

ESTIMATE

Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

Estimated Cost of Works (Rs.) :- 4053217.00

Rupees forty lakhs fifty-three thousand two hundred seventeen and paise nil only



SAI CONSULTANT'S

Consulting Civil Engineer, Builders & Developers,
Approved Valuers, Chartered Engineer & Govt. Contractors.

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Ref no.

Date:-

Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

RECAPITULATION SHEET

1	S.W. I - W.H.Building	Rs.	2742192.00
2	S.W. II - Internal Bituminous roads	Rs.	447920.00
3	Add Royalty WH + Road	Rs.	173259.82
4	Add Testing Charges	Rs.	79820.00
5	Add.18.00 % GST W.H. Building	Rs	493595.00
	A) Total Rs.		3936786.82
6	Add. 1.00 % Insurance on Part A	Rs.	39368.00
	Total Rs.		3976154.82
7	Sub Work No:-III Electrification	Rs.	65307.00
	Total Rs.		65307.00
8	Add.18.00 % GST On Electrical Work	Rs	11755.00
	B) Total Rs.		77062.00
	Grand Total (A+B) Rs.		4053216.82
	Say Rs.		4053217.00

Rupees forty lakhs fifty-three thousand two hundred seventeen and paise nil only


Chartered Engineer
Gaurav Rajendra Bhaskar
B.E.(Civil) A.M.I.E.
Chartered Engineer
AM3023322


Consulting Engineer
SAI CONSULTANT
Consulting Civil Engineer
Rahuri, Dist. Ahmednagar



Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

S.W. I - W.H.Building

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
47.71	1	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m.beyond the building area & stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering Including shoring and strutting etc. complete. (LIFT UPTO 1.5 M.) By Mechanical Means	207.00	Cubic Metre	9875.97
30.65	2	Excavation for foundation in Hard murum in cluding removing the excavated material upto adistance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means	284.00	Cubic Metre	8704.60
46.86	3	Providing dry trap/ granite/ quartzite/ gneiss rubble stone soiling 15 cm to 20 cm thick including hand packing and compacting complete. Spec.No. : Bd.A.12 Page No. 264 ;	1765.18	Cubic Metre	82716.33
78.36	4	Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layersincluding watering and compacting etc. complete.	120.00	Cubic Metre	9403.20
48.81	5	Filling in plinth and floors with contractors material/ brought from outside and approved by Engineer in charge in layers of 15 cm to 20 cm including watering and compaction etc.complete.	1047.22	Cubic Metre	51114.81
3.07	6	Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)	2423.19	Cubic Metre	7439.19
20.38	7	Providing and laying Cast in situ/ Ready Mix cement concrete in M-10 of trap/granite/quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete ,with fully automatic microprocess or base dPLCwith SCADA enable dreversible Drum Type mixer/ concrete Batch mix plant (Panmixer) etc.complete. With fine aggregate (Crushed sand VSI Grade)	6271.09	Cubic Metre	127804.81



Quantity	I.No	Item of work	Rate	unit	Amount
9.08	8	Providing and laying in situ cement concrete of M-25 grade of trap / granite/quartzite/gneiss metal for R.C.C. work like raft, grillages, strips, foundations and footings of R.C.C.columns and steel stanchions including bailing-out water manually, including centering formwork of plywood / steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc complete. (Excluding reinforcement) The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. (Wooden planks / shuttering will not be allowed) Spec.No.:Bd.F.2 Page No. 298 /IS 456 (1978)	7719.90	Cubic Metre	70096.69
7.35	9	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	14399.90	Cubic Metre	105839.27
14.07	10	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction and roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	12869.24	Cubic Metre	181070.21



Quantity	I.No	Item of work	Rate	unit	Amount
1.24	11	Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap / granite/gneiss/ quartzite metal for R.C.C. fins of required thickness in position as shown on the drawings or as directed by Engineer -in-charge including steel centering, plywood / steel form work, steel props, laying/ pumping, compaction ,finishing uneven and honey combed surface with C.M.1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block) Newly laid concrete shall be covered by gunny bag, plastic, tarp aulin etc. with fully automatic microprocess or based PLC with SCADA enable reversible Drum Type mixer/ concrete Batchmix plant (Panmixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	18015.63	Cubic Metre	22339.38
1.25	12	Providing and casting in situ cement concrete of M-25 grade of trap granite / quartzite / gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings or as directed including fixing plastic cover block of required size at 27 Nos in per 10 Sqm to reinforcement to give a clear cover of 15mm in RCC slabs, fixing fan hook box of 100mm diameter PVC or MS material with required depth with holes or notches as required, bottom with 12mm diameter M.S. bar bend to shape with hooked ends for fan hook and painting to exposed surface, centering, formwork of steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement. The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Wooden planks / shuttering will not be allowed). Bd.F.8 Page No. 302 / IS 456:2000	14548.90	Cubic Metre	18186.13
2.88	13	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels, piers, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	89703.00	Metric Tonne	258344.64



Quantity	I.No	Item of work	Rate	unit	Amount
22.96	14	Providing dry rubble stone pitching 23cm (about 9) thick including all material, quarry spalls, labour etc.complete.	796.18	Square Metre	18280.29
5.46	15	Providing Brick masonry in cement mortal 1:6 using second Class Burnt Bricks in foundation and plinth of inner walls/ in plinth of external walls including bailing out water manually, striking joints on unexposed faces ,watering and scaffolding complete Bd. G. 1, Page No.313,	7847.47	Cubic Metre	42847.19
45.56	16	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	8086.47	Cubic Metre	368419.57
660.69	17	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	649.00	Square Metre	428787.81
17.35	18	Providing and fixing steel ventilat or fully glazed partly fixed as per detailed drawing with hot dip zinc coating including fabricating glazing with plain/ obscured glass pans 5mm thick and approved type quality and iron oxidized fixtures and fastening with guards quare bars 12mm 10cmc /cand oil painting 2coats etc. complete.	4827.00	Square Metre	83748.45
660.69	19	Providing and applying white-wash in one coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	8.00	Square Metre	5285.52
660.69	20	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. (excluding the primer coat) etc. complete.	80.00	Square Metre	52855.20



Quantity	I.No	Item of work	Rate	unit	Amount
10.50	21	Providing and fixing rolling shutter fabricated from steel at hsofminimum thickness 0.9mm with lock plate of 3.15 mm thickness reinforced with 35x35x5mm angle section fitted with sliding bolts and handles for both sides, deep M.S.channel section of depth and thickness not less than 65mm and 3.15mm respectively with hold fastarr angements, M.S.Bracket plate 300x300x3.15mm minimum size and shape with square bar, suspension shaft of minimum 32mm diameter, hood cover of M.S. sheet not less than 0.9mm thickness and of any size attopand safety device sincluding mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade castir on or mild steel and one coat of redlead primer etc. complete.(I.S.62481979) (Without mechanical gear)	4829.00	Square Metre	50704.50
169.68	22	Providing and laying in situ cement concrete M20 with tremix treatment for 100 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.	838.72	Square Metre	142314.01
2.55	23	Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting fixing in position, Making riveted/ bolted/ welded connection and one coat of anti corrosive paint and over it 2 coats of oil painting approved quality and shade etc. complete.	119459.00	Metric Tonne	304620.45
196.58	24	Providing and fixing colour coated Zinalume (R) AZ 150 (min150 gms /sq.mt. total on each side) profiled sheets for roofing. The feed materialis manufactured out of nominal 0.45mm Base Metal Thickness (BMT) (0.5mm TCT), Hi-strength steel with min. 550 MP a yield strength, metallic hot dip coated with Aluminium- Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLOR BOND (R) steel quality super durable polyester paint coat (with in organic pigment). The paint shall have a total coating thickness of nominal 35um, comprising of nominal 25 um exterior coat on top surface and nominal 10um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtles quare flutingin the five panat nominal 180-250 mm center-to-center. The endrib shall be designed for anti-capillary groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. Including fasteners with min. fastened with min. 25um Zinc-Tinalloy coated, Hexhead, self-drilling screw etc. complete. (weight of profile 4.52Kilogram / Square Metre).	1173.00	Square Metre	230588.34



Quantity	I.No	Item of work	Rate	unit	Amount
4.00	25	Turbo ventilator 24" MATERIAL. RATES FOR SSR For Year 2021-22,Page no. 374, Building (Bd-R : Roofing and ceiling)	9702.00	No.	38808.00
13.80	26	Providing and fixing UPVC Roof made up of 3 layers roofing material of thickness 2mm having width of 1130mm and of required Length having Tensile strength not less than 330Kilo gram/ cm ² , including fastening with self drilling screw having washers made of stainless steel etc. complete.	1594.00	Square Metre	21997.20
				Total Rs.	2742191.76
			Part A)	Say Rs.	2742192.00
72.01	27	Royalty Charges for sand	237.37	Cum	17093.01
118.63		Royalty Charges for Rubble and HM	216.18	Cum	25645.43
1.00	28	Material Testing Charges	16405.00		16405.00
				Total Rs.	59143.44
			Part B)	Say Rs.	59143.00

Gaurav
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S.W. 1 - W.H.Building

MEASUREMENT SHEET

I.No.

- 1 Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m.beyond the building area & stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering Including shoring and strutting etc. complete. (LIFT UPTO 1.5 M.) By Mechanical Means

For RCC Coloumn Type C1	10	x	1.50	x	1.50	x	1.50	=	33.75	Cum
For RCC Coloumn Type C2	2	x	1.50	x	1.60	x	1.50	=	7.20	
For RCC Coloumn Type C5	4	x	1.30	x	1.30	x	1.00	=	6.76	
Total Qty									=	47.71 Cum

- 2 Excavation for foundation in Hard murum in cluding removing the excavated material upto adistance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means

For RCC Coloumn Type C1	10	x	1.50	x	1.50	x	0.90	=	20.25	Cum
For RCC Coloumn Type C2	2	x	1.50	x	1.60	x	0.90	=	4.32	
For RCC Coloumn Type C5	4	x	1.30	x	1.30	x	0.90	=	6.08	
Total Qty									=	30.65 Cum

- 3 Providing dry trap/ granite/ quartzite/ gneiss rubble stone soiling 15 cm to 20 cm thick including hand packing and compacting complete. Spec.No. : Bd.A.12 Page No. 264 ;

For RCC Coloumn Type C1	10	x	1.50	x	1.50	x	0.23	=	5.18	Cum
For RCC Coloumn Type C2	2	x	1.50	x	1.60	x	0.23	=	1.10	
For RCC Coloumn Type C5	4	x	1.30	x	1.30	x	0.23	=	1.55	
Ware House Plinth	1	x	16.30	x	10.41	x	0.23	=	39.03	
Total Qty									=	46.86 Cum

- 4 Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layers including watering and compacting etc. complete.

Qty As per Exavated Quatity = 78.36 cum

Item no.1 & 2

Total Qty = 78.36 cum

- 5 Filling in plinth and floors with contractors material/ brought from outside and approved by Engineer in charge in layers of 15 cm to 20 cm including watering and compaction etc.complete.

Ware House Plinth	1	x	15.10	x	9.21	x	0.45	=	62.58	cum
Deduction Internal side WH.	2	x	16.30	x	0.60	x	0.45	=	8.80	
Periphery Rubble fillig	2	x	9.21	x	0.60	x	0.45	=	4.97	
									13.77	
Total Qty									=	48.81 cum

- 6 Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)



Deduction Internal side WH. Periphery Rubble fillig	2	x	16.30	x	0.60	x	0.10	=	1.96	cum
	2	x	9.21	x	0.60	x	0.10	=	1.11	
									Total Qty = 3.07	cum

- 7 Providing and laying Cast in situ/ Ready Mix cement concrete in M-10 of trap/granite/quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete ,with fully automatic microprocess or base dPLCwith SCADA enable dreversible Drum Type mixer/ concrete Batch mix plant (Panmixer) etc.complete. With fine aggregate (Crushed sand VSI Grade)

For RCC Coloumn Type C1	10	x	1.50	x	1.50	x	0.10	=	2.25	cum
For RCC Coloumn Type C2.	2	x	1.50	x	1.60	x	0.10	=	0.48	
For RCC Coloumn Type C5	4	x	1.30	x	1.30	x	0.10	=	0.68	
Ware House Plinth	1	x	16.30	x	10.41	x	0.10	=	16.97	cum
									Total Qty = 20.38	cum

- 8 Providing and laying in situ cement concrete of M-25 grade of trap / granite/quartzite/gneiss metal for R.C.C. work like raft, grillages, strips, foundations and footings of R.C.C.columns and steel stanchions including bailing-out water manually, including centering formwork of plywood / steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc complete. (Excluding reinforcement) The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. (Wooden planks / shuttering will not be allowed) Spec.No.:Bd.F.2 Page No. 298 /IS 456 (1978)

For RCC Coloumn Type C1	10	x	1.20	x	1.20	x	0.45	=	6.48	cum
For RCC Coloumn Type C2	2	x	1.20	x	1.30	x	0.45	=	1.40	
For RCC Coloumn Type C5	4	x	1.00	x	1.00	x	0.30	=	1.20	
									Total Qty = 9.08	cum

- 9 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)

For RCC Coloumn Type C1	10	x	0.23	x	0.45	x	5.47	=	5.66	cum
For RCC Coloumn Type C2	2	x	0.23	x	0.45	x	5.47	=	1.13	
For RCC Coloumn Type C5	4	x	0.23	x	0.38	x	1.60	=	0.56	
									Total Qty = 7.35	cum

- 10 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)

Long Wall Ground Beams	8	x	3.90	x	0.23	x	0.45	=	3.23	
Short Wall Ground Beams	4	x	5.09	x	0.23	x	0.60	=	2.81	
Varandah Plinth Beams Long	2	x	3.60	x	0.23	x	0.38	=	0.63	
Varandah Plinth Beams Short	4	x	1.60	x	0.23	x	0.30	=	0.44	



Long & Short Wall above V2	20	x	0.95	x	0.23	x	0.23	=	1.01
Long Wall Lintel Beams	6	x	3.90	x	0.23	x	0.30	=	1.61
Long Wall Beams Above RS	2	x	4.50	x	0.23	x	0.38	=	0.79
Long Wall Floor Beams	8	x	3.90	x	0.23	x	0.30	=	2.15
Short Wall Floor Beams	4	x	5.09	x	0.23	x	0.30	=	1.40
							Total Qty	=	14.07 cum

- 11 Providing and laying Cast in.situ/Ready Mix cement concrete in M-20 of trap / granite/gneiss/ quartzite metal for R.C.C. fins of required thickness in position as shown on the drawings or as directed by Engineer -in-charge including steel centering, plywood / steel form work, steel props, laying/ pumping, compaction ,finishing uneven and honey combed surface with C.M.1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block) Newly laid concrete shall be covered by gunny bag, plastic, tarp aulin etc. with fully automatic microprocess or based PLC with SCADA enable dreversible Drum Type mixer/ concrete Batchmix plant (Panmixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)

Long Wall Ventilators V2 Top	10	x	1.56	x	0.60	x	0.075	=	0.70
Long Wall Ventilators V2 Sides	20	x	0.60	x	0.60	x	0.075	=	0.54
							Total Qty	=	1.24 cum

- 12 Providing and casting in situ cement concrete of M-25 grade of trap granite / quartzite / gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings or as directed including fixing plastic cover block of required size at 27 Nos in per 10 Sqm to reinforcement to give a clear cover of 15mm in RCC slabs, fixing fan hook box of 100mm diameter PVC or MS material with required depth with holes or notches as required, bottom with 12mm diameter M.S. bar bend to shape with hooked ends for fan hook and painting to exposed surface, centering, formwork of steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement. The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Wooden planks / shuttering will not be allowed).
Bd.F.8 Page No. 302 / IS 456:2000

Varandah Plinth Slab	2	x	3.90	x	1.60	x	0.100	=	1.25
							Total Qty	=	1.25 cum

- 13 Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.

For RCC Footing	9.08	@	80.00	Kg	=	726.40	Kg
For RCC Coloumn	7.35	@	90.00	Kg	=	661.50	Kg
For RCC Beam	14.07	@	90.00	Kg	=	1266.30	Kg
For RCC Fins	1.24	@	80.00	Kg	=	99.20	Kg
For RCC Slab	1.25	@	100.00	kg	=	125.00	kg
					Total Qty	=	2878.40 Kg
					Say	=	2.88 MT

- 14 Providing dry rubble stone pitching 23cm (about 9) thick including all material, quarry spalls, labour etc.complete.

