



Idea Plan Goat Housing and Equipment

No. IP 728-26

This Idea Plan is intended to provide educational information and ideas concerning housing and equipment for small herds of goats. The following attached drawings are based on historical plans and may not meet design and construction standards for your area:

Feed Racks for Goats (PSU 99)
Milk House, Milking Room & Milking Stand for Goats (PSU 100)
Walk-Thru Milking Parlor for Goats (PSU 101)
Loose Housing for 20 Goats & Kids (PSU 102)
Goat and Kid Barn (PSU 103)
Buck Barn (PSU 104)
Keyhole Goat Feeder (PSU 390)
Goat Tie Stall (PSU 391)
Buck (Goat) Yard (PSU 392)
Freestall Barn for Goats - 30 Milkers (PSU 394)
Tie Stall Barn for Goats - 30 Milkers (PSU 395)
Milking Barn and Milkhouse for 10 Goats (USDA 6255)
Milking Barn and Milkhouse for 10 Goats (USDA 6256)

If you decide to build a facility similar to any of these plans, be sure to check building requirements for your area. Your local building inspector, engineer, building supplier, or building contractor can help you determine what is a safe and legal facility for goats in your area. In addition to the rules and regulations covering design and construction of buildings, be sure to consider how you will handle the manure and potential nuisance problems for neighbors, including flies, odor, and noise.

The Department of Agricultural and Biological Engineering at Penn State has a variety of educational material available related to agricultural and biological engineering. This material is intended to help Pennsylvania farmers and others develop buildings and facilities for modern, environmentally-compatible farm facilities. The material can be used in conjunction with county extension staff, builders, suppliers, consulting engineers, the Natural Resources Conservation Service, financial management advisors, farm lenders, veterinarians, and others to assemble a facilities plan suitable for local conditions.

Publications are available in the areas of agricultural safety and health, animal housing systems, building and farmstead planning, crops and greenhouses, machinery systems and tractors, residential housing, soil and water resources, and solid waste management. Contact your county Penn State Extension Office for more information on these subjects. You can also obtain an index of publications concerning the above areas by calling, writing, faxing or e-mailing:

Department of Agricultural and Biological Engineering
246 Agricultural Engineering Building
University Park, PA, 16802-1909
Telephone: (814)865-7685
Fax: (814)863-1031
E-mail: abe@psu.edu.
www.abe.psu.edu/factseets

(over)

For more information, the following comprehensive handbook covering design and construction of small pole buildings is available:

NRAES-01—Pole and Post Buildings, Design and Construction (1984).
\$6.00 (Contact office below for current pricing).

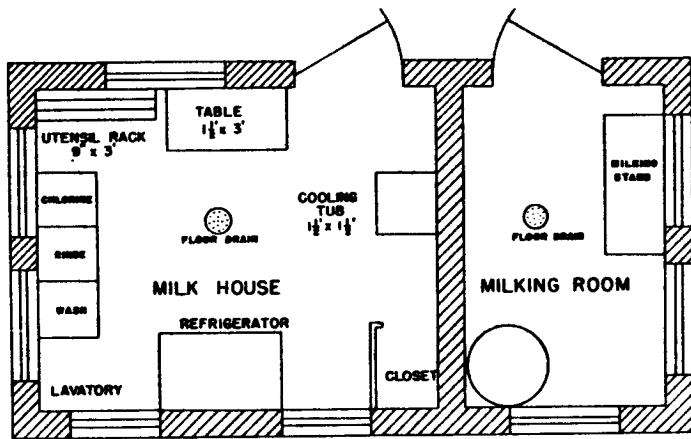
Order from NRAES, Cooperative Extension, B-16 Morrison Hall, Ithaca, NY14853
(607)255-7654 FAX: (607)254-8770 Email: NRAES@cornell.edu

Information may also be obtained by contacting the following:

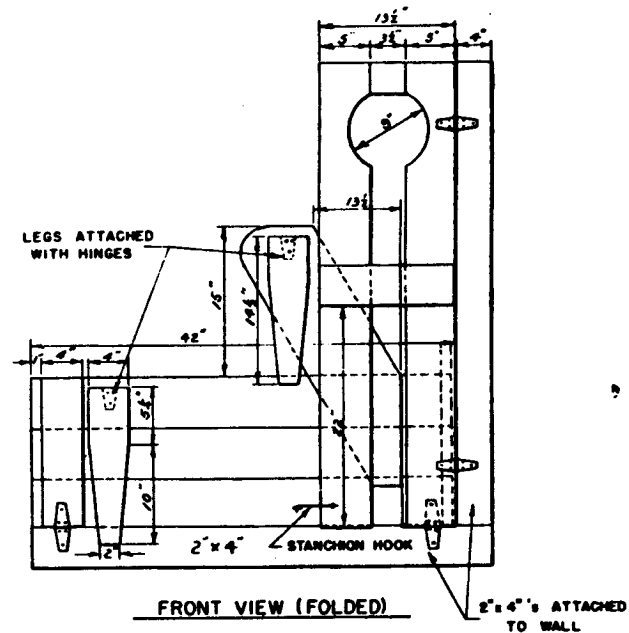
American Dairy Goat Association
P.O. Box 865
Spindale, NC 28160
Phone: 704-286-3801, Fax: 704-287-0476, Email: ADGAJDW2@aol.com

This publication is available in alternative media on request.

