राजस्थान सरकार
ग्रामीण विकास एवं पंचायती राज विभाग
महात्मा गांधी नरेगा (अनुभाग–3) शासन सचिवालय, जयपुर
(Phone & Fax: 0141-2227956, E-mail: pdre_rdd@yahoo.com)

क्रमांकः एफ 40(35)ग्रावि/नरेगा/व्य.ला.का./पार्ट–3/2015 जयपुर, दिनांकः 07 AUG 2015

जिला कार्यक्रम समन्वयक, ईजीएस एवं
जिला कलक्टर, जिला नागौर।

विषयः– महात्मा गांधी नरेगा योजनान्तर्गत व्यक्तिगत लाभार्थी के कार्य "अपना खेत अपना काम" प्रति जॉबकार्डधारी परिवार हेतु वित्तीय सीमा बढ़ाने के उपरान्त चाहे गये मार्गदर्शन बाबत।

प्रसंगः– विभागीय पत्र क्रमांक एफ 40(63)ग्रावि/नरेगा/कन्वर्जेन्स–सा./पार्ट–2/2015 दिनांक 03.07.2015 एवं अति. जिला कार्यक्रम समन्व्यक, ईजीएस एवं मुख्य कार्यकारी अधिकारी, जिला परिषद नागौर का पत्र क्रमांक 1341 दिनांक 10.07.2015।

महोदय,

उपरोक्त विषयान्तर्गत प्रासंगिक पत्र दिनांक 10.07.2015 द्वारा अति. जिला कार्यक्रम समन्व्यक, ईजीएस एवं मुख्य कार्यकारी अधिकारी, जिला परिषद नागौर ने प्रासंगिक पत्र दिनांक 03.07.2015 के क्रग गें गार्गदर्शन चाहा है। इस सम्बन्ध में बिन्दुवार विभागीय टिप्पणी/स्पष्टीकरण निम्नानुसार हैः–

क्र.सं.	मार्गदर्शन बिन्दु	विभागीय टिप्पणी/स्पष्टीकरण
1.	यदि कोई लाभार्थी जिसने महात्मा गांधी नरेगा योजनान्तर्गत अपना खेत अपना काम योजना में टांका निर्माण करा लिया है तथा उसने मेड़बन्दी कार्य भी कराया है। क्या उस लाभार्थी को पशु आश्रय बाबत व्यक्तिगत लाभ का कार्य स्वीकृत किया जा सकता है। यदि किया जा सकता हैं तो क्या उस कार्य के अन्तर्गत मेड़बन्दी/भूमि समतलीकरण का कार्य साथ में आवश्यक है या नहीं। नहीं है तो उस कार्य की वित्तीय सीमा क्या होगी?	हाँ, यदि लाभार्थी ने महात्मा गांधी नरेगा योजनान्तर्गत व्यक्तिगत लाभ के कार्य के तहत टांका, निर्माण एवं मेड़बन्दी कार्य करा लिया है तो भी उसे पशु आश्रय का कार्य स्वीकृत किया जा सकता है। यदि लाभार्थी स्वयं की भूमि पर कार्य कराना चाहता है एवं मौके पर भी कार्य कराने की उपयोगिता है तो कार्य कराये जा सकते है लेकिन पूर्व में जिन लाभार्थियों के टांका निर्माण, मेड़बन्दी एवं भूमि रामतलीकरण आदि कार्य योजनान्तर्गत कराये जा चुके हैं तो उनके यहां ये कार्य स्वीकृत नहीं किये जाकर अन्य लाभार्थियों को कार्य स्वीकृत किये जावे। पशु आश्रय के कार्यों की लागत वास्तविक तकमीने की लागत अनुसार होगी। इस प्रकार के प्रत्येक कार्य पर महात्मा गांधी नरेगा योजनान्तर्गत व्यय में श्रम, सामग्री का अनुपात 60:40 संधारित करना चाहिए।
2.	टांका निर्माण अपना खेत अपना काम के अन्तर्गत व्यक्तिगत लाभ का कार्य है, जबकि पशु आश्रय (केटल शैड) व्यक्तिगत लाभ का कार्य है। यदि कोई लाभार्थी दोनों कार्य एक साथ कराना चाहता है तो उस स्थिति में कार्य स्वीकृत किया जा सकता है या नहीं। यदि हाँ तो दोनों कार्यों में वित्तीय सीमा क्या होगी?	महात्मा गांधी नरेगा योजनान्तर्गत व्यक्तिगत लाभ के कार्य के तहत टांका निर्माण एवं पशु आश्रय (केटल शैड) के कार्य एक साथ स्वीकृत किये जा सकते है। प्रासंगिक पत्र दिनांक 03.07.2015 अनुसार इन्दिरा आवास योजना एवं पशु/बकरी/सूकर/कुक्कुट आश्रय के कार्यों की राशि को छोड़ कर योजनान्तर्गत व्यक्तिगत लाभ के सभी कार्यों की वित्तीय सीमा रु. 3 लाख है। पशु/बकरी/सूकर/कुक्कुट आश्रय के कार्यों की लागत संलग्न मॉडल तकमीनो को जिले की नवीनतम बीएसआर से तैयार करने पर आने वाली लागत अनुसार होगी।

3.	पशु आश्रय के लिए वित्तीय सीमा क्या रू. 2 लाख है या रु. 3 लाख है।	पशु/बकरी/सूकर/कुक्कुट आश्रय के कार्यों की लागत संलग्न मॉडल तकमीनो को जिले की नवीनतम बीएसआर से तैयार करने पर आने वाली लागत अनुसार होगी, किन्तु महात्मा गांधी नरेगा योजनान्तर्गत लाभार्थी को दिये जाने वाली कुल राशि में से श्रम सामग्री का अनुपात 60:40 रखना चाहिए।