Long Wall Internal Side Over size Metal in 2 Layers	2	x	16.30		x	0.45	=	14.67	Sqm
Short Wall Internal Side Over size Metal in 2 Layers	2	x	9.21		x	0.45	=	8.29	
							Total Qty	=	22.96 Sqm

- 15 Providing Brick masonry in cement mortal 1.6 using second Class Burnt Bricks in foundation and plinth of inner walls/ in plinth of external walls including bailing out water manually, striking joints on unexposed faces ,watering and scaffolding complete. Bd. G. 1, Page No.313,

Long Wall Ground Beams	8	x	3.90	x	0.23	x	0.50	=	3.59 cum
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Short Wall Ground Beams	4	x	5.09	x	0.23	x	0.40	=	1.87	
									Total	5.46
									Total Qty	= 5.46 cum

- 16 Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete

Long Wall Superstructure	8	x	3.90	x	0.23	x	4.52	=	32.44	cum
Short Wall Superstructure	4	x	5.09	x	0.23	x	4.52	=	21.17	cum
Short Wall Superstructure	2	x	5.21	x	0.23	x	1.20	=	2.87	
									Total	= 56.48
Deduction For V2	20	x	0.60	x	0.60	x	0.23	=	1.66	
Deduction For V1	12	x	1.41	x	0.60	x	0.23	=	2.33	
Deduction For RS	2	x	2.10	x	2.50	x	0.23	=	2.42	
Long Wall Floor Beams	8	x	3.90	x	0.23	x	0.38	=	2.73	
Short Wall Floor Beams	4	x	5.09	x	0.23	x	0.38	=	1.78	
									Total	= 10.92
									Total Qty	= 45.56 cum

- 17 Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc. complete.

Long Wall	2	x	16.76			x	5.88	=	197.10	Sqm
Short Wall	2	x	10.87			x	5.88	=	127.83	
Long Wall Inner side	2	x	16.30			x	4.88	=	159.09	
Short Wall Inner side	2	x	10.41			x	4.88	=	101.60	
Short Span Gable Walls External	2	x	5.21			x	1.20	=	12.49	
Short Span Gable Walls Internal	2	x	5.21			x	1.20	=	12.49	
Long Wall Coloumn Offsets C1	10	x	0.39			x	4.88	=	19.03	
Long Wall Coloumn Offsets C2	2	x	0.39			x	4.88	=	3.81	
Long Wall Coloumn Offsets C5	4	x	1.36			x	1.20	=	6.53	
Verandah Slab	2	x	4.36			x	1.83	=	15.96	
Verandah Slab Sides	4	x	1.83			x	0.38	=	2.78	
Verandah Slab Front	2	x	4.36			x	0.45	=	3.92	
V2 Top two sides	40	x	1.76			x	0.60	=	42.24	
V1 Top two sides	24	x	0.80			x	0.60	=	11.52	
									Total	= 716.39
Deduction										
Deduction For V2 Both Side	40	x	0.60			x	0.60	=	14.40	
Deduction For V1 Both Side	24	x	1.41			x	0.60	=	20.30	
Deduction For RS Both Side	4	x	2.10			x	2.50	=	21.00	
									Total	= 55.70
									Total Qty	= 660.69 Sqm



- 18 Providing and fixing steel ventilat or fully glazed partly fixed as per detailed drawing with hot dip zinc coating including fabricating glazing with plain/ obscured glass pans 5mm thick and approved type quality and iron oxidized fixtures and fastening with guards quare bars 12mm 10cmc /cand oil painting 2coats etc. complete.

V2	20	x	0.60	x	0.60	=	7.20	Sqm		
V1	12	x	1.41	x	0.60		10.15			
							Total Qty	=	17.35	Sqm

- 19 Providing and applying white-wash in one coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.

Qty.As per Item no.17						=	660.69	Sqm		
							Total Qty	=	660.69	Sqm

- 20 Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. (excluding the primer coat) etc. complete.

Qty.As per Item no.17						=	660.69	Sqm		
							Total Qty	=	660.69	Sqm

- 21 Providing and fixing rolling shutter fabricated from steell at hsofminimum thickness 0.9mm with lock plate of 3.15 mm thickness reinforced with 35x35x5mm angle section fitted with sliding bolts and handles for both sides, deep M.S.channel section of depth and thickness not less than 65mm and 3.15mm respectively with hold fastarr angements, M.S.Bracket plate 300x300x3.15mm minimum size and shape with square bar, suspension shaft of minimum 32mm diameter, hood cover of M.S. sheet not less than 0.9mm thickness and of any size attopand safety device sincluding mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade castir on or mild steel and one coat of redlead primer etc. complete.(I.S.62481979) (Without mechanical gear)

RS 1	2	x	2.10	x	2.50	=	10.50	Sqm		
							Total Qty	=	10.50	Sqm

- 22 Providing and laying in situ cement concrete M20 with tremix treatment for 100 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.

Warehouse Flooring	1	x	16.30	x	10.41	=	169.68	Sqm		
							Total Qty	=	169.68	Sqm

- 23 Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting fixing in position, Making riveted/ bolted/ welded connection and one coat of anti corrosive paint and over it 2 coats of oil painting approved quality and shade etc. complete.

Total No. of Truss With,Rafter Purlin, Vertical Member, Runner & etc.	3	x	650.00	x		=	1950.00	MT
Varandah Canopy	2	x	300.00	x		=	600.00	
							2550.00	



Total Qty = 2.55 MT

- 24 Providing and fixing colour coated Zinalume (R) AZ 150 (min 150 gms /sq.mt. total on each side) profiled sheets for roofing. The feed material is manufactured out of nominal 0.45mm Base Metal Thickness (BMT) (0.5mm TCT), Hi-strength steel with min. 550 MP a yield strength, metallic hot dip coated with Aluminium- Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLOR BOND (R) steel quality super durable polyester paint coat (with in organic pigment). The paint shall have a total coating thickness of nominal 35um, comprising of nominal 25 um exterior coat on top surface and nominal 10um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtle square fluting in the five panat nominal 180-250 mm center-to-center. The endrib shall be designed for anti-capillary groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. Including fasteners with min. fastened with min. 25um Zinc-Tin alloy coated, Hexhead, self-drilling screw etc. complete. (weight of profile 4.52 Kilogram /

Roof Slop	2	x	5.80	x	16.76	=	194.42	Sqm
Verandah	2	x	4.36	x	1.83	=	15.96	
						Total	210.38	
Deduction For Turbo Ventilator & Sky light Upvc roof	4.00	x	3.00	x	1.150	=	13.80	
						Total	13.80	
						Total Qty =	196.58	Rmt

- 25 Turbo ventilator 24" MATERIAL RATES FOR SSR For Year 2021-22, Page no. 374, Building (Bd-R : Roofing and ceiling)

At Roof Level Ventilation						=	4.00	No.
						Total Qty =	4.00	No.

- 26 Providing and fixing UPVC Roof made up of 3 layers roofing material of thickness 2mm having width of 1130mm and of required Length having Tensile strength not less than 330Kilo gram/ cm², including fastening with self drilling screw having washers made of stainless steel etc. complete.

	4.00	x	3.00	x	1.15	=	13.80	Sqm
						Total Qty =	13.80	Sqm

- 27 Royalty Charges

	Material		Qty			Qty of Material	Cum
6	Providing and filling in the foundati	1	x	3.07	x	1.000	= 3.07 Cum
7	Providing and laying Cast in situ/ R	1	x	20.38	x	0.470	= 9.58
8	Providing and laying in situ cement	1	x	9.08	x	0.425	= 3.86
9	Providing and laying Cast in situ/Re	1	x	7.35	x	0.425	= 3.12
10	Providing second class Burnt Brick	1	x	14.07	x	0.425	= 5.98
11	Providing sand faced plaster extern	1	x	1.24	x	0.425	= 0.53
12	Providing and casting in situ cemen	1	x	1.25	x	0.425	= 0.53
15	Providing Brick masonry in cement	1	x	5.46	x	0.320	= 1.75
16	Providing second class Burnt Brick	1	x	45.56	x	0.320	= 14.58
17	Providing sand faced plaster extern	1	x	660.69	x	0.033	= 21.80
22	Providing and laying in situ cement	1	x	169.68	x	0.043	= 7.21
						Total Qty =	72.01 Cum
3	Providing dry trap/ granite/ quartzitu	1	x	46.86	x	1.00	= 46.86
5	Filling in plinth and floors with con	1	x	48.81	x	1.00	= 48.81
14	Providing dry rubble stone pitching	1	x	22.96	x	1.00	= 22.96
						Total Qty =	118.63 Cum



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Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

S.W. I - W.H. Building

RATE ANALYSIS AS PER PWD SSR 2022-23 For MAHARASHTRA STATE

Sr. No.	Description of Item	S.S.R. Page No. & It. No.	Basic Rate	Add extra lead charges for.....						Total Lead charges	Gross Rate
				Rubble/Cr. Metal	Sand	Cr. Metal	Murum	Cement/Steel			
1	Excavation for foundation in earth, soil of all types, sand, g	21.02	207.00	383.18	263.19	313.21	252.22	5.22	0.00	207.00	
2	Excavation for foundation in Hard murum in cluding remov	21.08	284.00						0.00	284.00	
3	Providing dry trap/ granite/ quartzite/ gneiss rubble stone so	21.38	1382.00	1.00	383.18				383.18	1765.18	
4	Filling in plinth and floors with approved excavated materia	21.36	120.00						0.00	120.00	
5	Filling in plinth and floors with contractors material/ broug	21.37	795.00				1.00	252.22	252.22	1047.22	
6	Providing and filling in the foundation with sand of approv	21.39	2160.00		1.00	263.19			263.19	2423.19	
7	Providing and laying Cast in situ/ Ready Mix cement concre	24.01	5830.00		0.47	123.70	0.940	294.42	4.40	6271.09	
8	Providing and laying in situ cement concrete of M-25 grade	25.13	7287.00		0.425	111.86	0.90	281.89	7.50	7719.90	
9	Providing and laying Cast in situ/Ready Mix cement concre	25.33	13967.00		0.425	111.86	0.90	281.89	7.50	14399.90	
10	Providing and laying Cast in situ/Ready Mix cement concre	25.52	12452.00		0.425	111.86	0.85	266.23	7.50	12869.24	
11	Providing and laying Cast in situ/Ready Mix cement concre	26.31	17601.00		0.425	111.86	0.85	266.23	7.00	18015.63	
12	Providing and casting in situ cement concrete of M-25 grad	25.72	14116.00		0.425	111.86	0.90	281.89	7.50	14548.90	
13	Providing and fixing in position TMT - FE - 500 bar reinfo	26.33	89703.00						0.00	89703.00	
14	Providing dry rubble stone pitching 23cm (about 9) thick in	2.34	413.00	1.00	383.18				383.18	796.18	
15	Providing Brick masonry in cement mortar 1.6 using second	27.01	7755.00		0.32	84.22			1.58	7847.47	
16	Providing second class Burnt Brick masonry with conventio	27.05	7994.00		0.32	84.22			1.58	8086.47	
17	Providing sand faced plaster externally in cement mortar us	32.11	639.00		0.033	8.69			0.25	649.00	
18	Providing and fixing steel ventilat or fully glazed partly fix	39.30	4827.00						0.00	4827.00	
19	Providing and applying white-wash in one coat on old/ new	36.02	8.00						0.00	8.00	
20	Providing and applying plastic emulsion paint of approved	36.12	80.00						0.00	80.00	
21	Providing and fixing rolling shutter fabricated from steel at	39.24	4829.00						0.00	4829.00	
22	Providing and laying in situ cement concrete M20 with tren	33.30	796.00		0.043	11.19	0.089	27.88	0.70	838.72	
23	Providing structural steel work in trusses, other similar trus	23.04	119459.00						0.00	119459.00	
24	Providing and fixing colour coated Zincalume (R) AZ 150 (38.34	1173.00						0.00	1173.00	
25	Turbo ventilator 24" MATERIAL RATES FOR SSR For Y	SSR 22-23, Page no. 374 I, no.42	9702.00						0.00	9702.00	
26	Providing and fixing UPVC Roof made up of 3 layers roofi	38.37	1594.00						0.00	1594.00	
27	Royalty Charges for Pulpit and HM		216.18						0.00	216.18	



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Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

S.W. 1 - W.H. Building

Appendix - I

Lead Chart

Sr. No.	Description	Rubble	Murum	Crush metal	Crush metal 40 mm above	Sand	Cement	Steel	
1	2	3	4	4	4	5	6	7	
	Source	Restricted	Local	Restricted	Restricted	Restricted	Local	Local	
1	Average lead as per Quarry chart in km	8.00	5.00	8.00	8.00	5.00	1.00	1.00	
2	Lead charges	383.18	252.22	313.21	300.16	263.19	104.39	104.39	
4	Extra lead charges	383.18	252.22	313.21	300.16	263.19	104.39	104.39	
5	Extra lead charges per bag of cement						5.22		

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S.W. I - W.H. Building

TESTING CHART

Item	Qty	Soil/HM	Bitumen	Metal	Agg.	Tests	Frequency	Total Test	At Site	At Lab	Rate	Amt
Concrete												
		Cement										
		Sand										
M 10	20.38	4.48	9.58		19.16	Comp. Strength- Cube		9	5	4	690.00	2760.00
M 20	18.21	6.37	0.77		16.39							
M 25	30.50	11.44	1.30		27.45							
Total	69.09	22.29	11.65		62.99	Crush Metal-Basic Test	1/1000 Cum	3	2	1	2600.00	2600.00
		MT	Cum		Cum	Gradation	1/100 Cum	3	2	1	745.00	745.00
						Combined Flakiness & Elongation of single metal	1/400 Cum	2	1	1	850.00	850.00
						Cement-Fineness, consistency, Setting time, Compressive strength, Specific Gravity	1/50 MT	1	1	1	3770.00	3770.00
						Sand-Fineness Modulus, Silt Content	1/ Source	1	1	1	1380.00	1380.00
						Water Absorption (Set of 5 Bricks), Compressive Strength (Set of 5 Bricks), Efflorescence (Set of 5 Bricks).	Set of 5 Bricks	1	1	1	2175.00	2175.00
						GSB Mix Design./Cement Treated Sub Base (CTSSB)		2	1	1	16250.00	16250.00
						Concrete Mix Design (With all Tests on basic materials)		2	1	1	13755.00	13755.00
											Total	44285.00

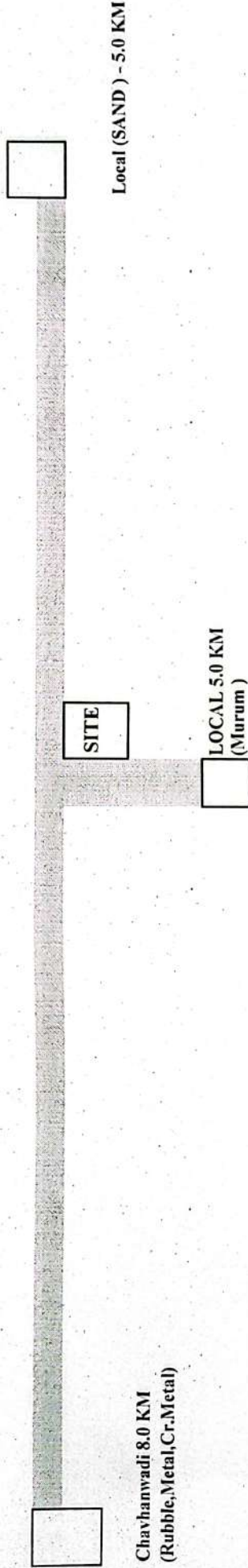


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Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist-Satara (MH)

Quarry Chart



LEAD STATEMENT

Material	Quarry	Lead in Km.
Rubble	Chavhanwadi	8.00
Metal	Chavhanwadi	8.00
Crushed Metal	Chavhanwadi	8.00
Murum	Local	5.00
Sand	Local	5.00

CERTIFICATE.

- 1 Certified that the quarries shown on the quarry chart for metal & murum are inspected by me & they are nearest & economical to the work & contain sufficient & good quality material required for the work.
- 2 Certified that lead for quarries shown and accounted in the estimate is as per nearest route.
- 3 Certified that leads considered are found to be correct.