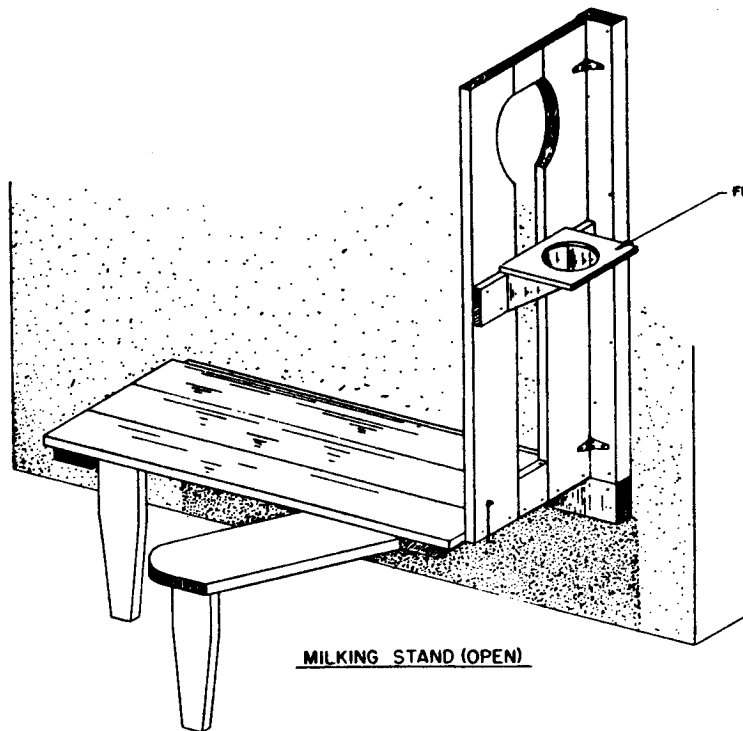
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FLOOR PLAN



FRONT VIEW (FOLDED)



MILKING STAND (OPEN)

FEED-PAN BRACKET

NOTE: MILK HOUSE AND MILKING ROOM FLOORS TO BE OF SMOOTH CONCRETE.

WALLS MAY BE OF BLOCK OR FRAME CONSTRUCTION

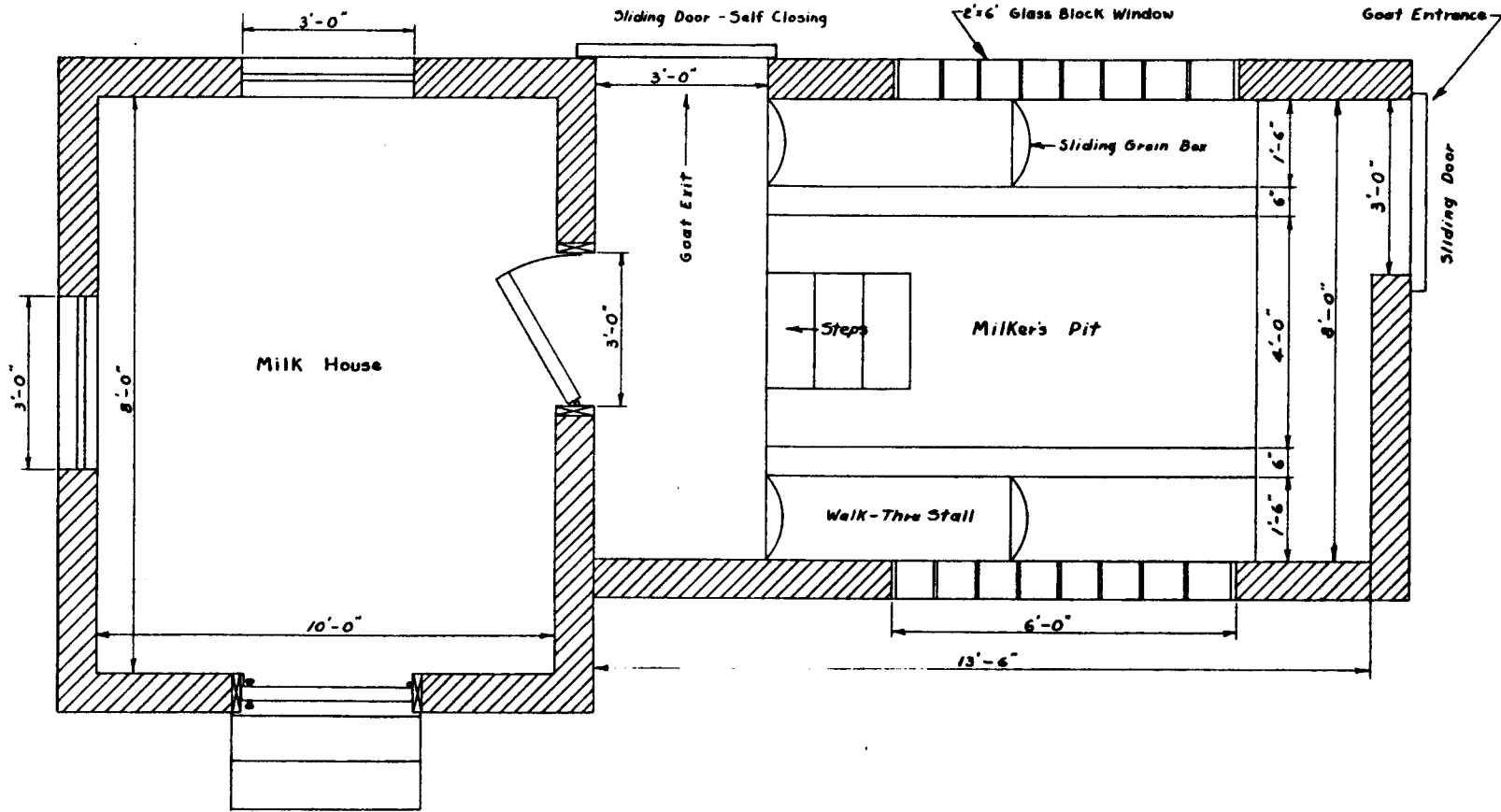
TO BE USED WITH:

DAIRY GOAT CORRESPONDENCE COURSE 105
LESSON NO. 5

THE PENNSYLVANIA STATE UNIVERSITY
AGRICULTURAL EXTENSION SERVICE
**MILK HOUSE, MILKING ROOM,
& MILKING STAND FOR GOATS**

ORDER NO 728-100

SHEET 1 OF 1



FLOOR PLAN

TO BE USED WITH:
DAIRY GOAT CORRESPONDENCE COURSE 105
LESSON NO. 5

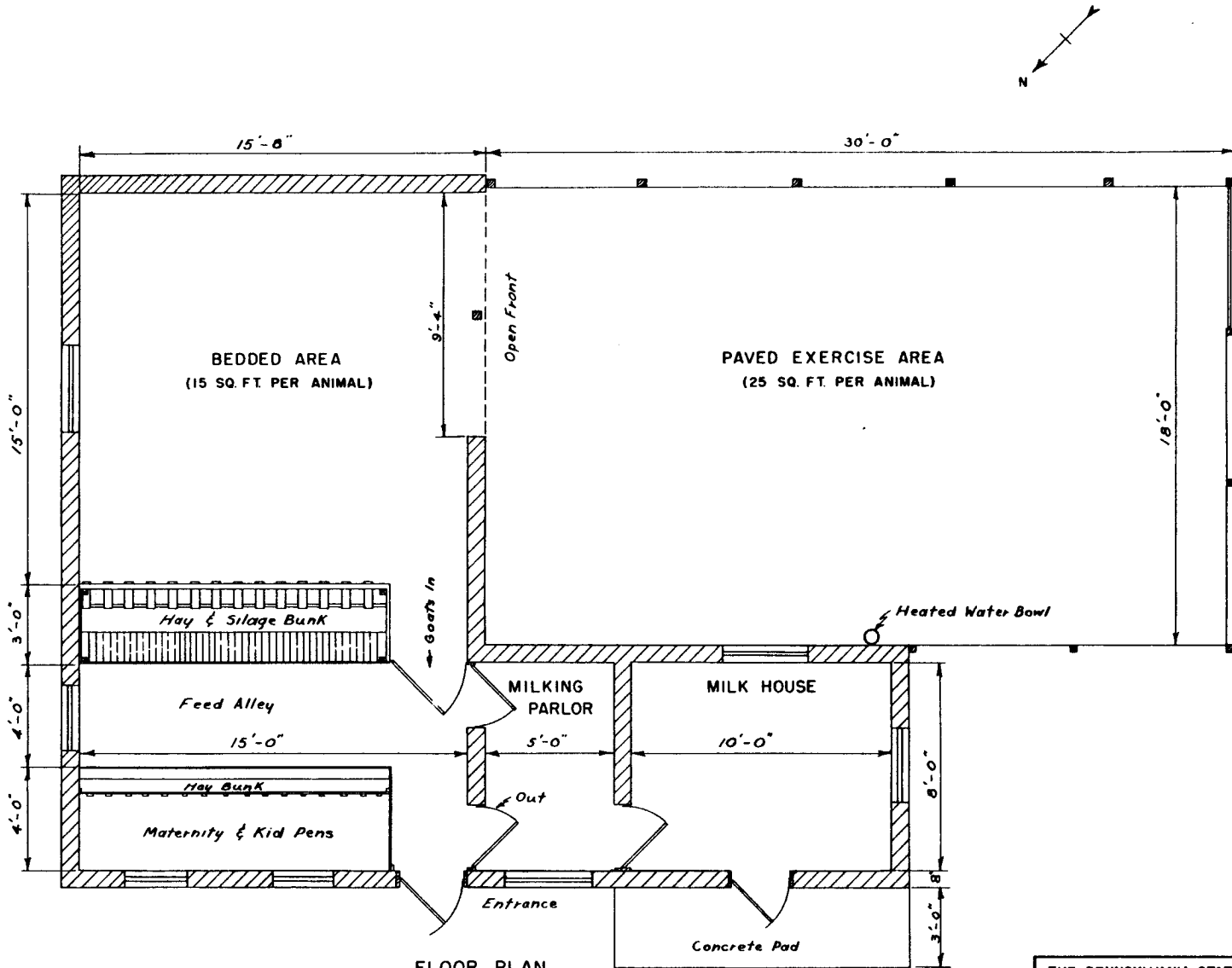
THE PENNSYLVANIA STATE UNIVERSITY
 AGRICULTURAL EXTENSION SERVICE

**WALK-THRU
 MILKING PARLOR FOR GOATS**

ORDER NO. 728-101

SHEET 1 OF 1

26/7/53

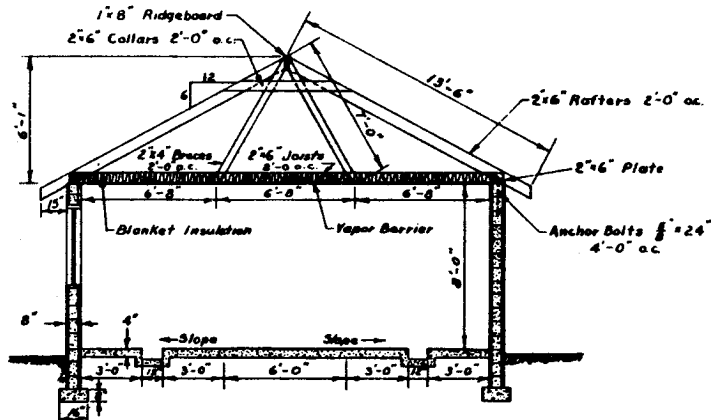


FLOOR PLAN

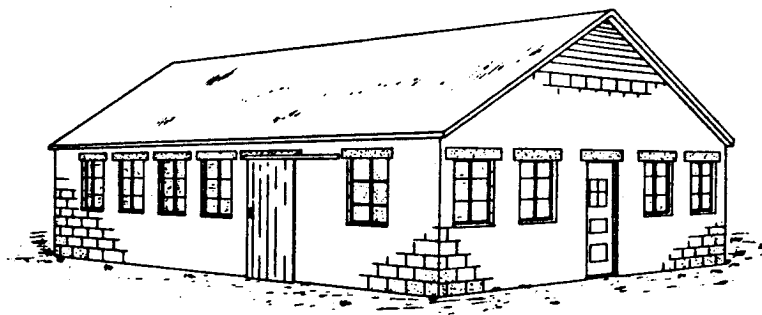
TO BE USED WITH:
DAIRY GOAT CORRESPONDENCE COURSE 105
LESSON 5

THE PENNSYLVANIA STATE UNIVERSITY AGRICULTURAL EXTENSION SERVICE	
LOOSE HOUSING FOR 20 GOATS & KIDS	
ORDER NO 728-102	SHEET 1 OF 1

