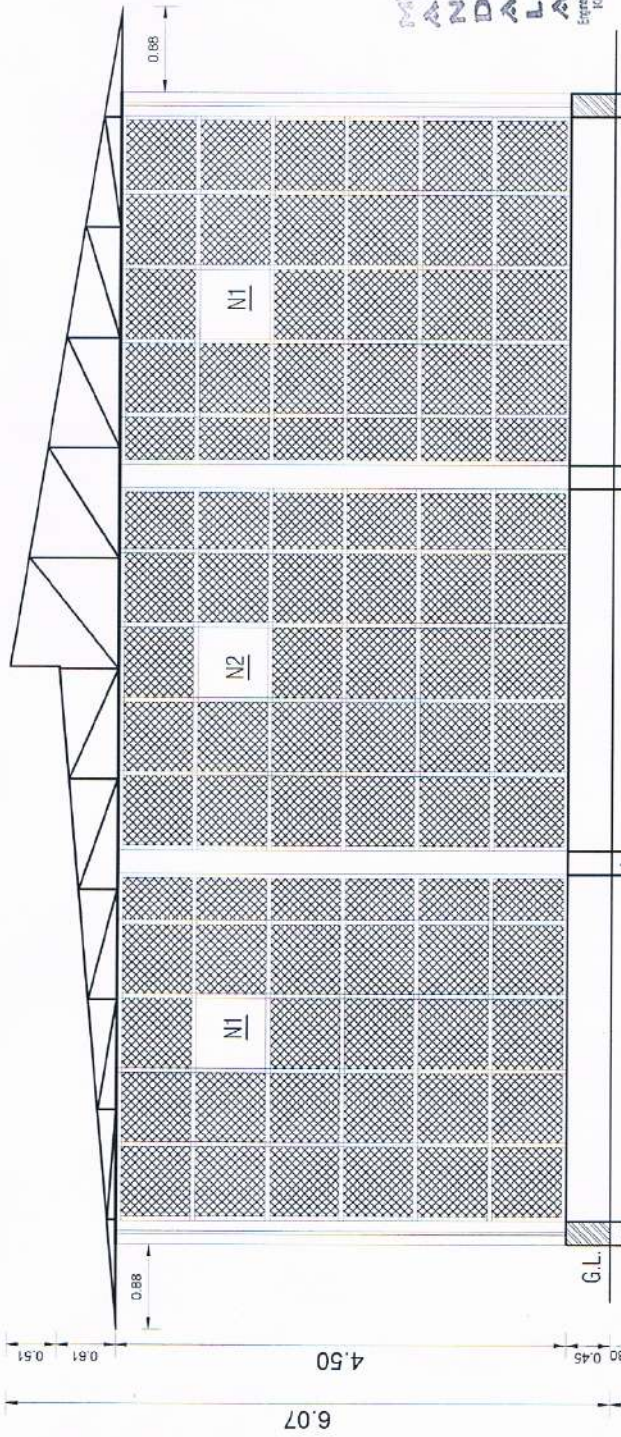


Screen House Plan for Mother Plant  
Area: 191.7944 sq.m

<b>MANDALA ENGINEERING CONSULTANCY PVT. LTD.</b> KABBALANUR E-mail: mandalac@rediffmail.com Contact: 9851167255, 9851160777	CLIENT: National Centre for Fruit Development	PROJECT: POLY HOUSE DESIGN	TITLE: PLANT SCHEDULE, ELEVATIONS, DETAILS DRAWINGS	DESIGNED BY: SHRADHA DOTEI	SIGNATURE & DATE:
	PROJECT: POLY HOUSE DESIGN	TITLE: PLANT SCHEDULE, ELEVATIONS, DETAILS DRAWINGS	CHECKED BY: Anilish Barma (KAP)	DATE: 08/09/2020 REV. NO./DATE DWG. NO. 1 SHEET NO.	DATE: 08/09/2020 REV. NO./DATE DWG. NO. 1 SHEET NO.