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S.W. II - Internal Bituminous roads

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
450.60	1	Clearing grass and removal of rubbish up to a distance of 50 metres outside the periphery of the area .	4.00	Sqm	1802.40
50.70	2	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Vibratory roller. to the required density. By Mechanical Means - Grading I (Using Screening Type A (13.2) mm Aggregate)	2713.73	Cum	137586.11
23.66	3	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with vibratory roller to the required density. By Mechanical Means - Grading II (Using Screening Type B (11.2 mm) Aggregate)	2666.33	Cum	63076.04
281.63	4	Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone metal layers 100% crusher broken metal with conical crusher plant heating and spraying the bitumen of specified grade @ 2 Kilogram/Square Metre, spreading 12 mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc. complete. (VG-30 bulk bitumen)	361.68	Sqm	101858.13



Quantity	I.No	Item of work	Rate	unit	Amount
281.63	5	Open Graded Premix Surfacing- Providing and Laying OGC 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder @ 1.56 Kg/Sqm transported to site with VTS, laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime / tack and Seal coat. For Bitumen of specified grade--USING drum mix type hot mix plant, Paver and Vibratory roller (Over MPM Surface) (VG-30 bulk Grade 60/70)	213.46	Sqm	60115.67
281.63	6	9 MM SEAL COAT: Providing and laying of Type A 9 mm premix seal coat with HMP of Sqm appropriate capacity crushed stone chipping 6.7 mm size and penetration bitumen of specified grade @ 1.2 kg/Sq.m, preparing existing road surface by mechanical means, spreading chips and rolling, by static roller having weight 8 to 10 MT etc. complete. (VG-	132.38	Sqm	37281.52
40.55	7	Supplying hard murum/ kankar at the road site, including conveying and stacking complete.	850.22	Cum	34479.82
40.55	8	Spreading hard murum/ soft murrum/ gravel or kankar for side width complete	79.00	Cum	3203.77
405.54	9	Compacting the hard murum side widths including laying in layers on each side with vibratory roller including artificial watering etc. complete.	21.00	Sqm	8516.34
				Total Rs.	447919.80
			Part A)	Say Rs.	447920.00
603.76	10	Royalty Charges	216.18	Cum	130521.38
1.00		Material Testing Charges	52110.00		52110.00
				Total Rs.	182631.38
			Part B)	Say Rs.	182631.00

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Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In
 Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

S.W. II - Internal Bituminous roads

I.No.

MEASUREMENT SHEET

- 1 Clearing grass and removal of rubbish up to a distance of 50 metres outside the periphery of the area .
- Road formation
 New Road
 Internal Road 1 x 57.00 x 6.00 = 342.00 Sqm
 Short Side 1 x 18.10 x 6.00 = 108.60
Total Qty = 450.60 Sqm
- 2 Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Vibratory roller. to the required density. By Mechanical Means - Grading I (Using Screening Type A (13.2) mm Aggregate)
- Long Side 1 x 57.00 x 4.50 x 0.15 = 38.48 Cum
 Short Side 1 x 18.10 x 4.50 x 0.15 = 12.22
Total Qty = 50.70 Cum
- 3 Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with vibratory roller to the required density. By Mechanical Means - Grading II (Using Screening Type B (11.2 mm) Aggregate)
- Internal Road 1 x 57.00 x 4.20 x 0.075 = 17.96 Cum
 Short Side 1 x 18.10 x 4.20 x 0.075 = 5.70
Total Qty = 23.66 Cum
- 4 Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone metal layers 100% crusher broken metal with conical crusher plant heating and spraying the bitumen of specified grade @ 2 Kilogram/Square Metre, spreading 12 mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achieve the desired degree of compaction as per Technical Specification Clause 506 etc. complete. (VG-30 bulk bitumen)
- Internal Road 1.00 x 57.00 x 3.75 = 213.75 Sqm
 Short Side 1.00 x 18.10 x 3.75 = 67.88
Total Qty = 281.63 Sqm
- 5 Open Graded Premix Surfacing- Providing and Laying OGC'20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder @ 1.56 Kg/Sqm transported to site with VTS, laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime / tack and Seal coat. For Bitumen of specified grade--USING drum mix type hot mix plant, Paver and Vibratory roller (Over MPM Surface) (VG-30 bulk Grade 60/70)
- Road 1.00 x 281.63 = 281.63 Sqm
Total Qty = 281.63 Sqm



- 6 9 MM SEAL COAT: Providing and laying of Type A 9 mm premix seal coat with HMP of Sqm appropriate capacity crushed stone chipping 6.7 mm size and penetration bitumen of specified grade @ 1.2 kg/Sqm, preparing existing road surface by mechanical means, spreading chips and rolling, by static roller having weight 8 to 10 MT etc. complete. (VG-
Qty same as per Item No. 5

	=	281.63	Sqm
Total Qty	=	281.63	Sqm

- 7 Supplying hard murum/ kankar at the road site, including conveying and stacking complete.

For Blanketing	1.00	x	75.10	x	4.20	x	0.10	=	31.54	Cum
Side Strips	2.00	x	75.10	x	0.60	x	0.10	=	9.01	Cum
								Total Qty	40.55	Cum

- 8 Spreading hard murum/ soft murrum/ gravel or kankar for side width complete

Qty same as per Item No. 7								Total Qty	40.55	Cum
----------------------------	--	--	--	--	--	--	--	------------------	--------------	------------

- 9 Compacting the hard murum side widths including laying in layers on each side with vibratory roller including artificial watering etc. complete.

For Blanketing	1.00	x	75.10	x	4.20			=	315.42	
Side Strips	2.00	x	75.10	x	0.60			=	90.12	
								Total Qty	405.54	Sqm

- 10 Royalty Charges

Material	Qty	Consumption		Qty of Material	
Grd I & Grd II	74.36	x 0.08	=	5.95	Cum
Murum	40.55	x 1.00	=	40.55	
MPM 40mm metal	281.63	x 0.09	=	25.35	
			Hm and Rubble Total Qty	71.85	Cum
				71.85	Cum

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Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

S.W. II - Internal Bituminous roads

Rate Analysis for BT Items

Item No.4:- Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone metal layers 100% crusher broken metal with conical crusher plant heating and spraying the bitumen of specified grade @ 2 Kilogram/Square Metre, spreading 12 mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc. complete. (VG-30 bulk bitumen)

A) Basic Rate SSR 20222-23 Road Sub Base and Base Course I.No.3.35a	Rs	280.00	Per Sqm
<u>Add for asphalt</u> <u>Diff.016/09/2022</u>	46040	-	32877 = 13163 x 0.002
	Rs	26.33	Per Sqm
B) Add.extra lead charges for			
A) 40 mm	0.09	70%	x 502.27 Rs. 31.64 Per Sqm
B)40 mm Crush metal	0.09	30%	x 393.44 Rs. 10.62 Per Sqm
C) Crush metal	0.018		x 410.55 Rs 7.39 Per Sqm
D) Bulk asphalt	0.002		x 2850.00 Rs 5.70 Per Sqm
Total Rate	Rs	361.68	Per Sqm

Item No.5:- Open Graded Premix Surfacing- Providing and Laying OGC 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder @ 1.56 Kg/Sqm transported to site with VTS, laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime /tack and Seal coat. For Bitumen of specified grade--USING drum mix type hot mix plant, Paver and Vibratory roller (Over MPM Surface) (VG-30 bulk Grade 60/70)

A) Basic Rate SSR 2022-23 Road Surfacing Course I.No.4.11	Rs	175.00	Per Sqm
<u>Add for asphalt</u> <u>Diff.016/09/2022</u>	46040	-	32877 = 13163 x 0.00171
	Rs	22.51	Per Sqm
B) Add.extra lead charges for			
Crush metal	0.027		x 410.55 Rs 11.08 Per Sqm
Bulk asphalt. $\frac{(1.46+0.25)}{1000}$	0.0017		x 2850.00 Rs 4.87 Per Sqm
Total Rate	Rs	213.46	Per Sqm

Item No.6:- 9 MM SEAL COAT: Providing and laying of Type A 9 mm premix seal coat with HMP of Sqm appropriate capacity crushed stone chipping 6.7 mm size and penetration bitumen of specified grade @ 1.2 kg/Sq.m, preparing existing road surface by mechanical means, spreading chips and rolling, by static roller having weight 8 to 10 MT etc. complete. (VG-

A) Basic Rate SSR 2022-23 Road Surfacing Course I.No.4.13	Rs	113.00	Per Sqm
<u>Add for asphalt</u> <u>Diff.016/09/2022</u>	46040	-	32877 = 13163 x 0.00098
	Rs	12.90	Per Sqm
B) Add.extra lead charges for			
Crush metal	0.009		x 410.55 Rs 3.69 Per Sqm
Bulk asphalt. $\frac{(0.98)}{1000}$	0.001		x 2850.00 Rs 2.79 Per Sqm
Total Rate	Rs	132.38	Per Sqm

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Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd,In Gat no.13/1, At-Padegaon, Tq-Khandala,
Dist- Satara (MH)

S.W. II - Internal Bituminous roads

RATE ANALYSIS AS PER PWD SSR 2022-23

Sr. No.	Description of Item	D.S.R. Page No. & It. No.	Basic Rate	Add extra lead charges for.....						Total Lead charges	Gross Rate
				Rubble/Cr. Metal	Sand	Cr. Metal	Murum	Cement/Steel			
1	Clearing grass and removal of rubbish up to a distance of	2.07	4.00	383.18	263.19/M ³	313.21/M ³	252.22/M ³	5.22/M.T.	0.00	4.00	
2	Providing, laying, spreading and compacting stone	3.18	2230.00	1.21	378.98	0.27	84.5667	0.08	20.1776	483.73	
3	Providing, laying, spreading and compacting stone aggregate	3.20	2192.00	1.21	378.98	0.24	75.17	0.08	20.18	474.33	
4	Providing and constructing 75 mm. thick Modified Per	3.35a	361.68							0.00	
5	Open Graded Premix Surfacing- Providing and Laying	4.12	213.46							0.00	
6	9 MM SEAL COAT: Providing and laying of Type A 9	4.01	132.38							0.00	
7	Supplying hard murum/ kankar at the road site, including	2.29a	598.00				1.00	252.22		252.22	
8	Spreading hard murum/ soft murum/ gravel or kankar	2.30	79.00							0.00	
9	Compacting the hard murum side widths including laying	2.31	21.00							0.00	
10	Royalty Charges		216.18							0.00	

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Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist-Satara (MH)

S.W. II - Internal Bituminous roads

TESTING CHART

Item	Qty	Soil/HM	Bitumen	Metal	Agg.	Tests	Frequency	Total Test	At Site	At Lab	Rate	Amt
HM and E/W	40.55	40.55				Plasticity Index for Murum	1/400 Cum	0	0	1	1170.00	1170.00
Grd 1&II	74.36	5.94852		89.97137		Combined Flakiness & Elongation of single metal	1/350 Cum	1	1	1	850.00	850.00
75 mm MPM	281.63		0.58	11.83	9.29	Gradation	1/100 Cum	0	0	1	690.00	690.00
Total	281.63		0.58	11.83	9.29	Combined Flakiness & Elongation of single metal	1/350 Cum	0	0	1	850.00	850.00
Carpet Sealcoat	281.63		0.76		10.14	Binder Content	2/day	2	1	1	1595.00	1595.00
						B. M. Mix Design with all Tests on aggregate (Excluding bitumen) (Testing of Bitumen shall be seperately Charged)	1 Mix Design	2		1	7490.00	7490.00
Total			1.33	11.83	19.43	Penetration, Softening Point, Flash & Fire Point, Specific Gravity	2/day	2	1	1	3135.00	3135.00
						Extraction Test.(Bituminous mix)	1 Test	5	3	1	1595.00	1595.00
						Job Mix Design with all Tests on aggregate (Excluding bitumen) for DBM/SDBC/AC/SMA (Stone Mastic Asphalt)	1 Test	2	1	1	16250.00	16250.00
						Viscosity	2/day	2	1	1	1910.00	1910.00
											Total	35535.00

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Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

Sub Work No:-III Electrification

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
16.00	1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 6 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL 7-1-9	124.00	Running Meter	1984.00
8.00	2	Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR 16-1-1	156.00	Running Meter	1248.00
3.00	3	Making trench in Hard murum/Tar road having 0.75 m depth and minimum 0.3mtr width as per IS for laying provided cables up to voltage level 1.1Kv cable complete as per specification No. CW-EXN-CTR 7-2-5	193.00	Running Meter	579.00
8.00	4	Supplying and erecting mains with 3x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW 5-12-1	79.00	Running Meter	632.00
1.00	5	Supplying & erecting CRCA sheet metal enclosures of 1.2mm thickness with 10A, 2 pin plug & earth socket and 10A, 3 pin plug top with 10A single pole MCB having rated short - circuit breaking capacity (Icn) 10kA complete erected on angle iron / GI frame. 5-4-10	765.00	Number	765.00
12.00	6	Point wiring for light/fan/bell in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW 1-7-3	743.00	Number	8916.00
1.00	7	Supplying & erecting 10-12W, 230V integral type LED Lamp suitable for B-22 /E-27 base. 2-8-11	230.00	Number	230.00
6.00	8	Supplying and erecting integrated LED street light fitting 18 to 22W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 1800 Lumens, min. efficacy of 100 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140- 270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FGODF/ FLS2. 2-4-1	1712.00	Number	10272.00



Quantity	I.No	Item of work	Rate	unit	Amount
6.00	9	Supplying and erecting Street light bracket made from 40 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-2	635.00	Number	3810.00
1.00	10	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP 9-1-1	4238.00	Number	4238.00
1.00	11	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP 9-1-4	1355.00	Number	1355.00
1.00	12	Supplying, erecting & marking DPMCB 6A to 32A, C-series with rated short -circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-6	488.00	Number	488.00
1.00	13	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-3	164.00	Number	164.00
1.00	14	Supplying and erecting GI sheet 1.6 mm (16 SWG) having zinc coating of 350 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. 6-1-6	2264.00	Square Metre	2264.00
1.00	15	Supplying and erecting marine (Waterproof) plywood 18/19 mm thick fixed to wall or on provided panel board with necessary materials such as screws, wall fasteners, supports, nut bolts etc. complete with compliance to IS 720:2010 6-1-14	1342.00	Square Metre	1342.00
1.00	16	Supplying & erecting triple pole and neutral distribution board (TPNDB), 3 pole/ 4 pole MCCB as incomer & outgoing SP MCB (12 poles) or TP MCB of 4 ways (12 poles), with door, 1.2mm thickness, surface/flush mounted, on iron/GI frame (vertical busbar type) as per specification no.SW-SWR/MCBDBI 5-4-15	4057.00	Number	4057.00
2.00	17	Supplying & erecting G.I. pipe 'A' class 25 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-1	196.00	Running Meter	392.00
2.00	18	Supplying & erecting G.I. pipe 'A' class 40 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-2	304.00	Running Meter	608.00



Quantity	I.No	Item of work	Rate	unit	Amount
2.00	19	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 75 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete. 7-6-10	227.00	Running Meter	454.00
1.00	20	Supplying & erecting 18 gauge M.S. Box powder coated (4"x4") 3 way for mains connection. MR	500.00	Number	500.00
4.00	21	Supplying & erecting single compression type brass cable glands for 3 to 4 core 6 sq mm /2 to 4 core 10 sq mm for XLPE armoured cable as per specification No.CB-GL 7-7-2	58.00	Number	232.00
4.00	22	Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. 1-5-7	35.00	Number	140.00
2.00	23	Point wiring for independent plug in 20 mm metal conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW 1-7-2	814.00	Number	1628.00
2.00	24	Wiring for plug on board with Switch socket surface/concealed type, copper wiring and earthing and with modular accessories as per specification No: WGPW/ CW 1-7-26	481.00	Number	962.00
10.00	25	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-2	57.00	Running Meter	570.00
6.00	26	Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-3	78.00	Running Meter	468.00
1.00	27	Supplying and erecting modular type D.P. switch 32A with indicator, duly erected on provided plate and box with wiring connections complete. 1-6-8	183.00	Number	183.00
1.00	28	Supplying, erecting and marking double pole isolator only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc.in provided distribution board. 5-3-14	293.00	Number	293.00
2.00	29	Supplying & erecting 3W, 230V integral type LED Lamp suitable for B-22 / E- 27 base. 2-8-9	125.00	Number	250.00



Quantity	I.No	Item of work	Rate	unit	Amount
4.00	30	Supplying and erecting IP65 and IK08 rated UV shielded polycarbonate waterproof and dustproof industrial grade LED fitting (4 feet) max. 36W with high transitivity diffuser with system lumens output of min. 4300 lumens , min. efficacy of 120 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., Ripple<5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50 , IP20 rated, including driver with auto cutoff & auto restart feature at 325V with end caps on PVC lock/wooden board with 3 years warranty. 2-2-1	2751.00	Number	11004.00
1.00	31	Supplying and erecting regular/ standard model ceiling fan of 900 /1050 mm. sweep complete erected in position as per specification no. FG-FN/CF 2-10-2	1894.00	Square Meter	1894.00
1.00	32	Supplying and erecting ding dong / electronic musical type call bell with heavy duty coil suitable to operate on 230V A.C. supply erected on olished double wooden block/sunmica block of suitable size. 2-3-13	131.00	Number	131.00
4.00	33	Supplying and erecting Street light bracket made from 25 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-1	567.00	Number	2268.00
1.00	34	Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB/RCCB/RCBO complete erected on angle iron/GI frame. 5-4-13	361.00	Number	361.00
1.00	35	Supplying, erecting and marking four pole isolators only switch version of miniature circuit breakers of 40A in provided distribution board. 5-3-18	625.00	Number	625.00
				Total Rs.	65307.00
			Part A)	Say Rs.	65307.00