भवदीय

संलग्न :– उपरोक्तानुसार।

7/8/15

(रोहित कुमार)
आयुक्त, ईजीएस

प्रतिलिपि सूचनार्थ प्रेषित है :–

1. निजी सचिव, प्रमुख शासन सचिव, ग्रावि एवं पंरा विभाग, जयपुर।
2. निजी सचिव, शासन सचिव, ग्रावि विभाग, जयपुर।
3. निजी सचिव, शासन सचिव, पंचायती राज विभाग, जयपुर।
4. निजी सचिव, आयुक्त, ईजीएस।
5. जिला कार्यक्रम समन्वयक, ईजीएस एवं जिला कलक्टर, समस्त (नागौर को छोड़कर)।
6. अति. जिला कार्यक्रम समन्वयक, ईजीएस एवं मुख्य कार्यकारी अधिकारी, जिला परिषद समस्त (नागौर को छोड़कर)।
7. अति. जिला कार्यक्रम समन्वयक, ईजीएस एवं मुख्य कार्यकारी अधिकारी, जिला परिषद, नागौर को प्रासंगिक पत्र दिनांक 10.07.2015 के क्रम में।
8. अधिशाषी अभियंता, ईजीएस, जिला परिषद समस्त।
9. विकास अधिकारी, पंचायत समिति समस्त।
10. श्री रिंकू, एमआईएस मैनेजर, ईजीएस कार्यालय हाजा को ईमेल करने व वैबसाईड पर अपलोड करने हेतु।

7/8/15

परि. निदे. एवं संयुक्त सचिव, ईजीएस

Samarthya Manual

CHAPTER

05

AGRICULTURE INFRASTRUCTURE UNDER MGNREGA

5.1. INFRASTRUCTURE FOR PROMOTION OF LIVESTOCK

5.1.1. POULTRY SHELTER

5.1.1.1. Backyard poultry helps in supplementing income as well as for providing much needed nutritional inputs for rural households. Poultry birds suffer from very poor shelter infrastructure available in villages leading to their poor health and frequent illnesses. High mortality amongst bird's results in high losses and unpredictable low income. To protect the birds from predators and frequent illnesses, a pucca structure is required to act both as a shelter and to provide protection to birds and eggs from predators.

5.1.1.2. A shelter of 7.50 sqm (length 3.75 m and width 2 m) would be suitable for 100 birds. On the longer sides, the shelter will have a 30 cm high and 20 cm thick brick masonry wall up to plinth level. From the plinth to the top of the shelter there is a wire mesh supported by brick masonry pillars of size 30cmx30cm. The shorter side will have a 20 cm thick brick masonry wall with an average height of 2.20m. The roof will be supported by MS angles (wood/ bamboo). The roof will have galvanised iron corrugated sheets. The base of the floor will be constructed by hard moorum filling. The floor will be built by using 2nd grade bricks with masonry in 1:6 ratio of cement mortar.