26/7/59

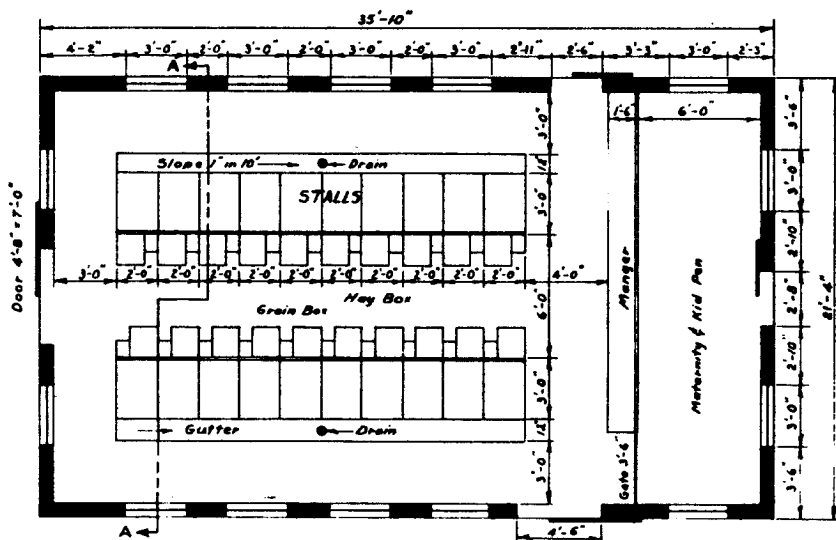


CROSS SECTION A-A

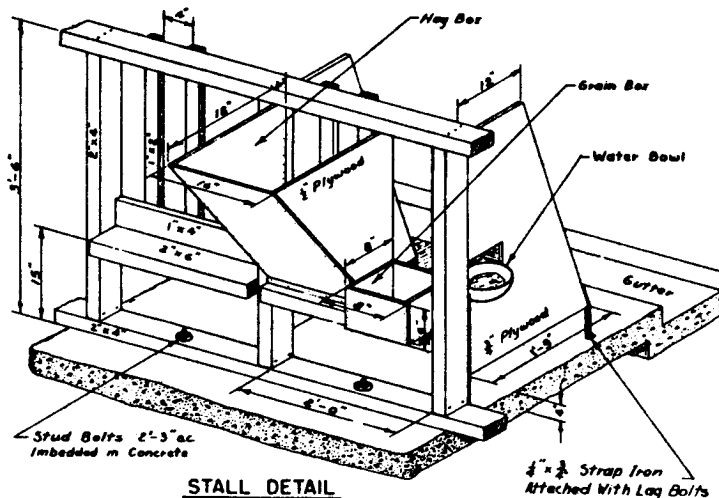


PERSPECTIVE

Note:
For large goats stall width may
be increased to 2'-6".