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Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

Sub Work No:-III Electrification

MEASUREMENT SHEET

Item No.	Description of Items	NO.	LENTH	BREATH	DEPTH	TOTAL	UNIT					
1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 6 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL 7-1-9						Running Meter					
	Ware House	1	x	1	x	16.00	x	1	x	1	=	16.00
						Total						16.00
						Say						16.00
2	Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR 16-1-1						Running Meter					
	Ware House	1	x	1	x	8.00	x	1	x	1	=	8.00
						Total						8.00
						Say						8.00
3	Making trench in Hard murum/Tar road having 0.75 m depth and minimum 0.3mtr width as per IS for laying provided cables up to voltage level 1.1Kv cable complete as per specification No. CW-EXN-CTR 7-2-5						Number					
	Ware House	1	x	1	x	3.00	x	1	x	1	=	3.00
						Total						3.00
						Say						3.00
4	Supplying and erecting mains with 3x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW 5-12-1						Running Meter					
	Ware House	1	x	1	x	8.00	x	1	x	1	=	8.00
						Total						8.00
						Say						8.00
5	Supplying & erecting CRCA sheet metal enclosures of 1.2mm thickness with 10A, 2 pin plug & earth socket and 10A, 3 pin plug top with 10A single pole MCB having rated short - circuit breaking capacity (Icn) 10kA complete erected on angle iron / GI frame. 5-4-10						Number					
	Ware House	1	x	1	x	1.00	x	1	x	1	=	1.00
						Total						1.00
						Say						1.00
6	Point wiring for light/fan/bell in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW 1-7-3						Number					
	Ware House	1	x	12	x	1.00	x	1	x	1	=	12.00
						Total						12.00
						Say						12.00
7	Supplying & erecting 10-12W, 230V integral type LED Lamp suitable for B-22 /E-27 base. 2-8-11						Number					
	Ware House	1	x	1	x	1.00	x	1	x	1	=	1.00
						Total						1.00
						Say						1.00



- 8 Supplying and erecting integrated LED street light fitting 18 to 22W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 1800 Lumens, min. efficacy of 100 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f.>0.95, operating range of 140- 270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FGODF/ FLS2. 2-4-1 Number

Ware House	1	x	6	x	1.00	x	1	x	1	=		6.00
											Total	6.00
											Say	6.00

- 9 Supplying and erecting Street light bracket made from 40 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 7-7-7 Number

Ware House	1	x	6	x	1.00	x	1	x	1	=		6.00
											Total	6.00
											Say	6.00

- 10 Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP 9-1-1 Number

Ware House	1	x	1	x	1.00	x	1	x	1	=		1.00
											Total	1.00
											Say	1.00

- 11 Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP 9-1-4 Number

Ware House	1	x	1	x	1.00	x	1	x	1	=		1.00
											Total	1.00
											Say	1.00

- 12 Supplying, erecting & marking DPMCB 6A to 32A, C-series with rated short -circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-6 Number

Ware House	1	x	1	x	1.00	x	1	x	1	=		1.00
											Total	1.00
											Say	1.00

- 13 Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-3 Number

Ware House	1	x	1	x	1.00	x	1	x	1	=		1.00
											Total	1.00
											Say	1.00

- 14 Supplying and erecting GI sheet 1.6 mm (16 SWG) having zinc coating of 350 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. 6-1-6 Square Metre

Ware House	1	x	1	x	1.00	x	1	x	1	=		1.00
											Total	1.00
											Say	1.00

- 15 Supplying and erecting marine (Waterproof) plywood 18/19 mm thick fixed to wall or on provided panel board with necessary materials such as screws, wall fasteners, supports, nut bolts etc. complete with compliance to IS 720:2010 Square Metre

Ware House	1	x	1	x	1.00	x	1	x	1	=		1.00
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Total 1.00
Say 1.00

- 16 Supplying & erecting triple pole and neutral distribution board (TPNDB), 3 pole/ 4 pole MCCB as incomer & outgoing SP MCB (12 poles) or TP MCB of 4 ways (12 poles), with door, 1.2mm thickness, surface/flush mounted, on iron/GI frame (vertical busbar type) as per specification no.SW-SWR/MCBDBI 5-4-15 Number

Ware House 1 x 1 x 1.00 x 1 x 1 = 1.00
Total 1.00
Say 1.00

- 17 Supplying & erecting G.I. pipe 'A' class 25 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-1 Running Meter

Ware House 2 x 1 x 1.00 x 1 x 1 = 2.00
Total 2.00
Say 2.00

- 18 Supplying & erecting G.I. pipe 'A' class 40 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-2 Running Meter

Ware House 1 x 1 x 2.00 x 1 x 1 = 2.00
Total 2.00
Say 2.00

- 19 Supplying and laying (including excavation of suitable width & depth up to 90 cm) 75 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete. 7-6-10 Running Meter

Ware House 1 x 1 x 2.00 x 1 x 1 = 2.00
Total 2.00
Say 2.00

- 20 Supplying & erecting 18guage M.S. Box powder coated (4"x4") 3 way for mains connection. MR Number

Ware House 1 x 1 x 1.00 x 1 x 1 = 1.00
Total 1.00
Say 1.00

- 21 Supplying & erecting single compression type brass cable glands for 3 to 4 core 6 sq mm /2 to 4 core 10 sq mm for XLPE armoured cable as per specification No.CB-GL 7-7-2 Number

Ware House 1 x 4 x 1.00 x 1 x 1 = 4.00
Total 4.00
Say 4.00



22	Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. 1-5-7									Number		
	Ware House	1	x	4	x	1.00	x	1	x	1	=	4.00
										Total		4.00
										Say		4.00
23	Point wiring for independent plug in 20 mm metal conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW 1-7-2									Number		
	Ware House	1	x	2	x	1.00	x	1	x	1	=	2.00
										Total		2.00
										Say		2.00
24	Wiring for plug on board with Switch socket surface/concealed type, copper wiring and earthing and with modular accessories as per specification No: WGPW/ CW 1-7-26									Number		
	Ware House	1	x	2	x	1.00	x	1	x	1	=	2.00
										Total		2.00
										Say		2.00
25	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-2									Running Meter		
	Ware House	1	x	10	x	1.00	x	1	x	1	=	10.00
										Total		10.00
										Say		10.00
26	Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-3									Running Meter		
	Ware House	1	x	6	x	1.00	x	1	x	1	=	6.00
										Total		6.00
										Say		6.00
27	Supplying and erecting modular type D.P. switch 32A with indicator, duly erected on provided plate and box with wiring connections complete. 1-6-8									Number		
	Ware House	1	x	1	x	1.00	x	1	x	1	=	1.00
										Total		1.00
										Say		1.00
28	Supplying, erecting and marking double pole isolator only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc.in provided distribution board. 5-3-14									Number		
	Ware House	1	x	1	x	1.00	x	1	x	1	=	1.00
										Total		1.00
										Say		1.00



29. Supplying & erecting 3W, 230V integral type LED Lamp suitable for B-22 / E- 27 base. 2-8-9									Number	
Ware House	1	x	2	x	1.00	x	1	x	1 =	2.00
									Total	2.00
									Say	2.00
30. Supplying and erecting IP65 and IK08 rated UV shielded polycarbonate waterproof and dustproof industrial grade LED fitting (4 feet) max. 36W with high transitivity diffuser with system lumens output of min. 4300 lumens , min. efficacy of 120 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., Ripple<5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50 , IP20 rated, including driver with auto cutoff & auto restart feature at 325V with end caps on PVC lock/wooden board with 3 years									Number	
Ware House	1	x	4	x	1.00	x	1	x	1 =	4.00
									Total	4.00
									Say	4.00
31. Supplying and erecting regular/ standard model ceiling fan of 900 /1050 mm. sweep complete erected in position as per specification no. FG-FN/CF 2-10-2									Number	
Ware House	1	x	1	x	1.00	x	1	x	1 =	1.00
									Total	1.00
									Say	1.00
32. Supplying and erecting ding dong / electronic musical type call bell with heavy duty coil suitable to operate on 230V A.C. supply erected on olished double wooden block/sunmica block of suitable size. 2-3-13									Square Meter	
Ware House	1	x	1	x	1.00	x	1	x	1 =	1.00
									Total	1.00
									Say	1.00
33. Supplying and erecting Street light bracket made from 25 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-1									Number	
Ware House	1	x	4	x	1.00	x	1	x	1 =	4.00
									Total	4.00
									Say	4.00
34. Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB/RCCB/RCBO complete erected on angle iron/GI frame. 5-4-13									Number	
Ware House	1	x	1	x	1.00	x	1	x	1 =	1.00
									Total	1.00
									Say	1.00
35. Supplying, erecting and marking four pole isolators only switch version of miniature circuit breakers of 40A in provided distribution board. 5-3-18									Number	
Ware House	1	x	1	x	1.00	x	1	x	1 =	1.00
									Total	1.00
									Say	1.00

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Rahuri, Dist. Ahmednagar



ESTIMATE

**Name of Work :- Proposed Construction of Processing Plant Shed For Shivmalhar Farmers
Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)**

Estimated Cost of Works (Rs.) :- 2895063.00

Rupees twenty-eight lakhs ninety-five thousand sixty-three and paise nil only



SAI CONSULTANT'S

Consulting Civil Engineer, Builders & Developers,
Approved Valuers, Chartered Engineer & Govt. Contractors.

Shop no.2, Shraddha Building, Gokul Colony,
Collage Road, Rahuri, Tal-Rahuri, Dist-A'Nagar.
Mo.9970253888,9552183333
email -saiconsultants333888@gmail.com

Ref no.

Date:-

Name of Work :- Proposed Construction of Processing Plant Shed For Shivmalhar
Farmers Producer Co.ltd, In Cat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

RECAPITUALTION SHEET

1	S.W.I - Processing Plant Shed Construction	Rs.	2275670.00
2	Add Royalty	Rs.	43034.00
3	Add Testing Charges	Rs.	44285.00
4	Add. 1.00 % Insurance	Rs.	22757.00
5	Add.18.00 % GST	Rs	409621.00
		Total Rs.	2795367.00
		A) Total Rs.	2795367.00
6	Sub Work No:-II Electrification	Rs.	84488.00
		Total Rs.	84488.00
7	Add.18.00 % GST On Electrical Work	Rs	15208.00
		B) Total Rs.	99696.00
		Grand Total (A+B) Rs.	2895063.00
		Say Rs.	2895063.00

Rupees twenty-eight lakhs ninety-five thousand sixty-three and paise nil only


Chartered Engineer
Gaurav Rajendra Bhaskar
B.E.(Civil) A.M.I.E.
Chartered Engineer
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Consulting Engineer
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Rahuri, Dist. Ahmednagar



Name of Work :- Proposed Construction of Processing Plant Shed For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

S.W.1 - Processing Plant Shed Construction

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
33.75	1	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m.beyond the building area & stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering Including shoring and strutting etc. complete. (LIFT UPTO 1.5 M.) By Mechanical Means	207.00	Cubic Metre	6986.25
20.25	2	Excavation for foundation in Hard murum in cluding removing the excavated material upto adistance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means	284.00	Cubic Metre	5751.00
50.98	3	Providing dry trap/ granite/ quartzite/ gneiss rubble stone soiling 15 cm to 20 cm thick including hand packing and compacting complete. Spec.No. : Bd.A.12 Page No. 264 ;	1765.18	Cubic Metre	89988.88
54.00	4	Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layersincluding watering and compacting etc. complete.	120.00	Cubic Metre	6480.00
83.96	5	Filling in plinth and floors with contractors material/ brought from outside and approved by Engineer in charge in layers of 15 cm to 20 cm including watering and compaction etc.complete.	1047.22	Cubic Metre	87924.59
17.52	6	Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)	2423.19	Cubic Metre	42454.29
18.71	7	Providing and laying Cast in situ/ Ready Mix cement concrete in M-10 of trap/granite/quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete ,with fully automatic microprocess or base dPLCwith SCADA enable dreversible Drum Type mixer/ concrete Batch mix plant (Panmixer) etc.complete. With fine aggregate (Crushed sand VSI Grade)	6271.09	Cubic Metre	117332.09



Quantity	I.No	Item of work	Rate	unit	Amount
6.48	8	Providing and laying in situ cement concrete of M-25 grade of trap / granite/quartzite/gneiss metal for R.C.C. work like raft, grillages, strips, foundations and footings of R.C.C.columns and steel stanchions including bailing-out water manually, including centering formwork of plywood / steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc complete. (Excluding reinforcement) The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. (Wooden planks / shuttering will not be allowed) Spec.No.:Bd.F.2 Page No. 298 /IS 456 (1978)	7719.90	Cubic Metre	50024.95
3.75	9	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	14399.90	Cubic Metre	53999.63
10.42	10	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction and roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	12869.24	Cubic Metre	134097.48
1.92	11	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	89703.00	Metric Tonne	172229.76



Quantity	I.No	Item of work	Rate	unit	Amount
5.11	12	Providing Brick masonry in cement mortal 1:6 using second Class Burnt Bricks in foundation and plinth of inner walls/ in plinth of external walls including bailing out water manually, striking joints on unexposed faces ,watering and scaffolding complete Bd. G. 1, Page No.313,	7847.47	Cubic Metre	40100.57
15.66	13	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	8086.47	Cubic Metre	126634.12
154.33	14	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	649.00	Square Metre	100160.17
7.20	15	Providing and fixing steel window of various sizes as per detailed drawing without hotdip zinc coating, with out ventilators, including fabricating/ glazing with plain/ obscured glass panels of approved type and quality, iron oxidised fixtures and fastenings, finishing with oil painting two coats complete (with guard bars 12 mm square at 10 cm c/c.)	4827.00	Square Metre	34754.40
154.33	16	Providing and applying white-wash in one coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	8.00	Square Metre	1234.64
154.33	17	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. (excluding the primer coat) etc. complete.	80.00	Square Metre	12346.40



Quantity	I.No	Item of work	Rate	unit	Amount
10.50	18	Providing and fixing rolling shutter fabricated from steel at hsofminimum thickness 0.9mm with lock plate of 3.15 mm thickness reinforced with 35x35x5mm angle section fitted with sliding bolts and handles for both sides, deep M.S.channel section of depth and thickness not less than 65mm and 3.15mm respectively with hold fastarr angements, M.S.Bracket plate 300x300x3.15mm minimum size and shape with square bar, suspension shaft of minimum 32mm diameter, hood cover of M.S. sheet not less than 0.9mm thickness and of any size attopand safety device sincluding mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade castir on or mild steel and one coat of redlead primer etc. complete.(I.S.62481979) (Without mechanical gear)	5308.00	Square Metre	55734.00
152.66	19	Providing and laying in situ cement concrete M20 with tremix treatment for 100 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.	838.72	Square Metre	128039.00
3.97	20	Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting fixing in position, Making riveted/ bolted/ welded connection and one coat of anti corrosive paint and over it 2 coats of oil painting approved quality and shade etc. complete.	119459.00	Metric Tonne	473774.39
404.79	21	Providing and fixing colour coated Zinalume (R) AZ 150 (min150 gms /sq.mt. total on each side) profiled sheets for roofing. The feed materialis manufactured out of nominal 0.45mm Base Metal Thickness (BMT) (0.5mm TCT), Hi-strength steel with min. 550 MP a yield strength, metallic hot dip coated with Aluminium- Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLOR BOND (R) steel quality super durable polyester paint coat (with in organic pigment). The paint shall have a total coating thickness of nominal 35um, comprising of nominal 25 um exterior coat on top surface and nominal 10um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtles quare flutingin the five panat nominal 180-250 mm center-to-center. The endrib shall be designed for anti-capillary groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. Including fasteners with min. fastened with min. 25um Zinc-Tinalloy coated, Hexhead, self-drilling screw etc. complete. (weight of profile 4.52Kilogram / Square Metre).	1173.00	Square Metre	474818.67



Quantity	I.No	Item of work	Rate	unit	Amount
4.00	22	Turbo ventilator 24" MATERIAL RATES FOR SSR For Year 2021-22,Page no. 374, Building (Bd-R : Roofing and ceiling)	9702.00	No.	38808.00
13.80	23	Providing and fixing UPVC Roof made up of 3 layers roofing material of thickness 2mm having width of 1130mm and of required Length having Tensile strength not less than 330Kilo gram/ cm ² , including fastening with self drilling screw having washers made of stainless steel etc. complete.	1594.00	Square Metre	21997.20
				Total Rs.	2275670.48
			Part A)	Say Rs.	2275670.00
58.40	24	Royalty Charges for sand	237.37	Cum	13862.41
134.94		Royalty Charges for Rubble and HM	216.18	Cum	29171.33
				Total Rs.	43033.74
			Part B)	Say Rs.	43034.00

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Name of Work :- Proposed Construction of Processing Plant Shed For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

S.W.1 - Processing Plant Shed Construction

MEASUREMENT SHEET

- I.No.
- Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m. beyond the building area & stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (LIFT UPTO 1.5 M.) By Mechanical Means

For RCC Coloumn Type C1	10	x	1.50	x	1.50	x	1.50	=	33.75	Cum
									Total Qty	= 33.75 Cum
 - Excavation for foundation in Hard murum including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means

For RCC Coloumn Type C1	10	x	1.50	x	1.50	x	0.90	=	20.25	Cum
									Total Qty	= 20.25 Cum
 - Providing dry trap/ granite/ quartzite/ gneiss rubble stone soiling 15 cm to 20 cm thick including hand packing and compacting complete. Spec.No. : Bd.A.12 Page No. 264 ;

For RCC Coloumn Type C1	10	x	1.50	x	1.50	x	0.23	=	5.18	Cum
Processing Plant Shed Plinth	1	x	16.12	x	9.47	x	0.30	=	45.80	
									Total Qty	= 50.98 Cum
 - Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layers including watering and compacting etc. complete.