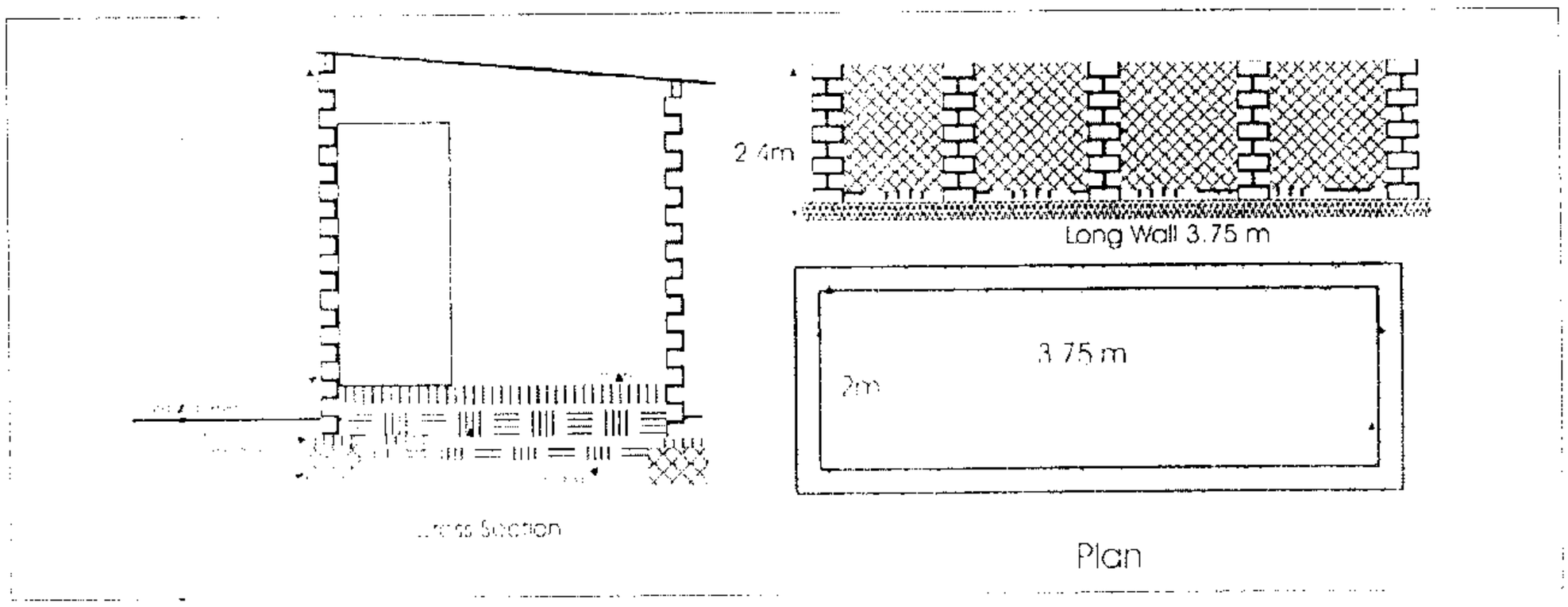

Figure 5-1: Typical Drawings for poultry shed

Table 5-1: Typical estimate of poultry shed for 100 birds

S. No.	Detail	No.	L	W	H/D	Qty.	Unit	Rate	Amount
1	Excavation in Hard Soil for Foundation								
	Long Wall	2	4.25	1	0.5	4.3			
	Short Wall	2	2	1	0.5	2.0			
	Floor	1	3.75	2	0.3	2.3			
	Total Excavation in Hard Soil					8.5	cum	67.8	576
2	Excavation in Hard Moorum for Foundation								
	Long Wall	2	4.25	1	0.5	4.3			
	Short Wall	2	2	1	0.5	2.0			
	Total Excavation in Hard Moorum					6.3	cum	100	625
3	Boulder filling for foundation								
	Long Wall	2	4.25	1	0.6	5.1			
	Short Wall	2	2	1	0.6	2.4			
	Total Boulder filling for foundation					**7.5**	cum	277.6	2082
4	PCC for foundation in 1:3:6								
	Long Wall	2	4.25	0.3	0.1	0.3			
	Short Wall	2	2	0.3	0.1	0.1			
	Total PCC for foundation in 1:3:6					**0.4**	cum	1943.2	729
5	Brick Massonary in 1:4 upto DPC level								
	Long Wall	2	3.95	0.2	0.3	0.5			
	Short Wall	2	2	0.2	0.3	0.2			
	Total Brick Massonary in 1:4 up to DPC level					**0.7**	cum	2509.2	1792
6	DCC for Wall in 1:3:6								
	Long Wall	2	3.95	0.2	0.05	0.08			
	Short Wall	2	2	0.2	0.05	0.04			
	Total DPC for wall 1:3:6					**0.1**	cum	1943.2	231
7	Brick Massonary in 1:4 for superstructure								
	Short Wall	2	2	0.2	2.2	1.8			
	Pillar for long wall	8	0.3	0.3	2.2	1.6			
	Deduction for Door	1	2	1	0.2	-0.4			
	Total Brick Masaonary in 1.4 for superstructure					2.9	cum	2620.7	7715
8	Flooring with 2nd grade bricks packing in 1.6 CM								
	Floor 1	3.75	2		7.5				
	Total					7.5	sqm	210.2	1577
9	Plastering 10mm thick in 1.4 CM								
	Long Wall	32	0.3	2.2		21.1			
	Short Wall	2	2	2.2		8.8			
	Deduction for Door	1	2	1		-2.0			
	Total Plastering 10mm thick in 1:4 CM					27/9	sqm	66.3	1851
10	Ventilator 1M x 2M					8	No.	1000	8000
11	Door 2M x 1M							2000	
12	Provision for GI Roofing Sheet 0.63 mm thick with complete fitting and fabrication	1	4	2.7		10.8	sqm	411.6	4445
13	Angle for roof support								
	65mm x 65mm x 6mm					93.96	Kg		
	50mm x 50mm x 5mm					22.8	Kg		
	Total					116.76	Kg	52.6	6142
	Total Cost								37265
	Rates are taken from SORRES, MGNREGA Dewas District MP applied form July 2011								
						Labour		7006	19%
						Material		30759	81%

5.1.2. GOAT SHELTER:

5.1.2.1. Most of the poor rural households, who depend on small ruminants, lack the resources to construct and provide for an adequate and safe living space for their cattle. It is well known that for the tribals of Central India, goats and poultry are often more important as a means of livelihood than even minor forest produce. Lack of a safe living space leads to their poor health, frequent illnesses and to their maintaining a very low and uneconomical herd size. In the integrated farming systems of tribal households, the "waste" from livestock systems, such as goat litter and urine are important organic inputs into agricultural farms, increasing soil fertility and raising crop output. Poor shelter infrastructure leads to low and inefficient collection of dung, litter and urine, which is a waste of valuable and locally available organic inputs to farming. Thus, provision of better shelter facilities for goats offers a win-win situation by which animal health and soil health can be improved simultaneously, with very low initial investments. It is one of the most suitable and accepted means of livelihood for the landless.

5.1.2.2. A 7.5 sqm shelter (length 3.75 m and width 2 m) would be suitable for 10 goats. The 4 walls will be raised to an average height of 2.20m. The walls will be of brick masonry using 1:6 cement mortar. The roof will be supported by M.S. angles. The roof will have galvanised iron corrugated sheets. The floor will be of hard moorum.