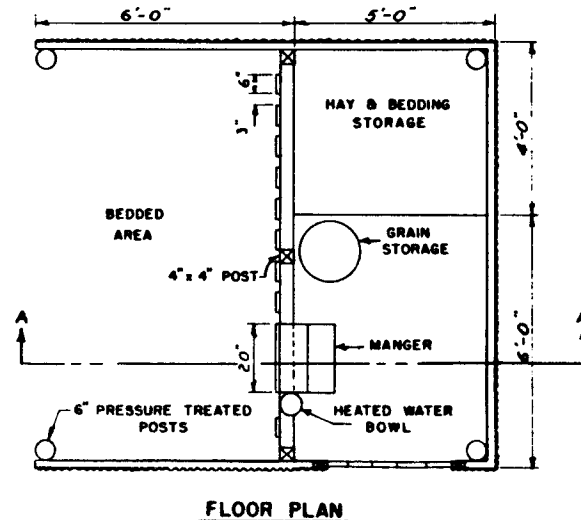
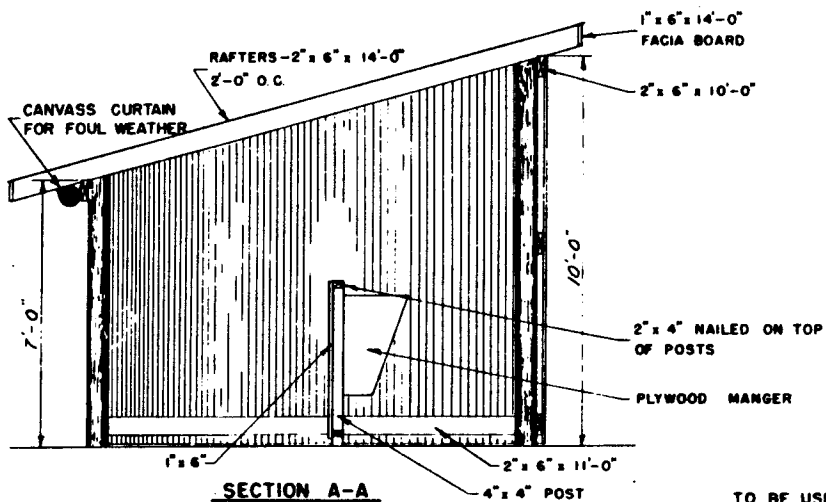
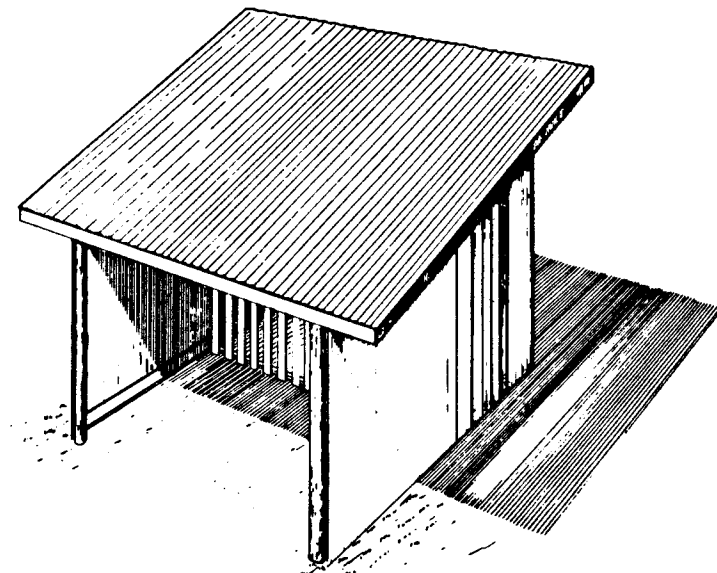
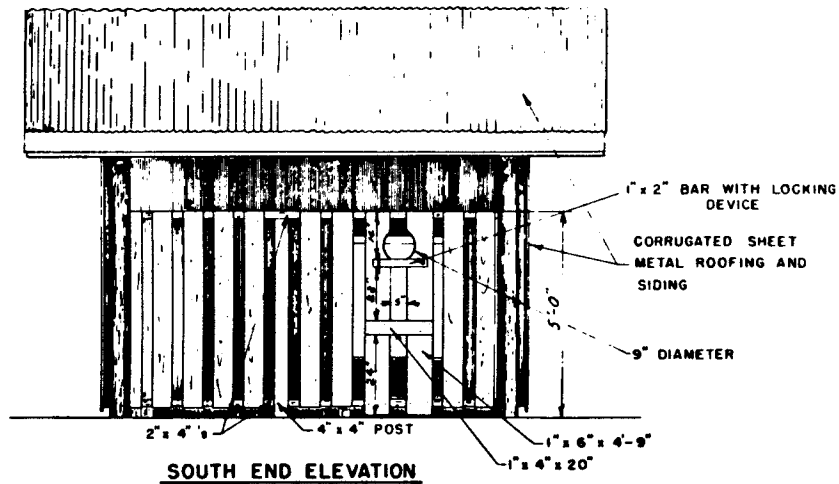
FLOOR PLAN