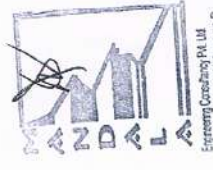
# ROOF DETAILS



RCC works in 1:1.53

## Section at Y-Y

- Tie Band
- RCC works in 1:1.53
- 75mm Thick PCC
- 1 layer Flat Brick Salling
- Well Rammed Earth



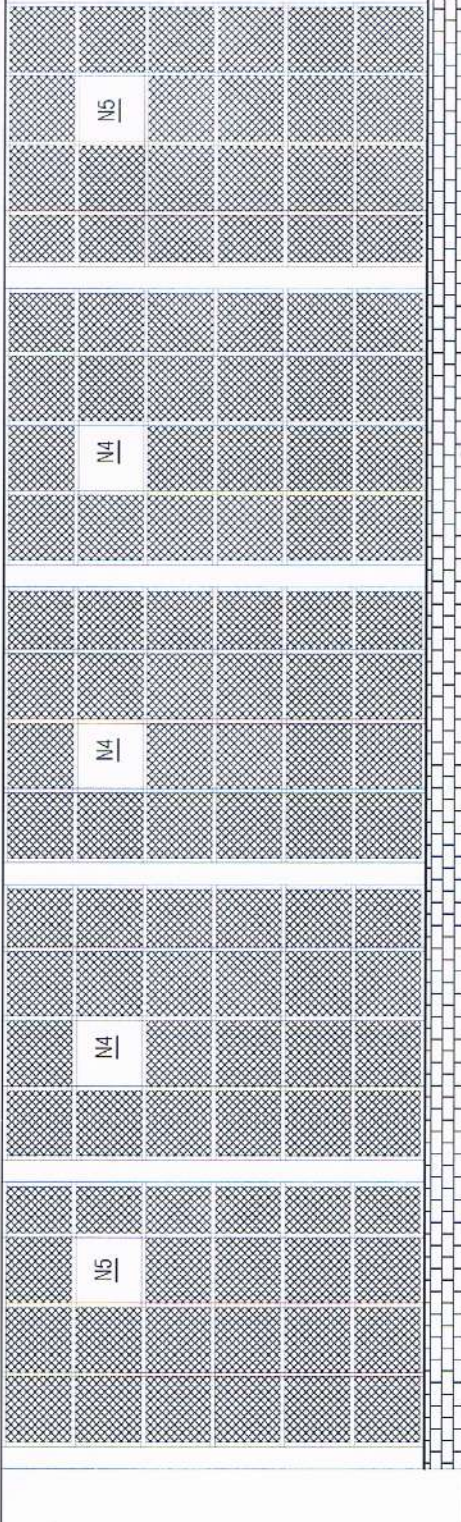
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Agril. Engineers



<b>MANDALA ENGINEERING CONSULTANCY PVT. LTD.</b> RAJBHAWAN, KATHMANDU E-mail: mandalaconsultancy2@gmail.com Contact: 9851187285, 9851188777	CLIENTE: National Centre for Insect Development	DESIGNED BY: SHRADHA DOTEL	SIGNATURE & DATE: DATE: 08/09/2020
	PROJECT: NALY HOUSE DESIGN	CHECKED BY: Ashish Barua Kattel	REV. NO./DATE: DWG. NO. SHEET NO.
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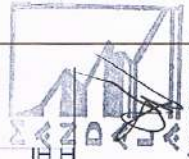