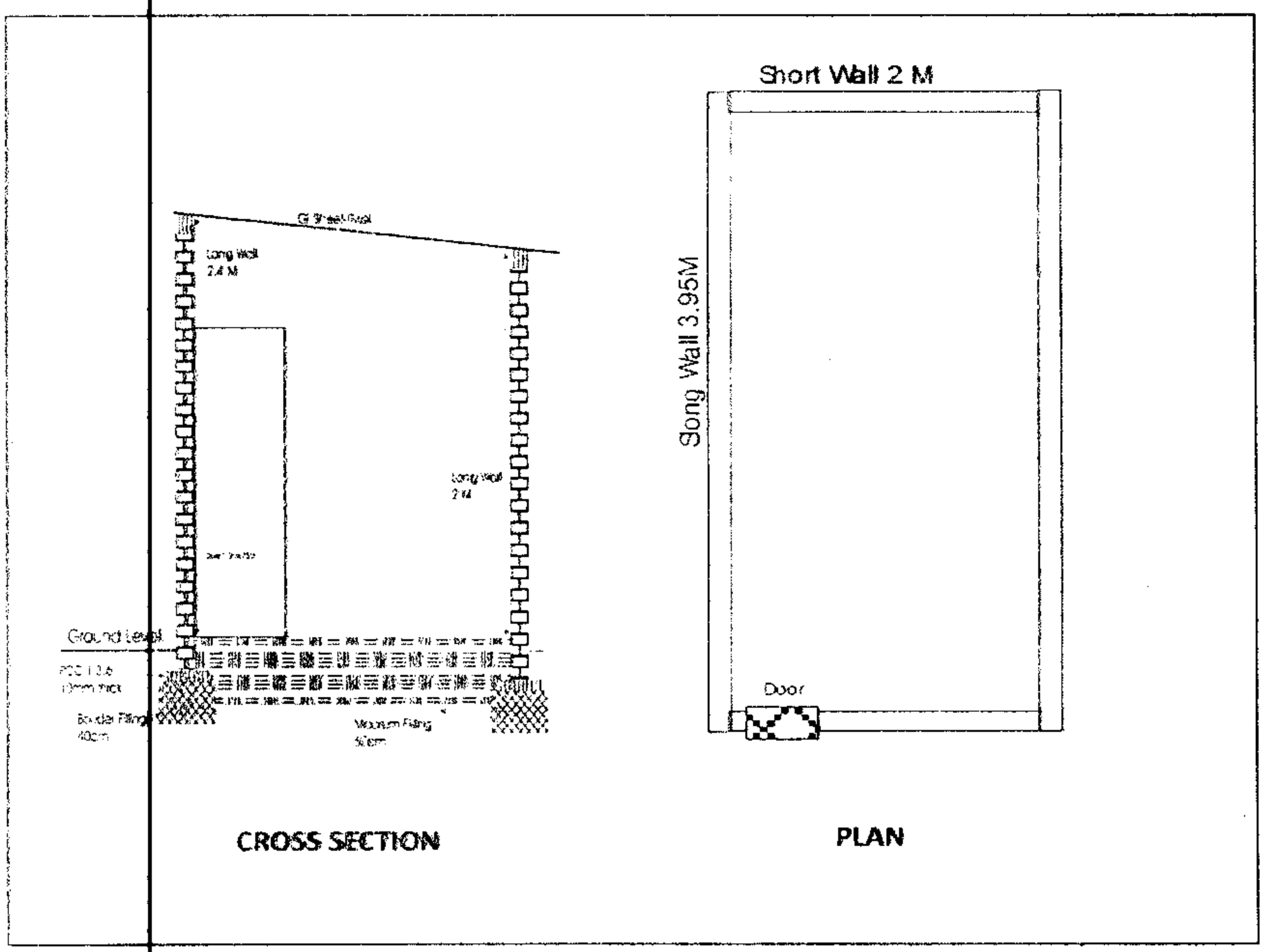

Figure 5-2: Typical Drawings for Goat shelter

Table 5-2: Typical Estimate for Goat shelter

S. No.	Detail	No.	L	W	H/D	Qty.	Unit	Rate	Amount
1	Excavation in Hard Soil for Foundation								
	Long Wall	2	4.25	1	0.5	4.3			
	Short Wall	2	2	1	0.5	2.0			
	Floor	1	3.75	2	0.3	2.3			
	Total Excavation in Hard Soil					8.5	cum	67.8	576
2	Excavation in Hard Moorum for Foundation								
	Long Wall	2	4.25	1	0.5	4.3			
	Short Wall	2	2	1	0.5	2.0			
	Total Excavation in Hard Moorum					6.3	cum	100	625
3	Boulder filling for foundation								
	Long Wall	2	4.25	1	0.6	5.1			
	Short Wall	2	2	1	0.6	2.4			
	Total Boulder filling for foundation					**7.5**	cum	277.6	2082
4	PCC for foundation in 1:3:6								
	Long Wall	2	4.25	0.3	0.1	0.3			
	Short Wall	2	2	0.3	0.1	0.1			
	Total PCC for foundation in 1:3:6					**0.4**	cum	1943.2	729
5	Brick Massonary in 1:4 upto DPC level								
	Long Wall	2	3.95	0.2	0.3	0.5			
	Short Wall	2	2	0.2	0.3	0.2			
	Total Brick Massonary in 1:4 up to DPC level					**0.7**	cum	2509.2	1792
6	DCC for Wall in 1:3:6								
	Long Wall 2	3.95	0.2	0.05	0.08				
	Short Wall 2	2	0.2	0.05	0.04				
	Total DPC for wall 1:3:6					**0.1**	cum	1943.2	231
7	Brick Massonary in 1:4 for superstructure								
	Short Wall	2	2	0.2	2.2	1.8			
	Pillar for long wall	8	0.3	0.3	2.2	1.6			
	Deduction for Door	1	2	1	0.2	-0.4			
	Total Brick Masaonary in 1:4 for superstructure					2.9	cum	2620.7	7715
8	Flooring with 2nd grade bricks packing in 1:6 CM								
	Floor 1	3.75	2		7.5				
	Total					7.5	sqm	210.2	1577
9	Plastering 10mm thick in 1:4 CM								
	Long Wall	32	0.3	2.2		21.1			
	Short Wall	2	2	2.2		8.8			
	Deduction for Door	1	2	1		-2.0			
	Total Plastering 10mm thick in 1:4 CM					27/9	sqm	66.3	1851
10	Ventilator 1M x 2M					8	No.	1000	8000
11	Door 2M x 1M							2000	
12	Provision for GI Roofing Sheet 0.63 mm thick with complete fitting and fabrication	1	4	2.7		**10.8**	sqm	411.6	4445
13	Angle for roof support								
	65mm x 65mm x 6mm					93.96	Kg		
	50mm x 50mm x 5mm					22.8	Kg		
	Total					**116.76**	Kg	52.5	6142
	Total Cost								37755
	Rates are taken from SORRES, MGNREGA Dewas District MP applied form July 2011								
					Labour			7006	19%
					Material			30759	81%

5.12 GOAT SHELTER CONSTRUCTED UNDER AKRSP(I) IN MADHYA PRADESH

As an alternative to the above and to facilitate construction of a greater number of eco-friendly sheds at a lower cost, Aga Khan Rural Support Programme (India) (AKRSP(I)) designed a goat shelter with proactive participation of the local community, using South Asia Pro Poor Livestock Policy Programme (SA PPLPP) project funds for the purpose. The low cost alternative, which has a larger pucca area, and an attached sky-open enclosure, was completed at about 50% of the cost incurred under MGNREGS (for INR 19,110 only).