STALL DETAIL

THE PENNSYLVANIA STATE UNIVERSITY
 AGRICULTURAL EXTENSION SERVICE
GOAT AND KID BARN
 ORDER NO. 728-103 SHEET 1 OF 1

TO BE USED WITH:
DAIRY GOAT CORRESPONDENCE COURSE
 LESSON NO. 5



TO BE USED WITH:

DAIRY GOAT CORRESPONDENCE COURSE 105

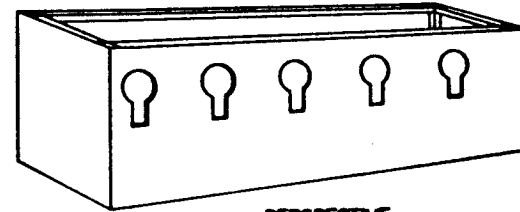
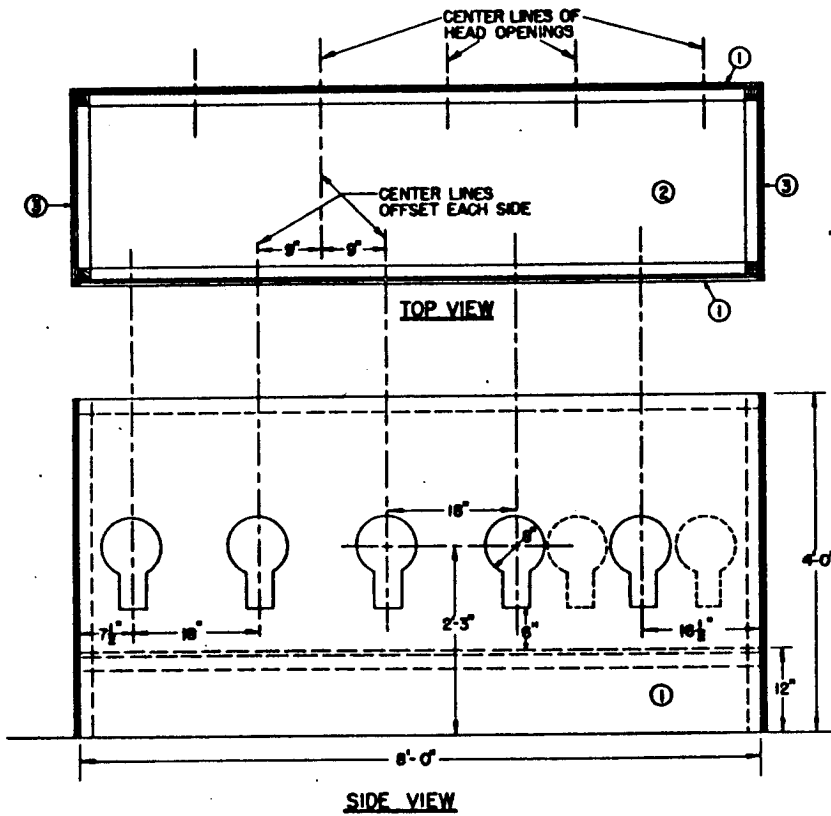
LESSON NO. 4