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# North Elevation

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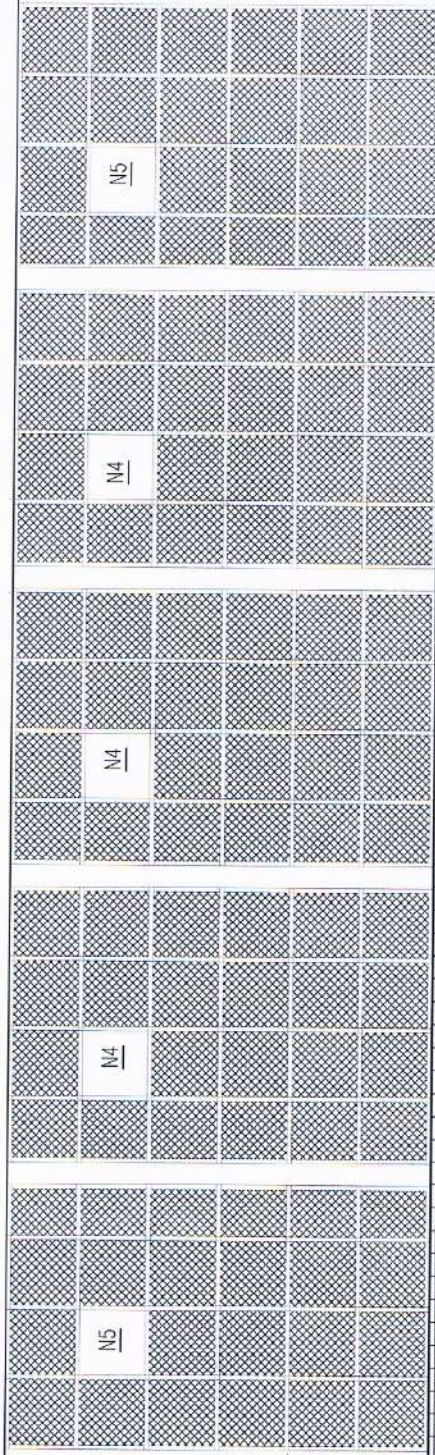
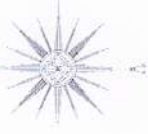
Engineering Consultancy Pvt. Ltd  
Kirtipur, Bangalore-2

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**Asst. Engineer**

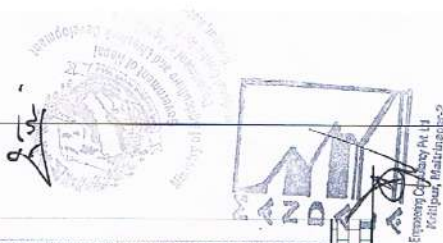


<b>MANDALA ENGINEERING CONSULTANCY PVT. LTD.</b> RABBIHAWAN, KAITHMANDU E mail: mandalaconsultancy2@gmail.com Contact: 9851167255, 9851160977	CLIENT: National Centre for Child Development	SITE :	SCALE: NTS
	PROJECT: POLY HOUSE DESIGN	TITLE : PLAN, SECTION, ELEVATION, DETAIL DRAWINGS	DESIGNED BY : DRAWN BY : CHECKED BY : APPROVED BY :
		SIGNATURE & DATE	
		SHRADHA DOTEL Ashish Kumar Kattel	

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# South Elevation

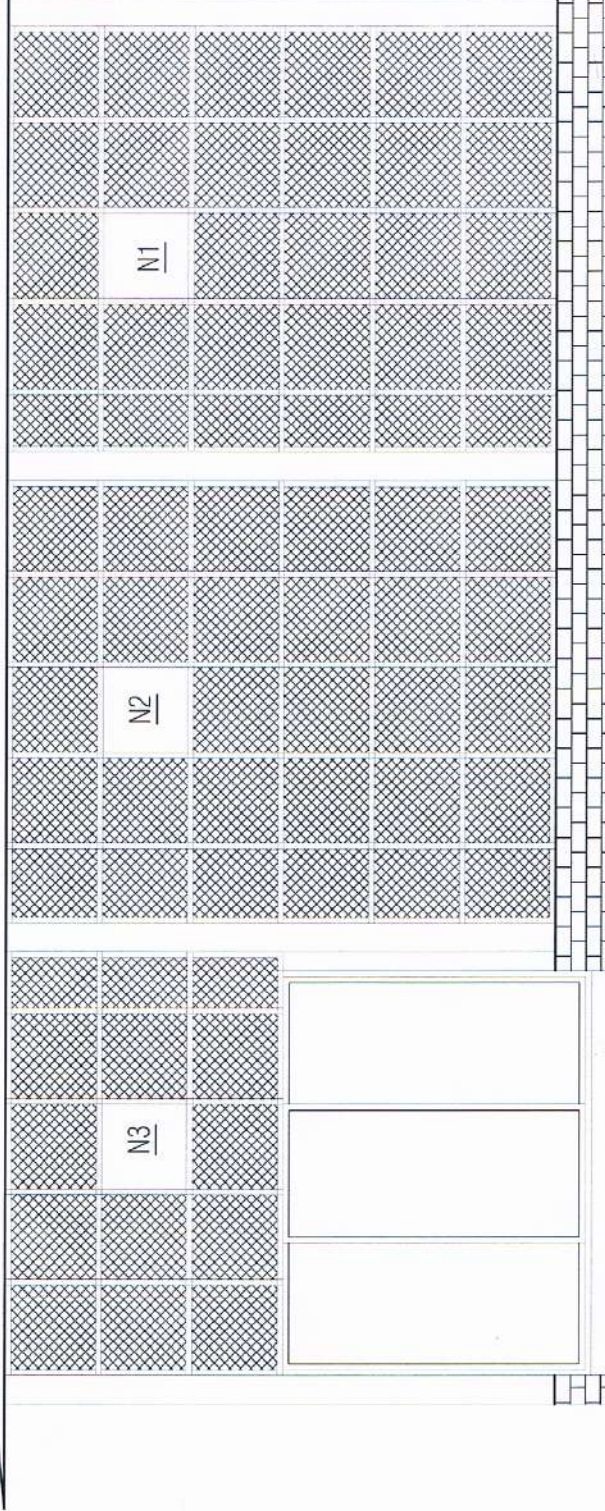
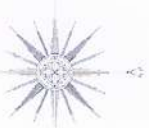