The model is cost effective, labour intensive and usage of local material & green technology, therefore vide Ministry letter No J-11017/40/2011-MGNREGA (UN), dated 3rd December, 2014, it has been advised to consider adoption of the model if found suitable and wherever such material is locally available.

i) The advantage of this locally evolved design are summarised below.

a) For the goats housed in the shelter

- More area inside the shelter, so less crowding.
- Freedom of movement inside and outside of the shelter, with the option of being in the open air enclosure or sa running as required.
- Moderation of temperature in winter and summer as the wood and mud plastering does not trap heat/cold inside.
- Better ventilation and humidity control.
- Closure to nature feel and look.

b) For the goat-rearer

- Ease of construction and possibility of undertaking repairs without having to rely on skilled labour (mason)
- Lesser dependence on external support for ² nancing and construction.
- Higher acceptability among goat rearers and probability of the shed being used for the purpose designed (most families in poor, rain fed areas lack pucca houses for their habitation and chances of a pucca goat shelter being used for housing the family are higher, leaving the goats without any shelter).
- Higher sense of ownership as labour and material sourcing is done by the owner.
- Use of locally available and eco-friendly material for construction.
- Better housing and management of goats overall, leading to reduced losses from morbidity and mortality effectively increased contribution of animal husbandry to the GDP.

Ta le 5 A ai o a erial a d la o r co volved co r c o o oa helter

No	ar c lar	A per locall evolved de A R (I) D e o (L H) I(1 12)			
		a	U	Ra e	A o
1	Bricks	-	-	-	-
2	Cement	-	-	-	-
3	Aggregates	-	-	-	-
4	Sand	-	-	-	-
5	Door	-	-	-	-
6	Hole pass	-	-	-	-
7	Windows	-	-	-	-
8	Flag stone	-	-	-	-

29.

Sl. No.	Particulars	As per locally evolved design by AKRSP(I) Dimension (L*B*H) in ft. (14*12*8)			
		Quantity	Unit	Rate	Amount
9.	Sheet for roof	-	-	-	-
10.	Angle for support	-	-	-	-
11.	Roof tiles	315	No	11.1	3,500
12.	Wooden planks(for floor)	6	6ft. Length	1,000	6,000
13.	Metal strip	1	No	90	90
14.	Nails	-	No	50	50
15.	Wooden logs (large)	15	No	200	3,000
16.	Wooden logs (small)	25	No	150	3,750
17.	Soil (for mud plastering)	1	Tractor trip	300	300
18.	Moorum	-	Tractor trip	350	350
19.	Provision for manger	1	Lump sum	150	150
20.	Mason (skilled labour)	-	-	-	-
21.	Carpenter	1	No of days	350	350
22.	Unskilled labour	10	No of days	1570	1,570
23.	Grand total	Under SA PPLPP project (by AKRSP(I)			19,110

5.1.3. CONSTRUCTION OF PIGGERY SHELTER:

Most of the poor rural households, who depend on small ruminants, lack the resources to construct and provide for an adequate and safe living space for their pigs. It is well known that in many rural areas, piggery is often important as a means of livelihood than even minor forest produce. Lack of a safe living space leads to their poor health and frequent illnesses. Poor shelter infrastructure leads to low and inefficient collection of dung, litter and urine, which is a waste of valuable and locally available organic inputs to farming. Thus, provision of better shelter facilities for pigs offers a win-win situation by which animal health and soil health can be improved simultaneously, with very low initial investments. It is one of the most suitable and accepted means of livelihood for the landless.