THE PENNSYLVANIA STATE UNIVERSITY
AGRICULTURAL EXTENSION SERVICE

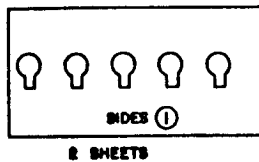
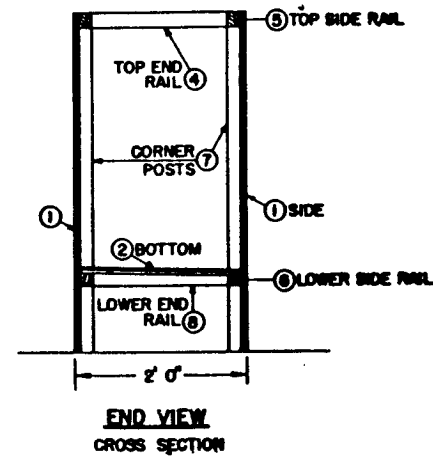
BUCK BARN

ORDER NO. 728-104

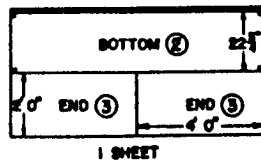
SHEET 1 OF 1



PERSPECTIVE



CUTTING DIAGRAM FOR PLYWOOD
USE 1/2" EXTERIOR PLYWOOD



LIST OF MATERIALS 8' UNIT, 10 GOATS

- ① ② ③ 1/2" EXTERIOR PLYWOOD
- ④ ⑧ END RAILS 4 PIECES 2x2x24'
- ⑤ ⑥ SIDE RAILS 4 PIECES 2x2x6'-0"
- ⑦ CORNER POSTS 4 PIECES 2x2x3'-0"

USE GALVANIZED NAILS

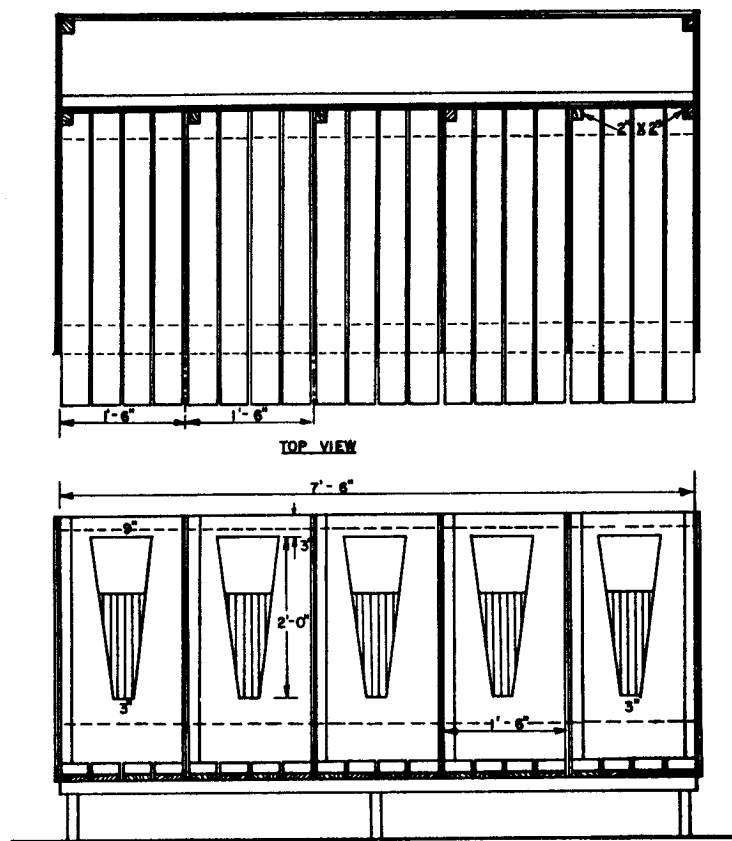
THE PENNSYLVANIA STATE UNIVERSITY
COOPERATIVE EXTENSION SERVICE

KEYHOLE GOAT FEEDER

DESN BY: A.R.B.
TRCD BY: K.H.
DATE: APRIL 1977

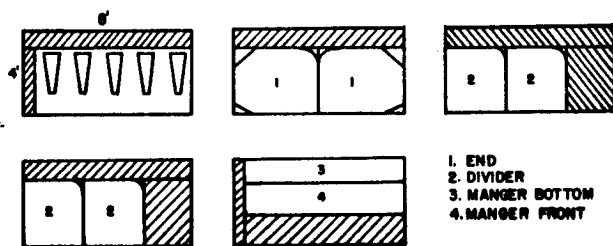
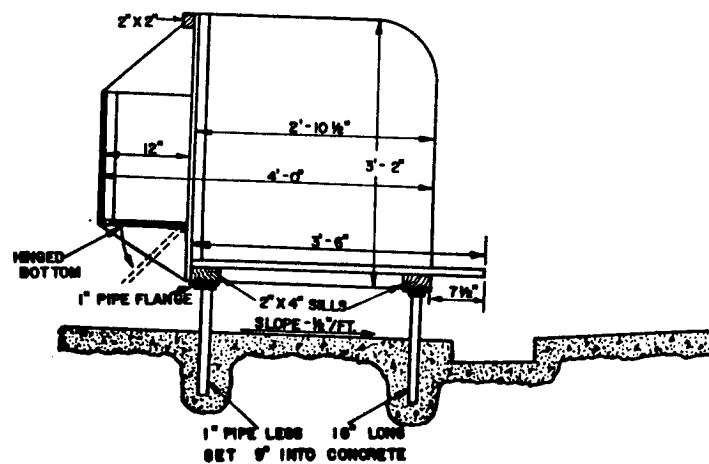
ORDER NO.
728-390