<b>MANDALA ENGINEERING CONSULTANCY PVT. LTD.</b> RABHAWAN, KATHMANDU E-mail: mandalaconsultancy2@gmail.com Contact: 981147245, 9861160977	CLIENT: National Centre for Urban Development	SITE :	SCALE: NIS
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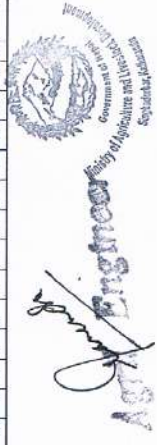
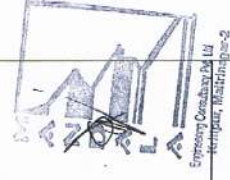




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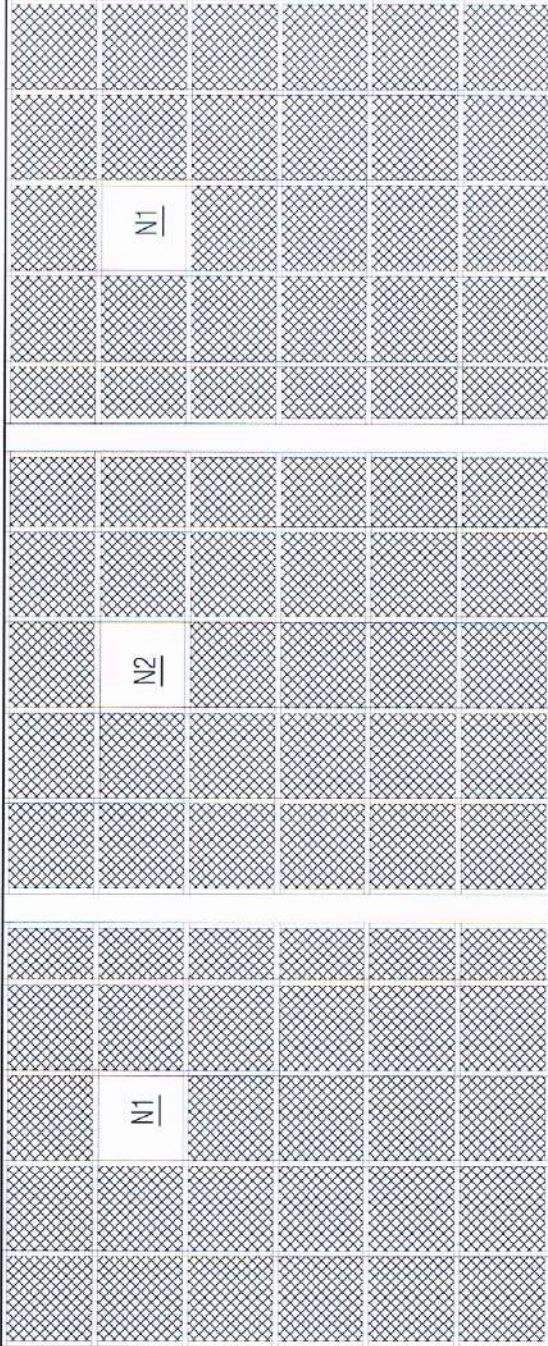
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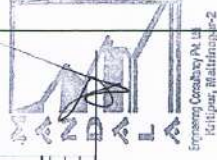
<b>MANDALA ENGINEERING CONSULTANCY PVT. LTD</b> 8A BAHADUR NAGAR E-mail: mandalaconsultancy2@gmail.com Contact: 9851147245, 9851150977	CLIENT: National Centre For Fruit Development	SITE	DESIGNED BY: DRAWN BY: CHECKED BY: APPROVED BY:	SIGNATURE & DATE    	SCALE: NTS DATE: 08/09/2020 REV. NO./DATE DWG. NO. SHEET NO.
	PROJECT: PULP HOUSE DESIGN	TITLE: PLAN, SECTION, ELEVATION, DETAIL DRAWINGS	SHIRADDA HOTEL Ashish Kumar Kattel	ASHISH KUMAR KATTEL 08/09/2020	ASHISH KUMAR KATTEL 08/09/2020