Qty As per Exavated Quatity									=	54.00	cum
Item no.1 & 2											
									Total Qty	= 54.00 cum	
 - Filling in plinth and floors with contractors material/ brought from outside and approved by Engineer in charge in layers of 15 cm to 20 cm including watering and compaction etc. complete.

Processing Plant Shed Plinth	1	x	16.12	x	9.47	x	0.55	=	83.96	cum
									Total Qty	= 83.96 cum
 - Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)

Processing Plant Shed Plinth	1	x	16.12	x	9.47	x	0.10	=	15.27	cum
For RCC Coloumn Type C1	10	x	1.50	x	1.50	x	0.10	=	2.25	
									Total Qty	= 17.52 cum



- 7 Providing and laying Cast in situ/ Ready Mix cement concrete in M-10 of trap/granite/quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete ,with fully automatic microprocess or base dPLCwith SCADA enable dreversible Drum Type mixer/ concrete Batch mix plant (Panmixer) etc.complete. With fine aggregate (Crushed sand VSI Grade)

For RCC Coloumn Type C1	10	x	1.50	x	1.50	x	0.10	=	2.25	cum
Processing Plant Shed Plinth	1	x	16.58	x	9.93	x	0.10	=	16.46	
Total Qty =									18.71	cum

- 8 Providing and laying in situ cement concrete of M-25 grade of trap / granite/quartzite/gneiss metal for R.C.C. work like raft, grillages, strips, foundations and footings of R.C.C.columns and steel stanchions including bailing-out water manually, including centering formwork of plywood / steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc complete. (Excluding reinforcement) The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. (Wooden planks / shuttering will not be allowed) Spec.No.:Bd.F.2 Page No. 298 /IS 456 (1978)

For RCC Coloumn Type C1	10	x	1.20	x	1.20	x	0.45	=	6.48	cum
Total Qty =									6.48	cum

- 9 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)

For RCC Coloumn Type C1	10	x	0.23	x	0.45	x	3.62	=	3.75	cum
Total Qty =									3.75	cum

- 10 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)

Long Wall Ground Beams	6	x	5.22	x	0.23	x	0.60	=	4.32	
Short Wall Ground Beams	4	x	4.40	x	0.23	x	0.45	=	1.82	
Long Wall Lintel Beams Over	6	x	5.22	x	0.23	x	0.38	=	2.74	
Short Wall Lintel Beams BBM	4	x	4.40	x	0.23	x	0.38	=	1.54	
Total Qty =									10.42	cum

- 11 Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.

For RCC Footing	6.48	@	80.00	Kg	=	518.40	Kg
For RCC Coloumn	3.75	@	95.00	Kg	=	356.25	Kg



For RCC Beam	10.42	@	100.00	Kg	=	1042.00	Kg
				Total Qty	=	1916.65	Kg
				Say	=	1.92	MT

- 12 Providing Brick masonry in cement mortal 1.6 using second Class Burnt Bricks in foundation and plinth of inner walls/ in plinth of external walls including bailing out water manually, striking joints on unexposed faces ,watering and scaffolding complete Bd. G. 1, Page No.313,

Long Wall Ground Beams	6	x	5.22	x	0.23	x	0.40	=	2.88	cum
Short Wall Ground Beams	4	x	4.40	x	0.23	x	0.55	=	2.23	
							Total	=	5.11	
							Total Qty	=	5.11	cum

- 13 Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete

Long Wall Ground Beams	6	x	5.22	x	0.23	x	2.10	=	15.13	cum
Short Wall Ground Beams	4	x	4.40	x	0.23	x	2.10	=	8.50	
							Total	=	23.63	
Deduction										
Deduction For RS	2	x	2.10	x	0.23	x	2.10	=	2.03	
Deduction For Long side Lintel	6	x	5.22	x	0.23	x	0.38	=	2.74	
Room Deduction For Short side Lintel	4	x	4.40	x	0.23	x	0.38	=	1.54	
Room Deduction For WI	4	x	1.50	x	0.23	x	1.20	=	1.66	
							Total	=	7.97	
							Total	=	15.66	
							Total Qty	=	15.66	cum

- 14 Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.

Long Wall up to Plinth	2	x	16.58	x	1.00	=	33.16	Sqm	
Short Wall up to Plinth	2	x	9.93	x	1.00	=	19.86		
Long Wall Above Plinth	2	x	16.58	x	2.52	=	83.40		
Short Wall Above Plinth	2	x	9.93	x	2.52	=	49.95		
							Total	186.37	
Deduction									
Deduction For RS Both Side	4	x	2.10	x	2.10	=	17.64		
Deduction For WI	8	x	1.50	x	1.20	=	14.40		
							Total	32.04	
							Total Qty	= 154.33	Sqm

- 15 Providing and fixing steel window of various sizes as per detailed drawing without hotdip zinc coating, with out ventilators, including fabricating/ glazing with plain/ obscured glass panels of approved type and quality, iron oxidised fixtures and fastenings, finishing with oil painting two coats complete (with guard bars 12 mm square at 10 cm c/c.)



W1	4	x	1.50		x	1.20	=	7.20	Sqm
					Total Qty		=	7.20	Sqm
16 Providing and applying white-wash in one coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.									
Qty.As per Item no.14							=	154.33	Sqm
					Total Qty		=	154.33	Sqm
17 Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. (excluding the primer coat) etc. complete.									
Qty.As per Item no.14							=	154.33	Sqm
					Total Qty		=	154.33	Sqm
18 Providing and fixing rolling shutter fabricated from steell at hsofminimum thickness 0.9mm with lock plate of 3.15 mm thickness reinforced with 35x35x5mm angle section fitted with sliding bolts and handles for both sides, deep M.S.channel section of depth and thickness not less than 65mm and 3.15mm respectively with hold fastarr angements, M.S.Brace plate 300x300x3.15mm minimum size and shape with square bar, suspension shaft of minimum 32mm diameter, hood cover of M.S. sheet not less than 0.9mm thickness and of any size atopand safety device sincluding mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade castir on or mild steel and one coat of redlead primer etc. complete.(I.S.62481979) (Without mechanical gear)									
RS	2	x	2.10		x	2.50	=	10.50	Sqm
					Total Qty		=	10.50	Sqm
19 Providing and laying in situ cement concrete M20 with tremix treatment for 100 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.									
Processing Plant Shed Flooring	1	x	16.12	x	9.47		=	152.66	Sqm
					Total Qty		=	152.66	Sqm
20 Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting fixing in position, Making riveted/ bolted/ welded connection and one coat of anti corrosive paint and over it 2 coats of oil painting approved quality and shade etc. complete.									
Total No. of Truss With,Rafter Purlin,Vertical Member,Runner & etc.	4	x	830.00	x			=	3320.00	MT
Varandah Canopy	2	x	323.00	x			=	646.00	
								3966.00	
					Total Qty		=	3.97	MT



- 21 Providing and fixing colour coated Zinalume (R) AZ 150 (min 150 gms/sq.mt. total on each side) profiled sheets for roofing. The feed material is manufactured out of nominal 0.45mm Base Metal Thickness (BMT) (0.5mm TCT), Hi-strength steel with min. 550 MP a yield strength, metallic hot dip coated with Aluminium- Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLOR BOND (R) steel quality super durable polyester paint coat (with inorganic pigment). The paint shall have a total coating thickness of nominal 35um, comprising of nominal 25 um exterior coat on top surface and nominal 10um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtle square fluting in the five panat nominal 180-250 mm center-to-center. The endrib shall be designed for anti-capillary groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. Including fasteners with min. fastened with min. 25um Zinc-Tin alloy coated, Hexhead, self-drilling screw etc. complete. (weight of profile 4.52 Kilogram / Square Metre).

Roof Slop	2	x	6.30	x	16.58	=	208.91	Sqm
Verandah	2	x	2.50	x	2.00	=	10.00	
Vertical Sheets Long Wall	2	x	16.58	x	3.70	=	122.69	
Vertical Sheets Short Wall	2	x	9.93	x	3.70	=	73.48	
Vertical Gable Wall	2	x	4.97	x	1.50	=	14.91	
						Total	=	429.99
Deduction For Turbo Ventilator & Sky light Upvc roof	4.00	x	3.00	x	1.15	=	13.80	
Deduction For RS	2.00	x	2.10	x	1.00	=	4.20	
WI	4.00	x	1.50	x	1.20	=	7.20	
						Total	=	25.20
						Net Qty	=	404.79
								Rmt

- 22 Turbo ventilator 24" MATERIAL RATES FOR SSR For Year 2021-22, Page no. 374, Building (Bd-R : Roofing and ceiling)

At Roof Level Ventilation						=	4.00	No.
						Total Qty	=	4.00
								No.

- 23 Providing and fixing UPVC Roof made up of 3 layers roofing material of thickness 2mm having width of 1130mm and of required Length having Tensile strength not less than 330Kilo gram/ cm², including fastening with self drilling screw having washers made of stainless steel etc. complete.

	4.00	x	3.00	x	1.15	=	13.80	Sqm
						Total Qty	=	13.80
								Sqm

- 24 Royalty Charges

	Material		Qty		Qty of Material		Cum		
6	Providing and filling in the foundation	1	x	17.52	x	1.000	=	17.52	
7	Providing and laying Cast in situ/ Rea	1	x	18.71	x	0.470	=	8.79	
8	Providing and laying in situ cement c	1	x	6.48	x	0.425	=	2.75	
9	Providing and laying Cast in situ/Rea	1	x	3.75	x	0.425	=	1.59	
10	Providing second class Burnt Brick n	1	x	10.42	x	0.425	=	4.43	
14	Providing sand faced plaster external	1	x	154.33	x	0.033	=	5.09	
12	Providing Brick masonry in cement n	1	x	5.11	x	0.320	=	1.64	
13	Providing second class Burnt Brick n	1	x	15.66	x	0.320	=	5.01	
14	Providing sand faced plaster external	1	x	154.33	x	0.033	=	5.09	
19	Providing and laying in situ cement c	1	x	152.66	x	0.043	=	6.49	
						Sand	Total Qty	=	58.40
									Cum
3	Providing dry trap/ granite/ quartzite/	1	x	50.98	x	1.00	=	50.98	
5	Filling in plinth and floors with contr	1	x	83.96	x	1.00	=	83.96	
						Hm and Rubble	Total Qty	=	134.94
									Cum

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Gaurav Rajendra Bhaskar
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Page 5

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S.W.1 - Processing Plant Shed Construction

RATE ANALYSIS AS PER PWD SSR 2022-23 For MAHARASTRA STATE

Sr. No.	Description of Item	S.S.R. Page No. & It. No.	Basic Rate	Add extra lead charges for.....							Total Lead charges	Gross Rate
				Rubble/Cr. Metal	Sand	Cr. Metal	Murum	Cement/Steel				
1	Excavation for foundation in earth, soil of all types, sand, gravel	21.02	207.00	383.18	263.19	313.21	252.22	5.22		0.00	207.00	
2	Excavation for foundation in Hard murum in cluding removal of	21.08	284.00							0.00	284.00	
3	Providing dry trap/ granite/ quartzite/ gneiss rubble stone soil	21.38	1382.00	1.00						383.18	1765.18	
4	Filling in plinth and floors with approved excavated material	21.36	120.00							0.00	120.00	
5	Filling in plinth and floors with contractors material/ brought	21.37	795.00				1.00	252.22		252.22	1047.22	
6	Providing and filling in the foundation with sand of approved	21.39	2160.00		1.00	263.19				263.19	2423.19	
7	Providing and laying Cast in situ/ Ready Mix cement concrete	24.01	5830.00		0.47	123.70	0.940	294.42	4.40	22.97	6271.09	
8	Providing and laying in situ cement concrete of M-25 grade	25.13	7287.00		0.425	111.86	0.90	281.89	7.50	39.15	7719.90	
9	Providing and laying Cast in situ/Ready Mix cement concrete	25.33	13967.00		0.425	111.86	0.90	281.89	7.50	39.15	14399.90	
10	Providing and laying Cast in situ/Ready Mix cement concrete	25.52	12452.00		0.425	111.86	0.85	266.23	7.50	39.15	12869.24	
11	Providing and fixing in position TMT - FE - 500 bar reinforcement	26.33	89703.00							0.00	89703.00	
12	Providing Brick masonry in cement mortar 1.6 using second	27.01	7755.00		0.32	84.22			1.58	8.25	7847.47	
13	Providing second class Burnt Brick masonry with conventio	27.05	7994.00		0.32	84.22			1.58	8.25	8086.47	
14	Providing sand faced plaster externally in cement mortar us	32.11	639.00		0.033	8.69			0.25	1.31	649.00	
15	Providing and fixing steel window of various sizes as per de	39.20	4827.00							0.00	4827.00	
16	Providing and applying white-wash in one coat on old/ new	36.02	8.00							0.00	8.00	
17	Providing and applying plastic emulsion paint of approved c	36.12	80.00							0.00	80.00	
18	Providing and fixing rolling shutter fabricated from steel at	39.25	5308.00							0.00	5308.00	
19	Providing and laying in situ cement concrete M20 with trem	33.30	796.00		0.043	11.19	0.089	27.88	0.70	3.65	838.72	
20	Providing structural steel work in trusses, other similar trus	23.04	119459.00							0.00	119459.00	
21	Providing and fixing colour coated Zincalume (R) AZ 150 (38.34	1173.00							0.00	1173.00	
22	Turbo ventilator 24" MATERIAL RATES FOR SSR For Year 2021-22, Page no. 374, Building (Bd-R : Roofing and ceiling)	SSR 22-23, Page no. 374 I.no.42	9702.00							0.00	9702.00	
23	Providing and fixing UPVC Roof made up of 3 layers roofit	38.37	1594.00							0.00	1594.00	
24	Royalty Charges for Rubble and HM		216.18							0.00	216.18	



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Name of Work :- Proposed Construction of Processing Plant Shed For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

S.W.I - Processing Plant Shed Construction

Appendix - I

Lead Chart

Sr. No.	Description	Rubble	Murum	Crush metal	Crush metal 40 mm above	Sand	Cement	Steel	
1	2	3	4	4	4	5	6	7	
	Source	Restricted	Local	Restricted	Restricted	Local	Local	Local	
1	Average lead as per Quarry chart in km	8.00	5.00	8.00	8.00	5.00	1.00	1.00	
2	Lead charges	383.18	252.22	313.21	300.16	263.19	104.39	104.39	
4	Extra lead charges	383.18	252.22	313.21	300.16	263.19	104.39	104.39	
5	Extra lead charges per bag of cement						5.22		

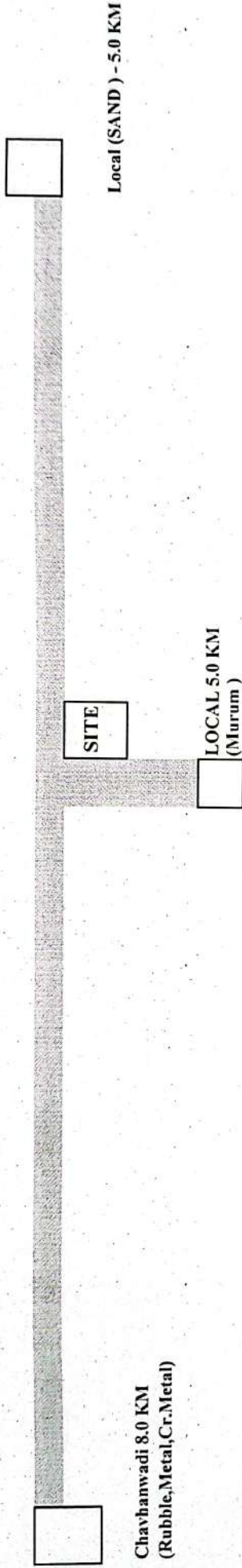
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Name of Work :- Proposed Construction of Processing Plant Shed For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist-Satara (MH)

Quarry Chart



LEAD STATEMENT

Material	Quarry	Lead in Km.
Rubble	Chavhanwadi	8.00
Metal	Chavhanwadi	8.00
Crushed Metal	Chavhanwadi	8.00
Murum	Local	5.00
Sand	Local	5.00

CERTIFICATE.