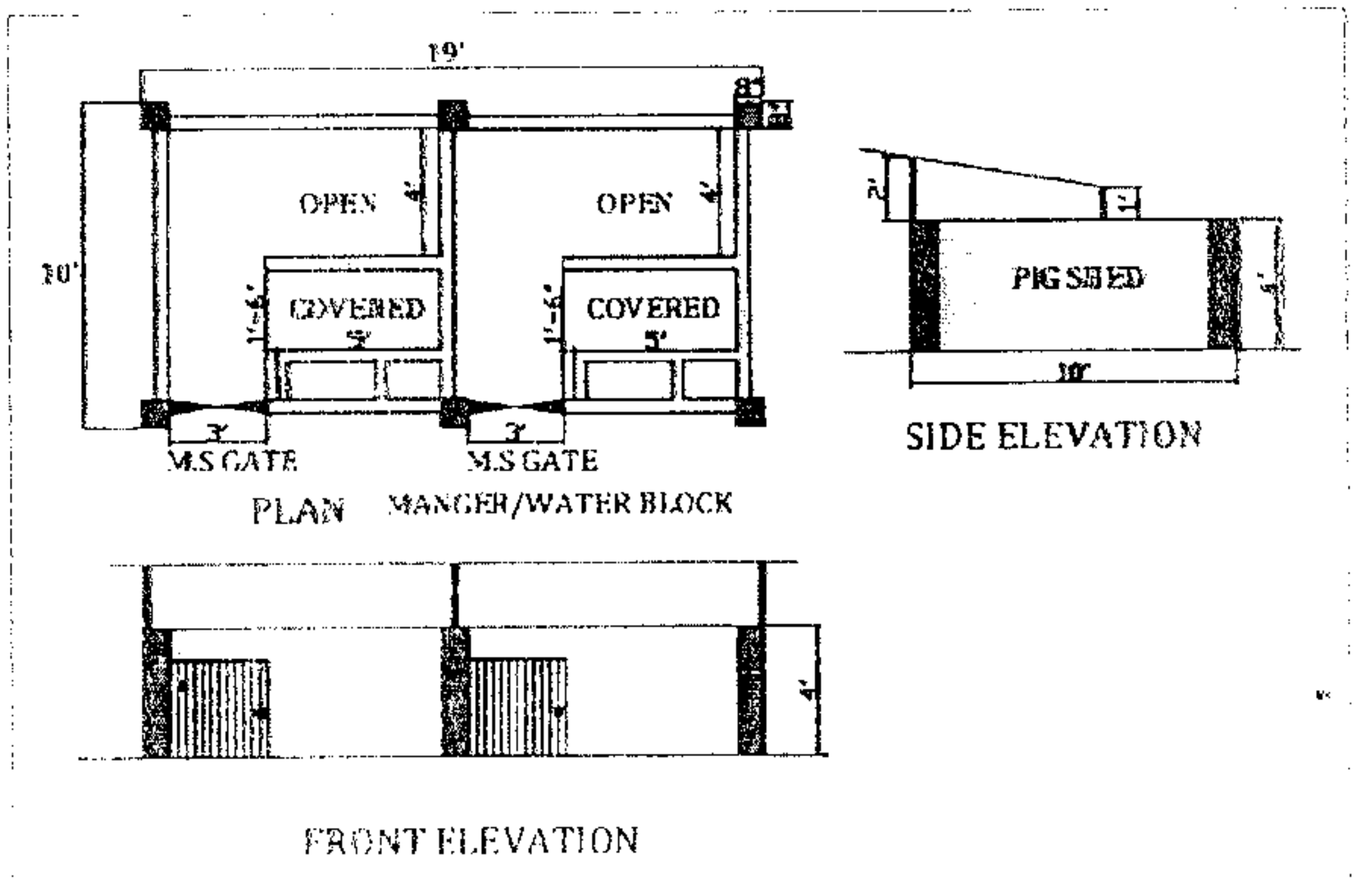

Figure 5-3: Drawings for Piggery Shelter

Table 5-4: Typical Estimate for the construction of Piggery Shelter

ESTIMATE FOR THE CONSTRUCTION OF A LOW COST PIG SHED (2 Units).				
Sl	Particulars	Quantity	Rate	Amount
1	Manpower engaged for jungle clearance, site levelling including throwing of spoils etc all complete 3 x 2 = 6.00 labours days mandays	6.00	200 /manday	₹ 1200
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. Column 6 x 0.60 x 0.60 x 1.20 = 2.59 cum Floor area 3.00 x 5.80 x 0.30 = 5.22 cum = 7.81 cum	7.81 cum	164.740 /cum	₹ 1287
3	Providing and laying hand packed stone soling in building works with clean hard selected stones all complete (Manual Means) Footing 6 x 0.60 x 0.60 x 0.15 = 0.32 cum Floor area 3.00 x 5.80 x 0.15 = 2.61 cum = 2.93 cum	2.93 cum	560.230 /cum	₹ 1644
4	Providing & Laying in position cement concrete of 1:3:6 mix, including compacting curing etc (stone aggregate 20mm down) all complete Footing 6 x 0.60 x 0.60 x 0.07 = 0.15 cum Floor area 3.00 x 5.80 x 0.10 = 1.74 cum = 1.89 cum	1.89 cum	3821.970 /cum	₹ 7228
5	Providing and laying in position 1:2:4 mix reinforced cement concrete excluding the cost of form work, finishing & reinforcements but including curing etc all complete Foundation base 6 x 0.60 x 0.60 x 0.10 = 0.22 cum Pyramid 6 x $\frac{0.30}{3}$ x (0.60) = 0.36 cum RCC columns: 6 x 0.20 x 0.20 x 2.40 = 0.58 cum = 1.15 cum	1.15 cum	4343.11 /cum	₹ 5586
6	Providing, fixing and removing form work for casting R.C.C items as indicated below. (with locally available timber) Columns upto top: 2 x 6 x 1.20 x 0.25 = 3.60 sqm	3.60 sqm	603.86 sqm	₹ 2192
7	Supplying, bending and placing in position of tor steel reinforcement in all R.C.C works i/c cost of binding wires all complete. vi.no (5) = 1.15 cum @ 80.00 kg /cum = 92.16 kg = 0.92 qtl.	0.92 qtl.	6723.30 /qtl	₹ 6201
8	Providing U shaped drain of 23 cm (ht.) x 23 cm (width) internal dimension with 1:2:4 Plum concrete (1cement 2 clean coarse sand, 4 clean hard selected stone chips of size 20 mm and down nominal gauge) in side walls thickness of 23 cm both side and 1:3:6 c.c mix complete, as per the direction of Engineer-in-charge. = 6.00 mtr	6.00 mtr	694.290 /mtr	₹ 4166
9	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 coarse sand) including carriage of bricks upto work site and curing etc all complete 4 x 2.55 x 1.20 = 12.24 sqm 1 x 2.55 x 0.90 = 2.30 sqm 2 x 1.65 x 1.20 = 3.96 sqm			

						=	18.50 sqm	18.50 sqm	839.14 /sqm	₹ 15521
10	Providing and laying in position Plum concrete in 1:2:4 mix with stone aggregate of size 20mm down all complete.									
	Manger and Water Blocks:									
	2	x	1.50	x	0.30	x 0.10	=	0.09 cum		
	4	x	0.45	x	0.30	x 0.10	=	0.05 cum		
								0.14 cum	0.14 cum	3441.42 /cum	₹ 489
11	Providing and laying 12 mm thick cement plaster of 1:3 mix in single coat including finishing even & smooth and curing etc. all complete.									
	v i no.(9)				=	18.50	x 2 side =	36.99 sqm	36.99 sqm	132.300 /sqm	₹ 4894
12	Supplying, fabricating, fitting and fixing steel tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shape washer etc as per the standard specification and design and direction of Engineer - in- Charge all complete									
	MS Tubular pipe (Square pipes):									
	Columns (38x38)mm, 2.6mm thick:									
			3	x	0.75	=	2.25	Rm		
			3	x	0.45	=	1.35	Rm		
	Purlins (38x38)mm, 2.6mm thick:									
			5	x	2.4	=	12.00	Rm		
			3	x	6	=	18.00	Rm		
						=	33.60	Rm		
			33.60	x	2.73 kg/mtr	=	91.73	kgs	91.73 kgs	95.580 /kgs	₹ 8768
13	Providing, fitting, fixing of 24 BWG GCI sheet roofing with lapping of 150mm (two corrugation) with G.I. hooks, bolts and nut 8mm dia with bitumen GI limpet washers filled with white bad including coat of approved steel primer and two coats of approved paint, on overlapping of sheet excluding carriage all complete.									
	1	x	6.40	x	2.44	=	15.62 sqm		15.62 sqm	853.440 /sqm	₹ 13327
14	Providing, fitting & fixing of MS gate all complete.									
	MS Gate (0.75x0.9)m:					=	2.00 nos.		2.00 nos	1000 /nos	₹ 2000
15	Carriage of stock materials on the surfaced road excluding loading and unloading of materials all complete.									
	Cement		15	Kms						
	v i no.(4)			=	1.89	x 4.400	=	8.32 bags		
	v i no.(5)			=	1.15	x 6.400	=	7.37 bags		
	v i no.(8)			=	6.00	x 0.254	=	1.52 bags		
	v i no.(9)			=	18.50	x 0.213	=	3.94 bags		
	v i no.(10)			=	0.14	x 3.200	=	0.46 bags		
	v i no.(11)			=	36.99	x 0.147	=	5.44 bags		
							=	27.06 bags		
						say		27.00 bags		
						say	=	13.53 qtls		
	Steel									
	v i no.(7)						=	0.92 qtls		
							=	14.45 qtls		
							=	1.44 MT	1.44 MT	88.580 /MT	₹ 127
	(carriage of materials per MT/Km)						=	5.57			
a)	Loading and unloading of cement or steel by manual means and stacking									
									1.44 MT	153.580 /MT	₹ 221
16	Carriage of non stock materials on surfaced road all complete									
A)	Sand		15	Kms						
	v i no.(4)			=	1.89	x 0.470	=	0.89 cum		
	v i no.(5)			=	1.15	x 0.450	=	0.52 cum		