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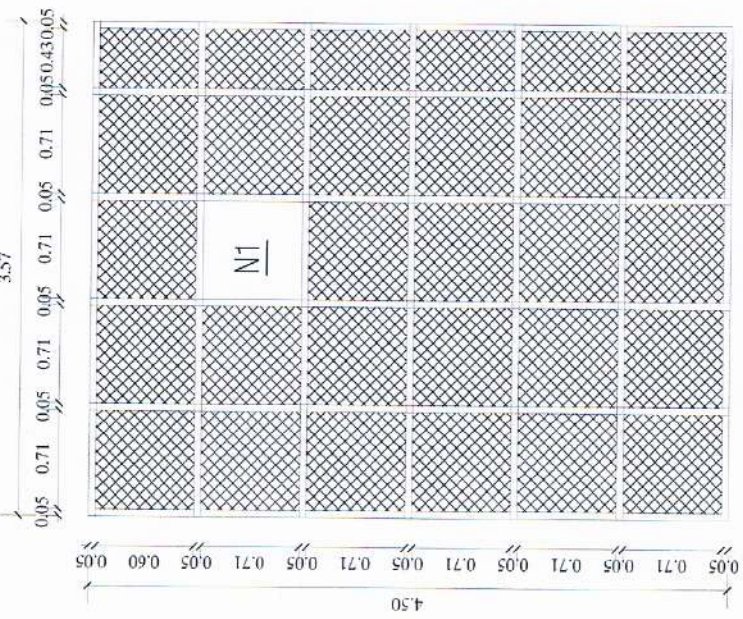
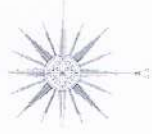


# East Elevation

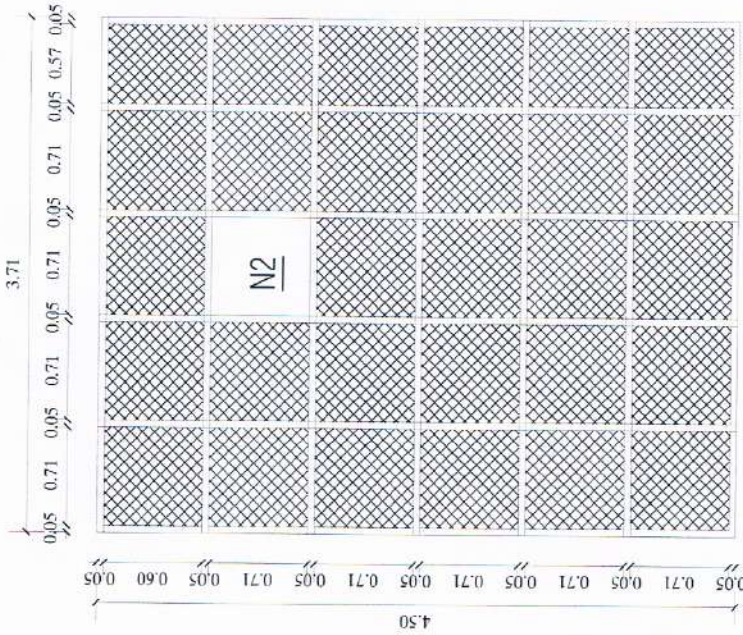
<b>MANDALA ENGINEERING CONSULTANCY PVT. LTD.</b> RABHAWAN, KATHMANDU E-mail: mandalaconsultancy2@gmail.com Contact: 9851147245, 9851160977	CLIENT: Sagauli Centre, POC Fruit Development	SITE:	DESIGNED BY: DRAWN BY: CHECKED BY: APPROVED BY:	SIGNATURE & DATE DATE: 06/09/2020 REV. NO./DATE DWG. NO. SHEET NO.
	PROJECT: JULY HOUSE DESIGN	TITLE: PLAN, SECTION, ELEVATION, DETAIL DRAWINGS	SHRADHA DOTEL Ashish Barma Kattel	APPROVED BY:



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Net (N1)



Net (N2)

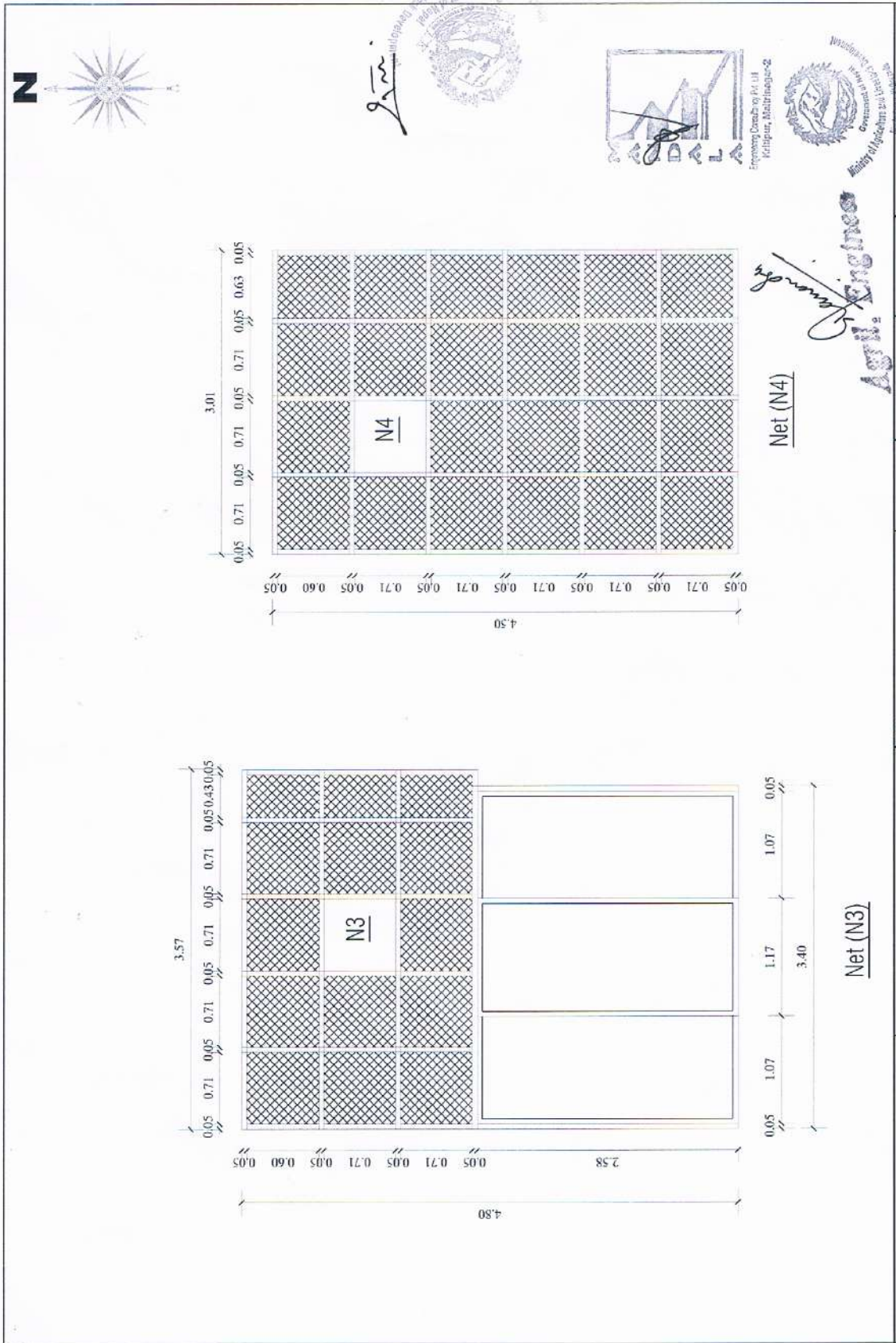


Signature



Signature

<p><b>MANDALA ENGINEERING CONSULTANCY PVT. LTD.</b>          Plot No. 20          E-mail: mandalaconsultancy@gmail.com          Contact: 9851167255, 985116977</p> 	<p>CLIENT: National Centre For Fruit Development</p> <p>PROJECT: TOWN HOUSE DESIGN</p>	<p>SITE</p> <p>TITLE PLAN, SECTION, ELEVATION, DETAIL DRAWINGS</p>	<p>DESIGNED BY:</p> <p>DRAWN BY:</p> <p>CHECKED BY:</p> <p>APPROVED BY:</p>	<p>SHRADDHA DATIEL</p> <p>Radhika Barma Kattel</p>	<p>SIGNATURE &amp; DATE</p> <p>DATE: 08/09/2020</p> <p>REV. NO. (DATE)</p> <p>DWG. NO.:</p> <p>SHEET NO.:</p>