- 1 Certified that the quarries shown on the quarry chart for metal & murum are inspected by me & they are nearest & economical to the work & contain sufficient & good quality material required for the work.
- 2 Certified that lead for quarries shown and accounted in the estimate is as per nearest route.
- 3 Certified that leads considered are found to be correct.

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Name of Work :- Proposed Construction of Processing Plant Shed For Shivinalhar Farmers Producer Co.ltd,In Gat no.13/1,At-Padegaon, Tq-Khandala, Dist-Satara (MH)

S.W.I - Processing Plant Shed Construction

TESTING CHART

Item	Qty	Soil/HM	Bitumen	Metal	Agg.	Tests	Frequency	Total Test	At Site	At Lab	Rate	Amt
Concrete												
		Cement	Sand		Agg							
M 10	18.71	4.12	8.79		17.59	Comp. Strength- Cube		9	5	4	690.00	2760.00
M 20	15.27	5.72	0.65		13.74							
M 25	20.65	7.74	0.88		18.59							
Total	54.63	17.58	10.32		49.91	Crush Metal-Basic Test	1/1000 Cum	3	2	1	2600.00	2600.00
		MT	Cum		Cum	Gradation	1/100 Cum	3	2	1	745.00	745.00
						Comboned Flakiness & Elongation of single metal	1/400 Cum	2	1	1	850.00	850.00
						Cement-Fineness, consistency, Setting time, Compressive strength, Specific Gravity	1/50 MT	1	1	1	3770.00	3770.00
						Sand-Fineness Modulus, Silt Content	1/ Source	1	1	1	1380.00	1380.00
						Water Absorption (Set of 5 Bricks), Compressive Strength (Set of 5 Bricks), Efflorescence (Set of 5 Bricks).	Set of 5 Bricks	1	1	1	2175.00	2175.00
						GSB Mix Design./Cement Treated Sub Base (CTSB)		2	1	1	16250.00	16250.00
						Concrete Mix Design (With all Tests on basic materials)		2	1	1	13755.00	13755.00
											Total	44285.00



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Name of Work :- Proposed Construction of Processing Plant Shed For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

Sub Work No:-II Electrification

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
12.00	1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 6 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL 7-1-9	137.00	Running Meter	1644.00
5.00	2	Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR 16-1-1	161.00	Running Meter	805.00
5.00	3	Making trench in Hard murum/Tar road having 0.75 m depth and minimum 0.3mtr width as per IS for laying provided cables up to voltage level 1.1Kv cable complete as per specification No. CW-EXN-CTR 7-2-5	199.00	Running Meter	995.00
16.00	4	Supplying and erecting mains with 3x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW 5-12-1	93.00	Running Meter	1488.00
1.00	5	Supplying & erecting CRCA sheet metal enclosures of 1.2mm thickness with 10A, 2 pin plug & earth socket and 10A, 3 pin plug top with 10A single pole MCB having rated short - circuit breaking capacity (Icn) 10kA complete erected on angle iron / GI frame. 5-4-10	800.00	Number	800.00
12.00	6	Point wiring for light/fan/bell in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW 1-7-3	1929.00	Number	23148.00
2.00	7	Supplying & erecting 10-12W, 230V integral type LED Lamp suitable for B-22 /E-27 base. 2-8-11	230.00	Number	460.00



Quantity	I.No	Item of work	Rate	unit	Amount
4.00	8	Supplying and erecting integrated LED street light fitting 18 to 22W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 1800 Lumens, min. efficacy of 100 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140- 270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FGODF/ FLS2. 2-4-1	1929.00	Number	7716.00
2.00	9	Supplying and erecting Street light bracket made from 40 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-2	736.00	Number	1472.00
1.00	10	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP 9-1-1	4714.00	Number	4714.00
1.00	11	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP 9-1-4	1500.00	Number	1500.00
1.00	12	Supplying, erecting & marking DPMCB 6A to 32A, C-series with rated short -circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-6	535.00	Number	535.00
1.00	13	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-3	173.00	Number	173.00
1.00	14	Supplying and erecting GI sheet 1.6 mm (16 SWG) having zinc coating of 350 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. 6-1-6	2560.00	Square Metre	2560.00



Quantity	I.No	Item of work	Rate	unit	Amount
1.00	15	Supplying and erecting marine (Waterproof) plywood 18/19 mm thick fixed to wall or on provided panel board with necessary materials such as screws, wall fasteners, supports, nut bolts etc. complete with compliance to IS 720:2010 6-1-14	1471.00	Square Metre	1471.00
1.00	16	Supplying & erecting triple pole and neutral distribution board (TPNDB), 3 pole/ 4 pole MCCB as incomer & outgoing SP MCB (12 poles) or TP MCB of 4 ways (12 poles), with door, 1.2mm thickness, surface/flush mounted, on iron/GI frame (vertical busbar type) as per specification no.SW-SWR/MCBDB1 5-4-15	6568.00	Number	6568.00
1.00	17	Supplying & erecting G.I. pipe 'A' class 25 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-1	217.00	Running Meter	217.00
6.00	18	Supplying & erecting G.I. pipe 'A' class 40 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-2	337.00	Running Meter	2022.00
2.00	19	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 75 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete. 7-6-10	241.00	Running Meter	482.00
2.00	20	Supplying & erecting 18 gauge M.S. Box powder coated (4"x4") 3 way for mains connection. MR	500.00	Number	1000.00
4.00	21	Supplying & erecting single compression type brass cable glands for 3 to 4 core 6 sq mm /2 to 4 core 10 sq mm for XLPE armoured cable as per specification No.CB-GL 7-7-2	87.00	Number	348.00
2.00	22	Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. 1-5-7	39.00	Number	78.00
2.00	23	Point wiring for independent plug in 20 mm metal conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW 1-7-2	941.00	Number	1882.00



Quantity	I.No	Item of work	Rate	unit	Amount
2.00	24	Wiring for plug on board with Switch socket surface/concealed type, copper wiring and earthing and with modular accessories as per specification No: WGPW/ CW 1-7-26	386.00	Number	772.00
10.00	25	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-2	62.00	Running Meter	620.00
8.00	26	Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-3	89.00	Running Meter	712.00
1.00	27	Supplying and erecting modular type D.P. switch 32A with indicator, duly erected on provided plate and box with wiring connections complete. 1-6-8	210.00	Number	210.00
1.00	28	Supplying, erecting and marking double pole isolator only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc.in provided distribution board. 5-3-14	310.00	Number	310.00
2.00	29	Supplying & erecting 3W, 230V integral type LED Lamp suitable for B-22 / E- 27 base. 2-8-9	126.00	Number	252.00
4.00	30	Supplying and erecting IP65 and IK08 rated UV shielded polycarbonate waterproof and dustproof industrial grade LED fitting (4 feet) max. 36W with high transitivity diffuser with system lumens output of min. 4300 lumens , min. efficacy of 120 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., Ripple<5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50 , IP20 rated, including driver with auto cutoff & auto restart feature at 325V with end caps on PVC lock/wooden board with 3 years warranty. 2-2-1	3396.00	Number	13584.00
1.00	31	Supplying and erecting regular/ standard model ceiling fan of 900 /1050 mm. sweep complete erected in position as per specification no. FG-FN/CF 2-10-2	2092.00	Square Meter	2092.00



Quantity	I.No	Item of work	Rate	unit	Amount
1.00	32	Supplying and erecting ding dong / electronic musical type call bell with heavy duty coil suitable to operate on 230V A.C. supply erected on olished double wooden block/sunmica block of suitable size. 2-3-13	140.00	Number	140.00
4.00	33	Supplying and erecting Street light bracket made from 25 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-1	655.00	Number	2620.00
1.00	34	Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB/RCCB/RCBO complete erected on angle iron/GI frame. 5-4-13	400.00	Number	400.00
1.00	35	Supplying, erecting and marking four pole isolators only switch version of miniature circuit breakers of 40A in provided distribution board. 5-3-18.	698.00	Number	698.00
				Total Rs.	84488.00
			Part A)	Say Rs.	84488.00

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Name of Work :- Proposed Construction of Processing Plant Shed For Shivmalhar Farmers Producer Co.ltd, In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

Sub Work No:-III Electrification

MEASUREMENT SHEET

Item No.	Description of Items	NO.	LENTH	BREATH	DEPTH	TOTAL	UNIT						
1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 6 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL 7-1-9						Running Meter						
	Processing Plant Shed	1	x	1	x	12.00	x	1	x	1	=	12.00	
												Total	12.00
												Say	12.00
2	Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR 16-1-1											Running Meter	
	Processing Plant Shed	1	x	1	x	5.00	x	1	x	1	=	5.00	
												Total	5.00
												Say	5.00
3	Making trench in Hard murum/Tar road having 0.75 m depth and minimum 0.3mtr width as per IS for laying provided cables up to voltage level 1.1Kv cable complete as per specification No. CW-EXN-CTR 7-2-5											Number	
	Processing Plant Shed	1	x	1	x	5.00	x	1	x	1	=	5.00	
												Total	5.00
												Say	5.00
4	Supplying and erecting mains with 3x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW 5-12-1											Running Meter	
	Processing Plant Shed	1	x	1	x	16.00	x	1	x	1	=	16.00	
												Total	16.00
												Say	16.00
5	Supplying & erecting CRCA sheet metal enclosures of 1.2mm thickness with 10A, 2 pin plug & earth socket and 10A, 3 pin plug top with 10A single pole MCB having rated short - circuit breaking capacity (Icn) 10kA complete erected on angle iron / GI frame. 5-4-10											Number	
	Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00	
												Total	1.00
												Say	1.00
6	Point wiring for light/fan/bell in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW 1-7-3											Number	
	Processing Plant Shed	1	x	12	x	1.00	x	1	x	1	=	12.00	
												Total	12.00
												Say	12.00
7	Supplying & erecting 10-12W, 230V integral type LED Lamp suitable for B-22 /E-27 base. 2-8-11											Number	
	Processing Plant Shed	1	x	2	x	1.00	x	1	x	1	=	2.00	
												Total	2.00



Say 2.00

- 8 Supplying and erecting integrated LED street light fitting 18 to 22W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 1800 Lumens, min. efficacy of 100 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140- 270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FGODF/ FLS2. 2-4-1 Number

Processing Plant Shed	2	x	2	x	1.00	x	1	x	1	=	4.00
											Total
											4.00
											Say
											4.00

- 9 Supplying and erecting Street light bracket made from 40 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-2 Number

Processing Plant Shed	1	x	2	x	1.00	x	1	x	1	=	2.00
											Total
											2.00
											Say
											2.00

- 10 Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP 9-1-1 Number

Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
											Total
											1.00
											Say
											1.00

- 11 Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP 9-1-4 Number

Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
											Total
											1.00
											Say
											1.00

- 12 Supplying, erecting & marking DPMCB 6A to 32A, C-series with rated short -circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-6 Number

Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
											Total
											1.00
											Say
											1.00

- 13 Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-3 Number

Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
											Total
											1.00
											Say
											1.00

- 14 Supplying and erecting GI sheet 1.6 mm (16 SWG) having zinc coating of 350 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. 6-1-6 Square Metre

Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
											Total
											1.00
											Say
											1.00



15	Supplying and erecting marine (Waterproof) plywood 18/19 mm thick fixed to wall or on provided panel board with necessary materials such as screws, wall fasteners, supports, nut bolts etc. complete with									Square Metre	
	Processing Plant Shed	1	x	1	x	1.00	x	1	x	1 =	1.00
										Total	1.00
										Say	1.00
16	Supplying & erecting triple pole and neutral distribution board (TPNDB), 3 pole/ 4 pole MCCB as incomer & outgoing SP MCB (12 poles) or TP MCB of 4 ways (12 poles), with door, 1.2mm thickness, surface/flush mounted, on iron/GI frame (vertical busbar type) as per specification no.SW-SWR/MCBDBI 5-4-15									Number	
	Processing Plant Shed	1	x	1	x	1.00	x	1	x	1 =	1.00
										Total	1.00
										Say	1.00
17	Supplying & erecting G.I. pipe 'A' class 25 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-1									Running Meter	
	Processing Plant Shed	1	x	1	x	1.00	x	1	x	1 =	1.00
										Total	1.00
										Say	1.00
18	Supplying & erecting G.I. pipe 'A' class 40 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-2									Running Meter	
	Processing Plant Shed	1	x	6	x	1.00	x	1	x	1 =	6.00
										Total	6.00
										Say	6.00
19	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 75 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete. 7-6-10									Running Meter	
	Processing Plant Shed	2	x	1	x	1.00	x	1	x	1 =	2.00
										Total	2.00
										Say	2.00
20	Supplying & erecting 18guage M.S. Box powder coated (4"x4") 3 way for mains connection. MR									Number	
	Processing Plant Shed	1	x	1	x	2.00	x	1	x	1 =	2.00
										Total	2.00
										Say	2.00
21	Supplying & erecting single compression type brass cable glands for 3 to 4 core 6 sq mm /2 to 4 core 10 sq mm for XLPE armoured cable as per specification No.CB-GL 7-7-2									Number	
	Processing Plant Shed	1	x	4	x	1.00	x	1	x	1 =	4.00
										Total	4.00
										Say	4.00



22	Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. 1-5-7									Number		
	Processing Plant Shed	1	x	2	x	1.00	x	1	x	1	=	2.00
										Total		2.00
										Say		2.00
23	Point wiring for independent plug in 20 mm metal conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW 1-7-2									Number		
	Processing Plant Shed	1	x	2	x	1.00	x	1	x	1	=	2.00
										Total		2.00
										Say		2.00
24	Wiring for plug on board with Switch socket surface/concealed type, copper wiring and earthing and with modular accessories as per specification No: WGPW/ CW 1-7-26									Number		
	Processing Plant Shed	1	x	2	x	1.00	x	1	x	1	=	2.00
										Total		2.00
										Say		2.00
25	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-2									Running Meter		
	Processing Plant Shed	1	x	10	x	1.00	x	1	x	1	=	10.00
										Total		10.00
										Say		10.00
26	Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-3									Running Meter		
	Processing Plant Shed	1	x	8	x	1.00	x	1	x	1	=	8.00
										Total		8.00
										Say		8.00
27	Supplying and erecting modular type D.P. switch 32A with indicator, duly erected on provided plate and box with wiring connections complete. 1-6-8									Number		
	Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
										Total		1.00
										Say		1.00
28	Supplying, erecting and marking double pole isolator only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc.in provided distribution board. 5-3-14									Number		
	Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
										Total		1.00
										Say		1.00
29	Supplying & erecting 3W, 230V integral type LED Lamp suitable for B-22 / E- 27 base. 2-8-9									Number		
	Processing Plant Shed	1	x	2	x	1.00	x	1	x	1	=	2.00
										Total		2.00



Say 2.00

- 30 Supplying and erecting IP65 and IK08 rated UV shielded polycarbonate waterproof and dustproof industrial grade LED fitting (4 feet) max. 36W with high transitivity diffuser with system lumens output of min. 4300 lumens, min. efficacy of 120 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., Ripple<5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, IP20 rated, including driver with auto cutoff & auto restart feature at 325V with end caps on PVC lock/wooden board with 3 years warranty. 2-2-1 Number

Processing Plant Shed	1	x	4	x	1.00	x	1	x	1	=	4.00
									Total		4.00
									Say		4.00

- 31 Supplying and erecting regular/ standard model ceiling fan of 900 /1050 mm. sweep complete erected in position as per specification no. FG-FN/CF 2-10-2 Number

Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total		1.00
									Say		1.00