	vi.no (8)	=	6.00	x	0.063	=	0.38 cum		
	vi.no (9)	=	18.50	x	0.030	=	0.55 cum		
	vi.no (10)	=	0.14	x	0.223	=	0.03 cum		
	vi.no (11)	=	36.99	x	0.015	=	0.55 cum		
						=	2.93 cum		
						=	5385.82 kgs		
						=	5.39 MT	5.39 MT	83.55 /MT ₹ 450
	(carriage of materials per MT/Km.)					=	5.57		
	Loading and unloading of stone boulders / stone aggregates / sand / kankar / moorum							2.93 cum	87.000 /cum ₹ 255
B)	Stone 5 Kms								
	vi.no (3)	=	2.93	x	0.950	=	2.79 cum		
	vi.no (8)	=	6.00	x	0.115	=	0.69 cum		
	vi.no (10)	=	0.14	x	0.500	=	0.07 cum		
							3.55 cum		
						=	7808.46 kgs		
						=	7.81 MT	7.81 MT	27.85 /MT ₹ 217
	(carriage of materials per MT/Km.)					=	5.57		
	Loading and unloading of stone boulders / stone aggregates / sand / kankar / moorum							3.55 cum	87.000 /cum ₹ 309
C)	Stone chips 15 Kms								
	vi.no (4)	=	0.00	x	0.890	=	0.00 cum		
	vi.no (5)	=	1.15	x	0.890	=	1.03 cum		
	vi.no (8)	=	6.00	x	0.106	=	0.64 cum		
	vi.no (10)	=	0.14	x	0.445	=	0.06 cum		
							1.73 cum		
						=	3545.61 kgs		
						=	3.55 MT	3.55 MT	83.55 /MT ₹ 296
	(carriage of materials per MT/Km.)					=	5.57		
	Loading and unloading of stone boulders / stone aggregates / sand / kankar / moorum							1.73 cum	87.000 /cum ₹ 150
									Structure Cost= ₹ 70077
									Deduction of 7.5% Contractors' Profit= ₹ 5256
									Total= ₹ 64822

(Rupees Sixty Four Thousand Eight Hundred and Twenty Two) Only.

5.1.4. CONSTRUCTION OF CATTLE SHED:

5.1.4.1. Usually, cattle are kept in sheds with kuchha floor. The place where cattle rest often gets messy with cow dung, cattle urine and water. In particular, during rainy seasons the kuchha floor becomes unhealthy and causes several infectious diseases for the cattle. Also, cattle urine and cow dung are important resources that could enhance soil fertility. **If the floor of the cattle shed is constructed as pucca floors with cement and stones/ bricks, this would enable better collection of dung and cattle urine as well as protect cattle from infections.** A tank constructed for urine collection could be used to make liquid manure to enhance soil fertility. A fodder trough would facilitate proper feeding of cattle and minimise waste of fodder.

5.1.4.2. The area of the cattle shed floor for 6 heads of cattle is 26.95 sqm (7.7mx3.5m). For constructing the cattle shed floor in cement concrete, a 1 cum fodder trough (7.7mx 0.4m x0.65m) and a cattle urine collection tank of 250 litres