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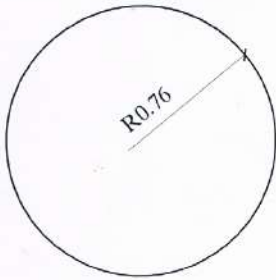
<b>MANDALA ENGINEERING CONSULTANCY PVT. LTD.</b> PABIRHAWAN, KATHMANDU Email: <a href="mailto:me@mandala.com">me@mandala.com</a> Contact: 9851167255, 9851150977	<b>CLIENT:</b> National Centre for Fruit Development	<b>SITE</b>	<b>DESIGNED BY:</b> SHRAODHA DOTEL	<b>SIGNATURE &amp; DATE</b>	<b>SCALE:</b> NTS <b>DATE:</b> 08/05/2020
	<b>PROJECT:</b> POLY HOUSE DESIGN	<b>TITLE:</b> PLAN, SECTION, ELEVATIONS, DETAIL DRAWINGS	<b>DRAWN BY:</b> ASHIS BATHIA SAHIL	<b>REV. NO. / DATE:</b>	<b>DWG. NO.:</b>



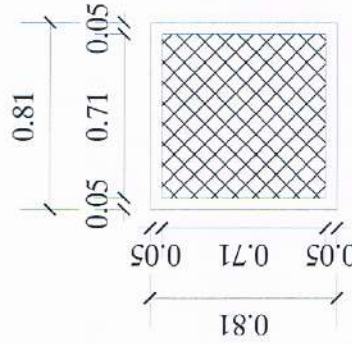
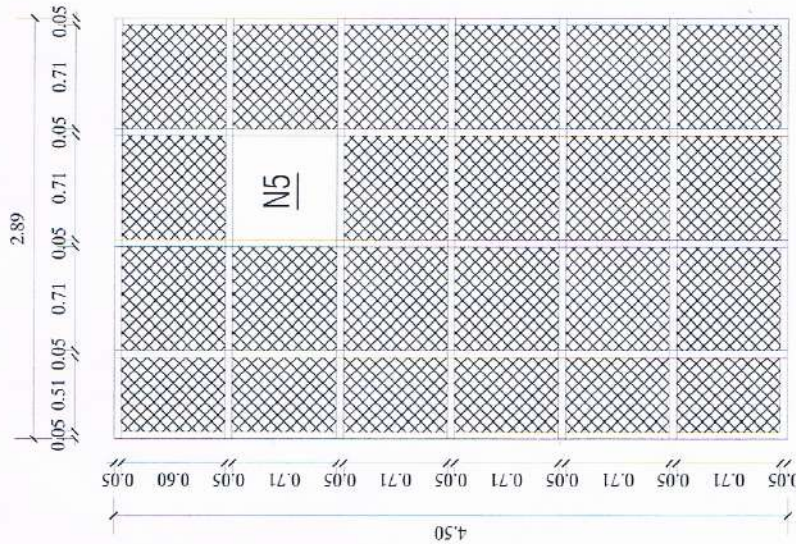
Net (N4)