- 32 Supplying and erecting ding dong / electronic musical type call bell with heavy duty coil suitable to operate on 230V A.C. supply erected on polished double wooden block/sunmica block of suitable size. 2-3-13 Square Meter

Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total		1.00
									Say		1.00

- 33 Supplying and erecting Street light bracket made from 25 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-1

Processing Plant Shed	1	x	4	x	1.00	x	1	x	1	=	4.00
									Total		4.00
									Say		4.00

- 34 Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB/RCCB/RCBO complete erected on angle iron/GI frame. 5-4-13 Number

Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total		1.00
									Say		1.00

- 35 Supplying, erecting and marking four pole isolators only switch version of miniature circuit breakers of 40A in provided distribution board. 5-3-18 Number

Processing Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total		1.00
									Say		1.00

Gaurav Rajendra Bhaska
Chartered Engineer
Gaurav Rajendra Bhaska
B.E.(Civil) A.M.I.E.
Chartered Engineer
AM3023322

Sadha
Consulting Engineer
SAI CONSULTANT
Consulting Civil Engineer
Rahuri, Dist. Ahmednagar

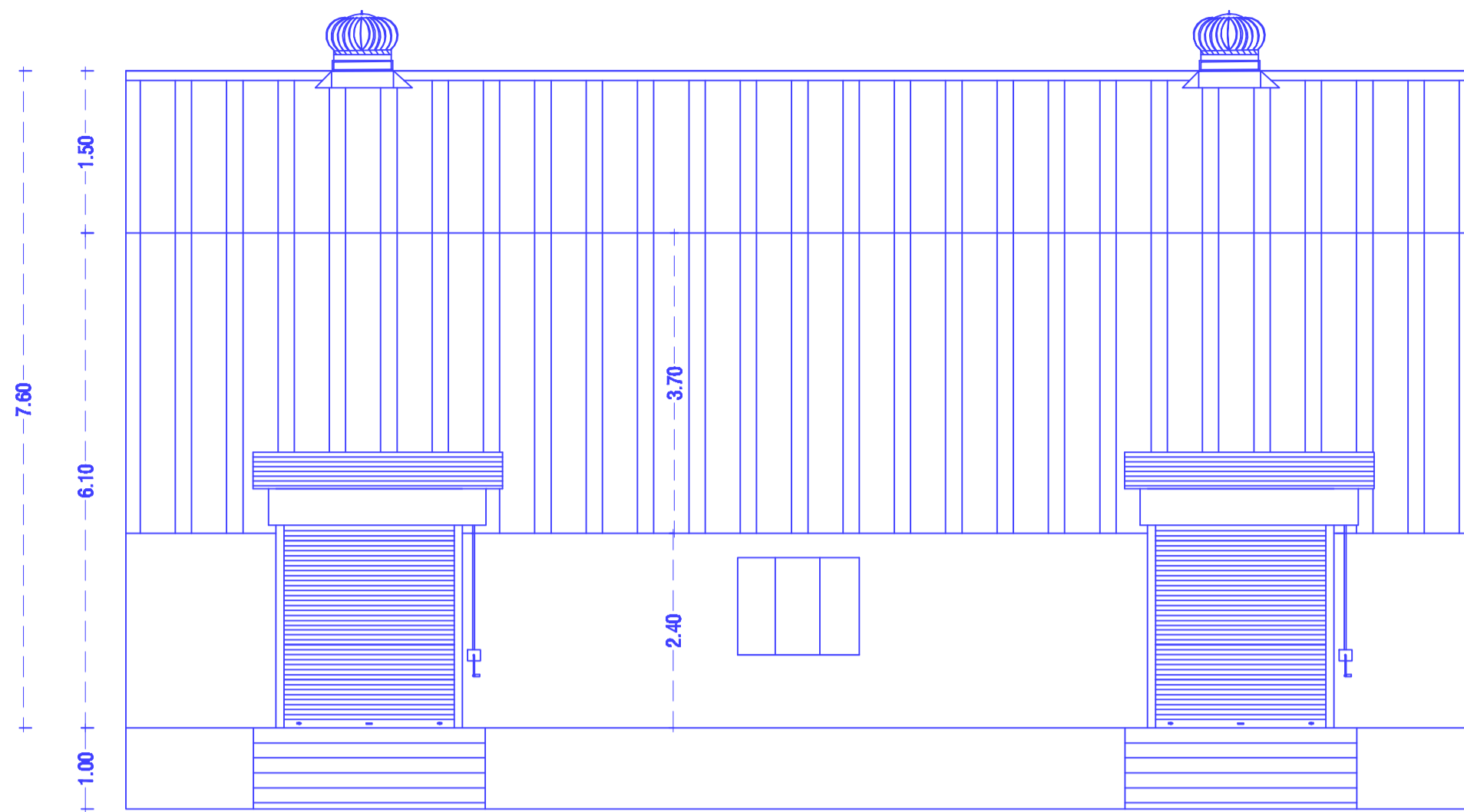


PROCESSING PLANT SHED

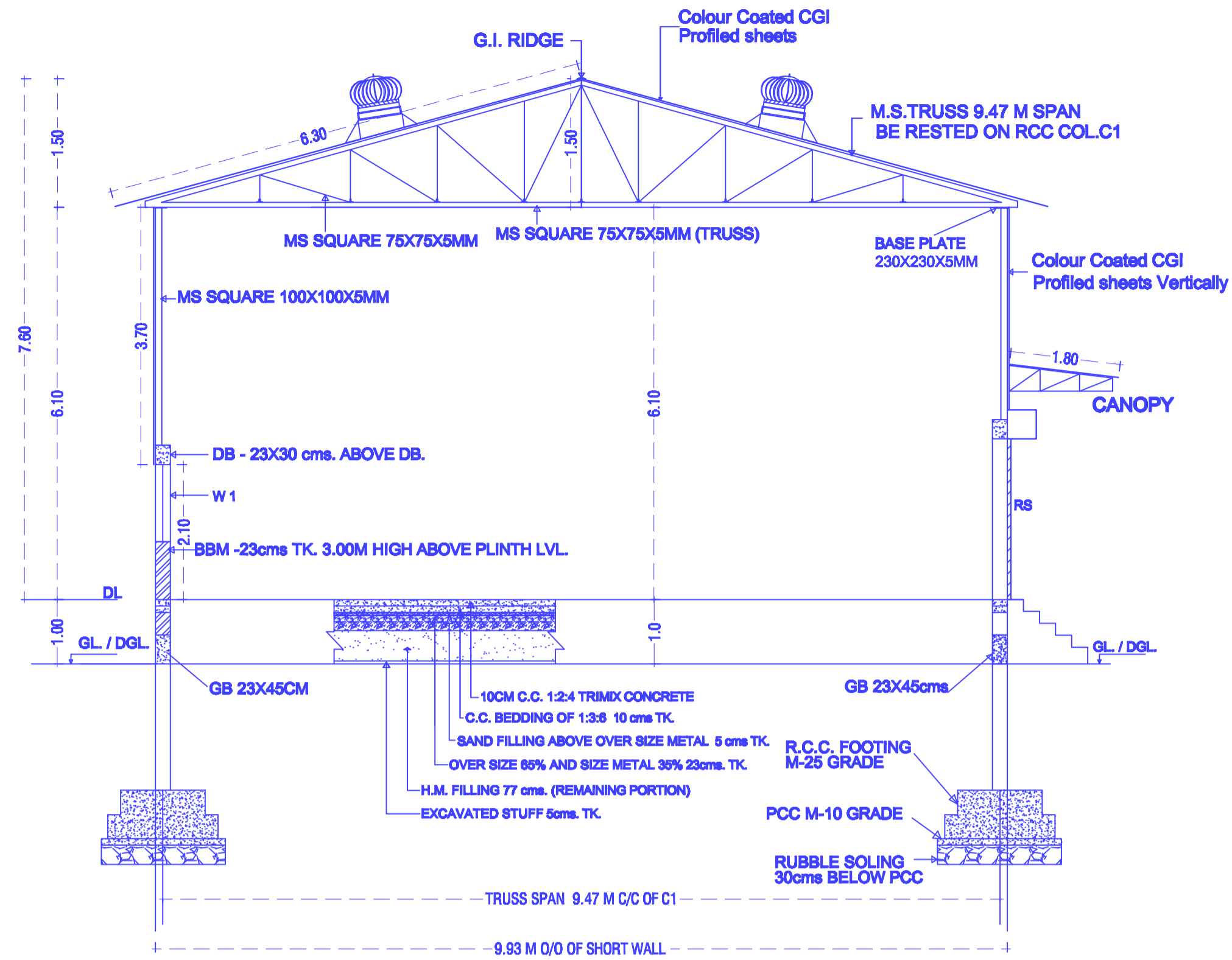
Name of Work :- Proposed Construction of Processing Plant Shed For Shivmalhar Farmers Producer Co.ltd,In Gat no.13/1,At-Padegaon, Tq-Khandala, Dist- Satara (MH)

Director : Shri.Rohan Ramesh Jadhav.

Stamp s Approval of plans



ELEVATION



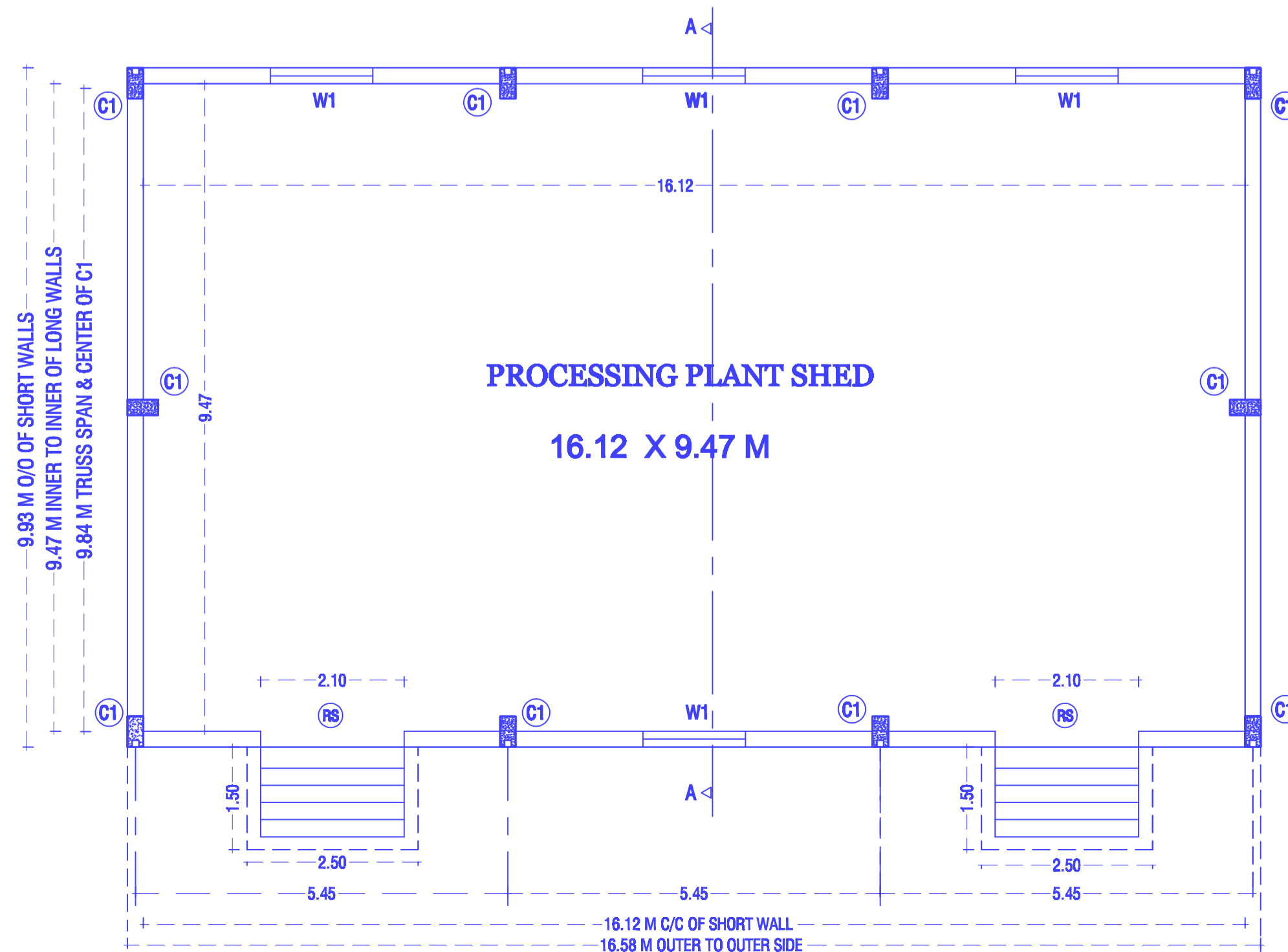
SECTION A,A

SCHEDULE OF ROLLING SHUTTERS/VENTILATORS

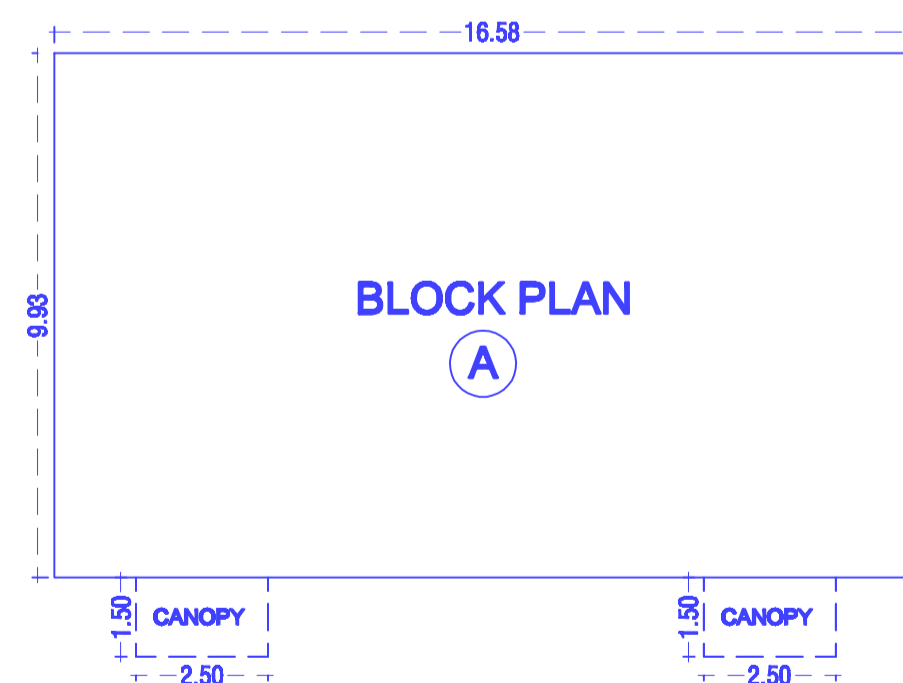
TYPE	SIZE IN M	NO	DISCRIPTION
RS	2.10X2.50	2	PULL & PUSH TYPE FIXED FROM INSIDE STEEL ROLLING SHUTTER REF-SPECIFICATION
W1	1.50X1.20	4	STELL VENTILATORS FULLY GLAZED WITH SHUTTERS (BOX HINGES) 6MM SQ.MESH18SWG.TO BE FIZED BY 19MMX3MM M.S.FLAT & 12MM SQ.BARS(7NOS.)IN VERTICAL POSITION @ 10cms C/C FIXED TO FRAME FROM OUTSIDE. (TOP VENTILATORS,BOTH LONG WALL AND ONE IN EACH PANEL)
	600 MM Ø	4	TURBO VENTILATOR

SCHEDULE OF RCC COLUMNS

TYPE	SIZE IN MM	NO	REMARK
C1	230X450	10	@ LONG WALLS



PROCESSING PLANT SHED PLAN



BLOCK PLAN

BUILT UP AREA CALCULATION

BUILDING SIZE	PROPOSED	SQ.MT.
MAIN BUILDING:	Ⓐ	
16.58 M X 9.93 M	=	164.70 SQ.MT.
TOTAL B/UP AREA = 164.70 SQ.MT.		
FLOOR AREA 16.12 M X 9.47 M = 152.65 SQ.MT.		

Owner's declaration

I/We undersigned hereby confirm that I/we would abide by plans.I/We would execute the structure as per sanctioned plans.Also I/We would execute the work under supervision of proper technical person so as to ensure the quality and safety at the work site

owner [S] name and signature FOR: Shri.Rohan Ramesh Jadhav.