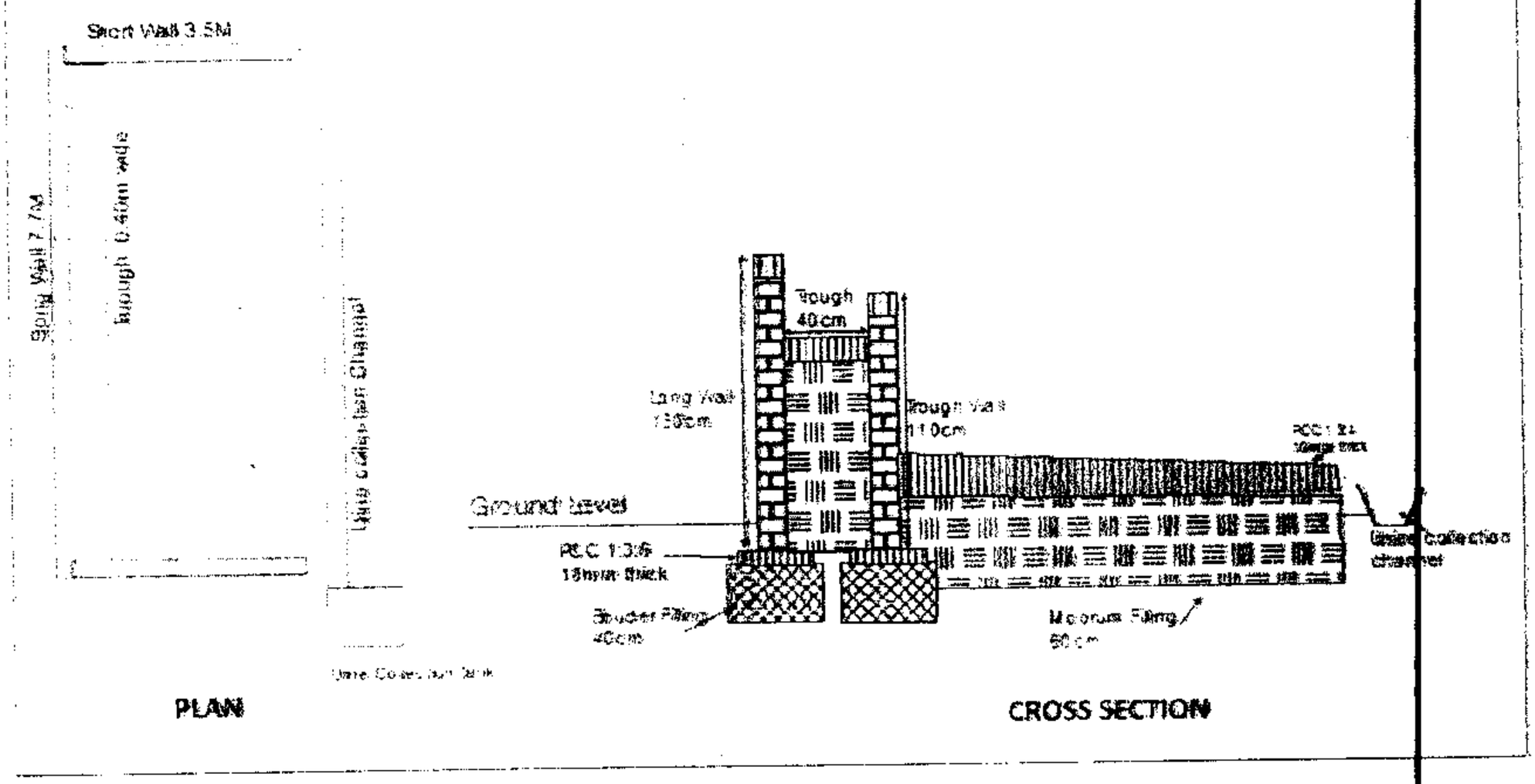

Figure 5-4: Typical drawing for cattle shed

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Table 5-5: Typical Cost Estimate for Cattle shed for 6 cattle

Sr. no.	Detail	No.	Length	Width	Height/ Depth	Qty.	Unit	Rate	Amount
1	Excavation in Hard Soil for Foundation								
	Long Wall-1	1	8	1	0.5	4			
	Long Wall-2	1	8	1	0.2	1.6			
	Sort Wall	2	3.5	1	0.5	3.5			
	Floor	1	7.3	3	0 3	6.57			
	Total Excavation in Hard Soil					**15.67**	cum	73.4	1150
2	Excavation in Hard Moorum for Foundation								
	Long Wall-1	1	8	1	0.5	4			
	Sort Wall	2	3.5	1	0.5	3.5			
	Total Excavation In Hard Moorum					**7.5**	cum	97.7	733
3	Moorum filling for foundation								
	Floor	1	7.3	3	0.6	13.14			
	Total Moorum filling for foundation					**13.14**	cum	131.4	1727
4	Boulder filling for foundation								
	Long Wall-1	1	8	1	0.6	4.8			
	Sort Wall	2	3.5	1	0.6	4.2			
	Total Boulder filling for foundation					**9**	cum	330.2	2972
5	PCC for Foundation in 1 3 6								
	Long Wall-1	1	7.7	0.4	0.1	0.308			
	Long Wall-2	1	7.7	0 4	0.1	0.308			
	Sort Wall	2	3.5	0.4	0.1	0.28			
	Total PCC for Foundation In 1:3:6					**0.896**	cum	2249.4	2015
6	Brick Masonry in 1:6 up To DPC Level								
	Long Wall-1	1	7.7	0 2	0.7	1078			
	Long Wall-2	1	7.7	0.2	0 7	1078			
	Sort Wall	2	3.5	0 2	0.7	0 98			
	Total Brick Masonry In 1:7 up To DPC Level					**3.136**	cum	3000.1	9408
7	DCC for Wall in 1 3 6								
	Long Wall-1	1	7.7	0.2	0 05	0 077			
	Long Wall-2	1	7.7	0 2	0 05	0.077			
	Sort Wall	2	3.5	0 2	0 05	0 07			
	Total DPC for Wall in 1:3:6					**0.224**	Cum	2249.4	504

Sr. no.	Detail	No.	Length	Width	Height/ Depth	Qty.	Unit	Rate	Amoun
8	Brick Masonry in 1:4 for supper structure								
	Long Wall-1	1	7.7	0.2	3	4.62			
	Pillar for Long Wall-2	2	0.2	0.2	2.5	0.2			
	Sort Wall	2	3.5	0.2	2.75	3.85			
	Trough	1	7.7	0.2	0.65	1.001			
	Deduction for ventilator	-4	1.2	0.2	0.6	-0.576			
	Total Brick Masonry in 1:6 for supper structure					**9.095**	cum	3143.8	28593
9	PCC in 1:2:4								
	Floor	1	7.7	3.5	0.1	2.695			
	Top of Trough	1	7.7	0.2	0.1	0.154			
	Total PCC in 1:2:4					**2.849**	cum	2926	8336
10	Plastering 12 mm thick in 1:4 CM								
	Long Wall-1	1	7.7	1.5		11.55			
	Sort Wall	2	3.5	1.5		10.5			
	Trough	2	7.7	1.5		23.1			
	Total Plastering 12 mm thick in 1:4 CM					**45.15**	sqm	167	7540
11	Roof with 0.63 mm GI sheet	**1**	**8**	**4.1**	-	**32.8**	sqm	433.5	14219
12	Provision of 65x65x5mm MS angle for GI Sheet Laying (Shorter Span)	2	4.1	-	-	**40.2**	Kg	69.2	2780
13	Provision of 40mm dia MS pipe for GI Sheet Laying (Longer Span)	3	8			**86.6**	Kg	69.2	5995
14	Ventilator 1.2m x 0.6m					**4**	No.	750	3000
15	Drinking Water Tank 1000 Lit								5000
16	Urine Collection Tank 250 Lit								1250
17	Clamp and other hard ware item						LS		1000
	Total Cost								**96223**
	Note: Rates are taken from MP RES SOR applicable from 06 August 2012								
	Labour cost								9526 (20%)
	Material Cost								76697 (80%)