Net (N3)

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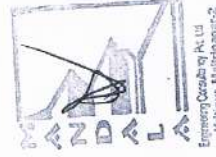
Area required for a single plant  
 Area: 1.81 sq.m



Size of a single net

Net (N5)

*g...*



*Agili Anshu*



<b>MANDALA ENGINEERING CONSULTANCY PVT. LTD</b> BAHADUR KAHMAMU E-mail: mandalaconsultancy2@gmail.com Contact: 985167255, 985150977	CLIENT: National Centre For Fruit Development	SITE	SIGNATURE & DATE	SCALE: NTS
	PROJECT: MULTI-USE DESIGN	TITLE: PLAN, SECTION, ELEVATION, DETAIL DRAWINGS	DESIGNED BY: DRAWN BY: CHECKED BY: APPROVED BY:	DATE: 08/09/2020 REV. NO./DATE: DWG. NO.: SHEET NO.:



Screen House For Mother Plant				
S.N.	Description of works	Unit	Rate	Remarks
1	Site Clearance including cutting Shrubs removing trees etc all complete	m <sup>2</sup>	17.25	
2	Earthwork excavation in foundation in soft and hard soils including disposal upto 10m lead and 1.5m lift	m <sup>3</sup>	618.00	
3	Dry Brick Soling work in foundation and plinth	m <sup>2</sup>	957.79	
4	75mm thick PCC work in 1:3:6 in foundation and plinth including lead upto 30m	m <sup>3</sup>	12,537.50	
5	RCC works in 1:1.5:3 in superstructure	m <sup>3</sup>	17,605.08	
6	Reinforcement work (TMT Fe-500) cutting, bending, placing all complete	MT	122,065.60	
7	Providing and fixing Wooden or Steel form work for for all kinds of R.C.C. works and its removal all complete as per instruction of site incharge.	m <sup>2</sup>	556.03	
8	Brick work in 1:6 C/S mortar all complete	m <sup>3</sup>	13,606.03	
9	Brick work in 1:4 C/S mortar all complete	m <sup>2</sup>	14,045.93	
10	Providing and filling earth material laying in 15 cm layer, spray water with compaction all complete as per instruction of the site incharge	m <sup>3</sup>	376.75	
11	38mm thick cement concrete flooring work all complete(1:2:4)	m <sup>2</sup>	660.81	
12	12.5mm thick C/S plaster in 1:4 in floor all complete	m <sup>2</sup>	377.11	
13	Making and fixing black iron truss pipe with primer paint all complete	Kgs.	131.26	
14	200 micron U.V. stabilized Polyethylene sheet roofing with aluminum profile & zig-zag spring all complete	m <sup>2</sup>	140.00	
15	Providing and fixing Aphid proof mesh with stainless steel Aphid mesh in 90 series for sliding window. (Section thickness 1 mm)	m <sup>2</sup>	2,022.88	
16	Supplying and fitting Aluminium sliding Door 2 track section of (88 x38x1.3)mm & 5mm glass.	m <sup>2</sup>	5,380.00	
17	Supplying and fitting Aluminium Fixed section of (88 x38x1.3)mm & 5mm glass.	m <sup>2</sup>	5,380.00	

**Note:**

- 1.The Rate is taken from Kathmandu District rate 077/078 and is applicable for Kathmandu district only.
2. 13% VAT is included in required materials.

Prepared by:



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Checked By:

*Jamunda*  
Agrl. Engineer

Approved By:

*Jamunda*