Architect/Licensed Engineer/Supervisor name and signature

Gaurav Rajendra Bhaskar
Gaurav Rajendra Bhaskar
B.E.(Civil) A.M.I.E.
Chartered Engineer
AM3023322

Chartered Engineer

Saahas
SAI CONSULTANT
Consulting Civil Engineer
Rahuri, Dist. Ahmednagar

Registration/ License no of Arch./Lic.Eng./Supervisor



SAI CONSULTANTS

CONSULTING CIVIL ENGINEERS & CONTRACTORS.

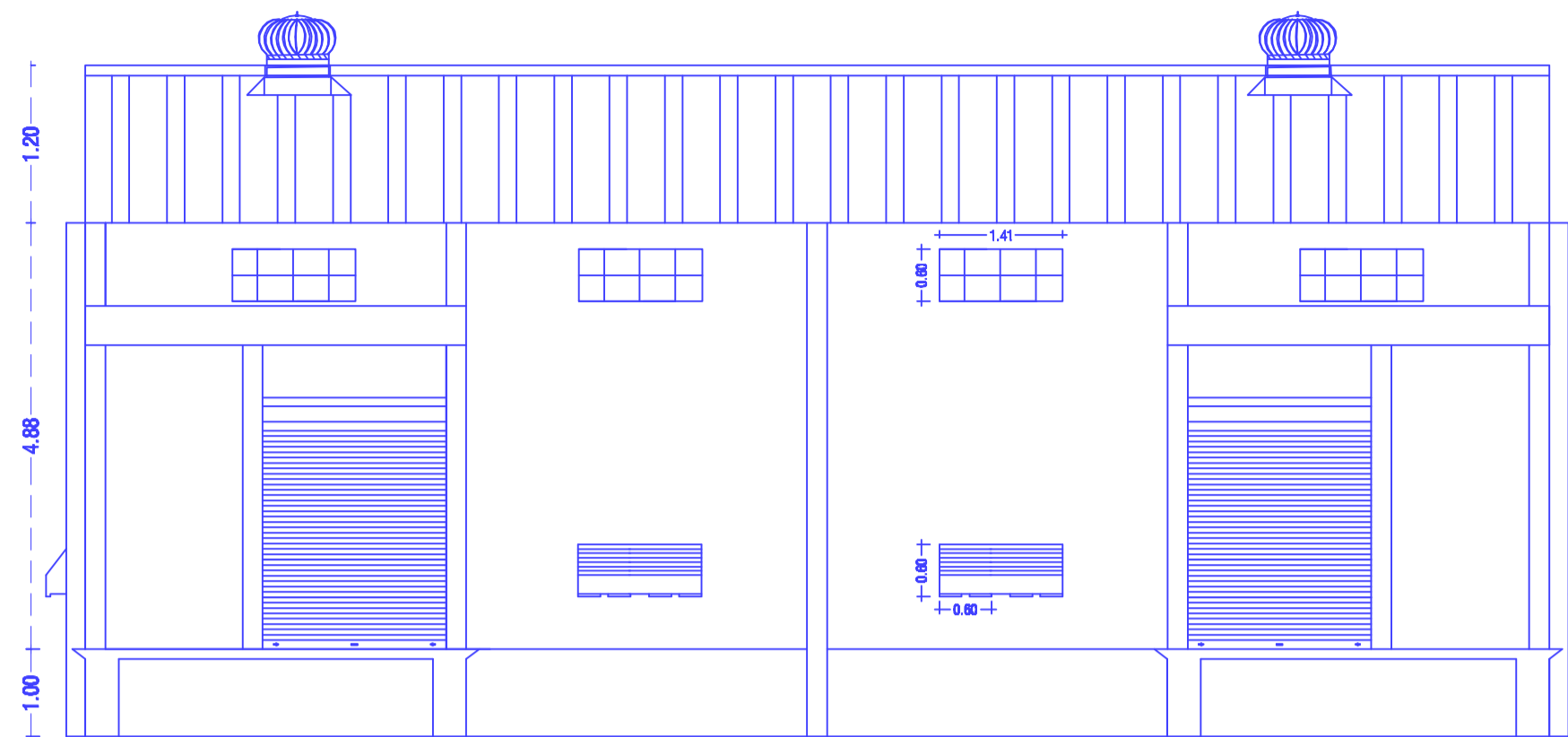
RAHURI
L.C.NO.ADTP-A/C-5/111.
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WARE HOUSE BUILDING UNIT 340 MT.

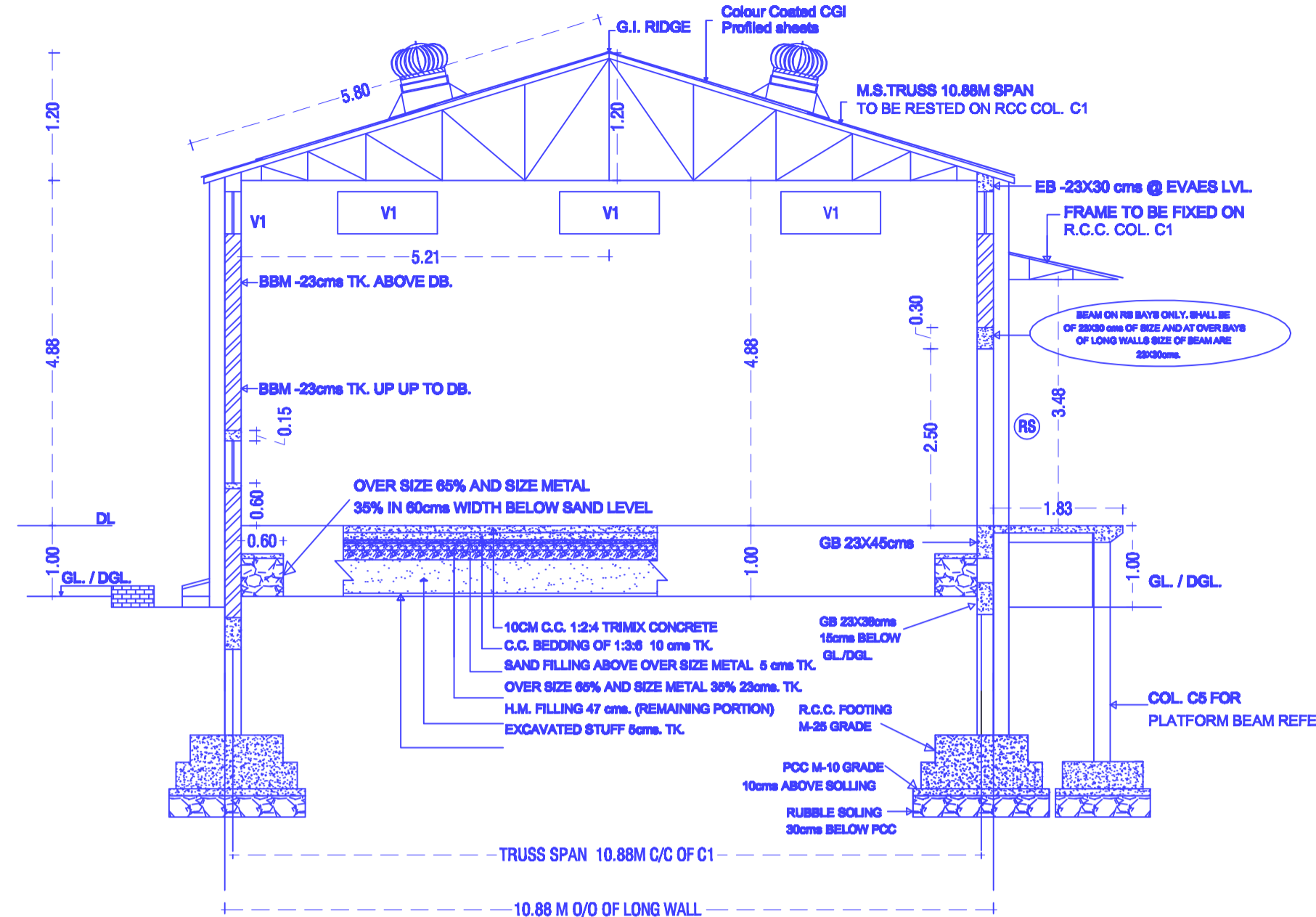
Name of work :- Proposed Construction of 340MT Warehouse Building For Shivmalhar Farmers Producer Co.ltd,In Gat no.13/1, At-Padegaon, Tq-Khandala, Dist- Satara (MH)

Director : Shri.Rohan Ramesh Jadhav.

Stamp Approval of plans



ELEVATION



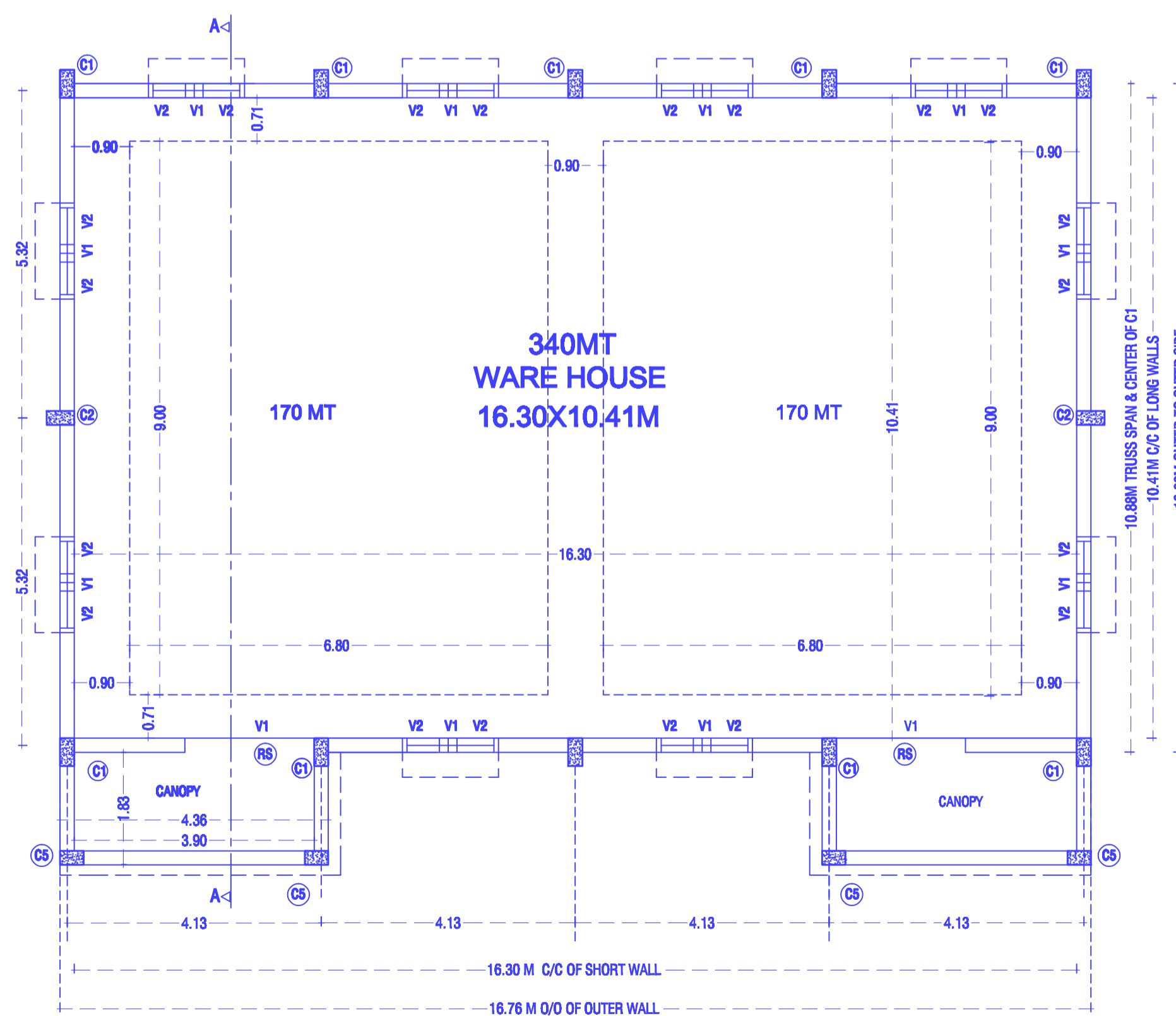
SECTION A-A

SCHEDULE OF RCC COLUMNS

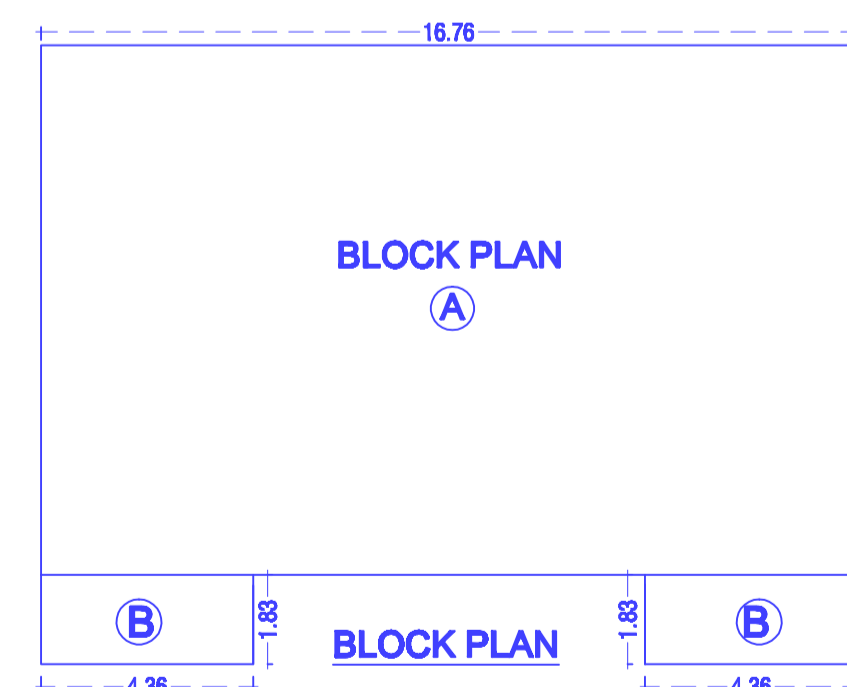
TYPE	SIZE IN MM	NO	REMARK
C1	230X450	10	@ LONG WALLS
C2	230X450	2	@ GABLE WALLS
C5	230X380	4	FOR PLATFORMS BELOW BEAM

SCHEDULE OF ROLLING SHUTTERS/VENTILATORS

TYPE	SIZE IN M	NO	DISCRPTION
RS	2.10X2.50	2	PULL & PUSH TYPE FIXED FROM INSIDE STEEL ROLLING SHUTTER REF-SPECIFICATION
V1	1.41X0.60	12	STELL VENTILATORS FULLY GLAZED WITH SHUTTERS (BOX HINGES) 6MM SQ.MESH/18SWG.TO BE FIXED BY 19MMX3MM M.S.FLAT &12MM SQ.BARS(7NOS.)IN VERTICAL POSITION @ 10cms C/C FIXED TO FRAME FROM OUTSIDE. (TOP VENTILATORS,BOTH LONG WALL AND ONE IN EACH PANEL)
V2	0.60X0.60	20	STELL VENTILATORS FULLY GLAZED WITH SHUTTERS (BOX HINGES) 6MM SQ.MESH/18SWG.TO BE FIXED BY 19MMX3MM M.S.FLAT &12MM SQ.BARS(7NOS.)IN VERTICAL POSITION @ 10cms C/C FIXED TO FRAME FROM OUTSIDE. (BOTTOM VENTILATORS,BOTH LONG WALL AND TWO IN EACH PANEL)
	600 MM Ø	4	TURBO VENTILATOR



PLAN FOR 340 MT. WH. UNIT



BUILT UP AREA CALCULATION

BUILDING SIZE	PROPOSED	SQ.MT.
MAIN BUILDING:	(A)	
16.76 M X 10.88 M	=	182.34 SQ.MT.
PLATFORMS :	(B)	
2 NO X 4.36 M X 1.83 M	=	15.95 SQMT
TOTAL B/UP AREA =		198.29 SQ.MT.
FLOOR AREA		16.30M X 10.41M = 169.68 SQ.MT.

Owner's declaration

I/We undersigned hereby confirm that I/we would abide by plans./We would execute the structure as per sanctioned plans.Also I/We would execute the work under supervision of proper technical person so as to ensure the quality and safety at the work site

owner [S] name and signature FOR: Shri.Rohan Ramesh Jadhav.

Architect/Licensed Engineer/Supervisor name and signature

G Bhaskar
Gaurav Rajendra Bhaskar
 B.E.(Civil) A.M.I.E.
 Chartered Engineer
 AM3023322
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