SHEET
1 OF 1



TOP VIEW

REAR VIEW

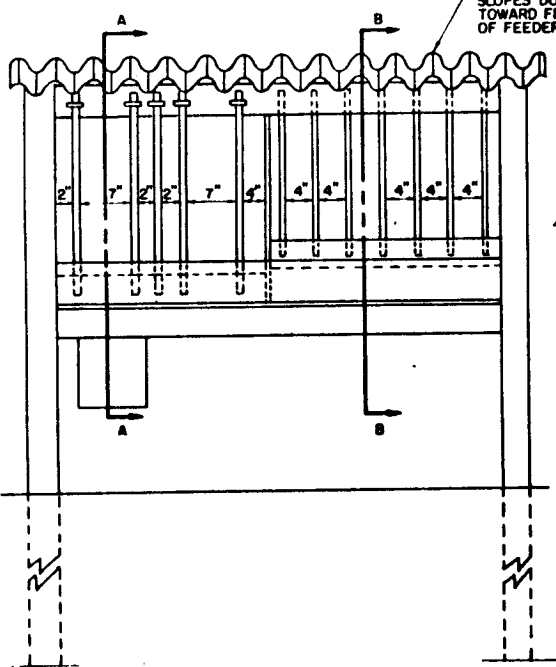


PLYWOOD CUTTING DIAGRAM

- 1. END
- 2. DIVIDER
- 3. MANGER BOTTOM
- 4. MANGER FRONT

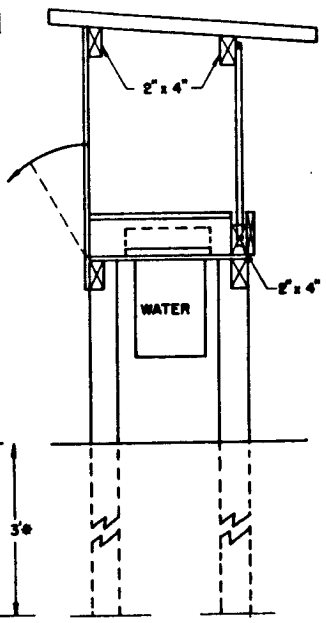
THE PENNSYLVANIA STATE UNIVERSITY COOPERATIVE EXTENSION SERVICE		
GOAT TIE STALL		
DRN BY: ARS	ORDER NO.	SHEET
TRCD BY: ARS	728-391	1 OF 1
DATE: MAR, 1977		

FRONT VIEW OF FEEDER

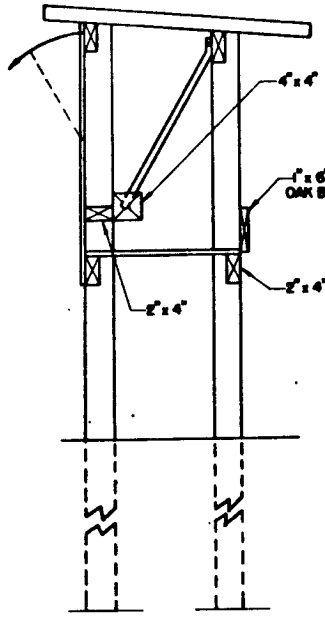


CORRUGATED ROOF SLOPES DOWN TOWARD FRONT OF FEEDER

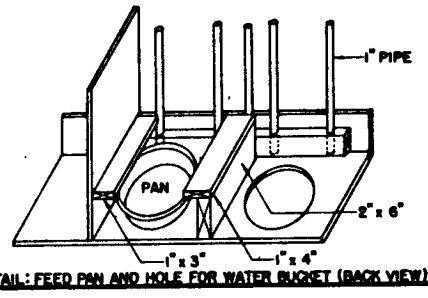
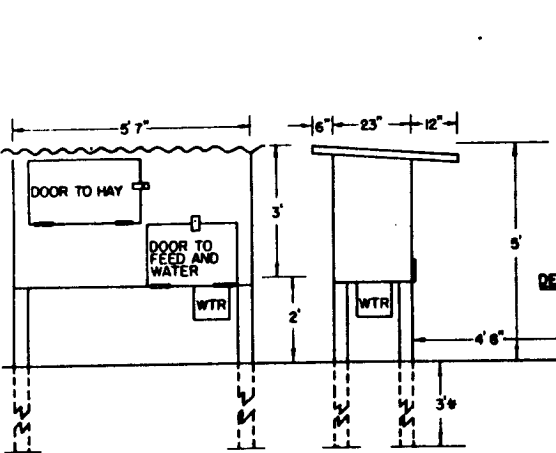
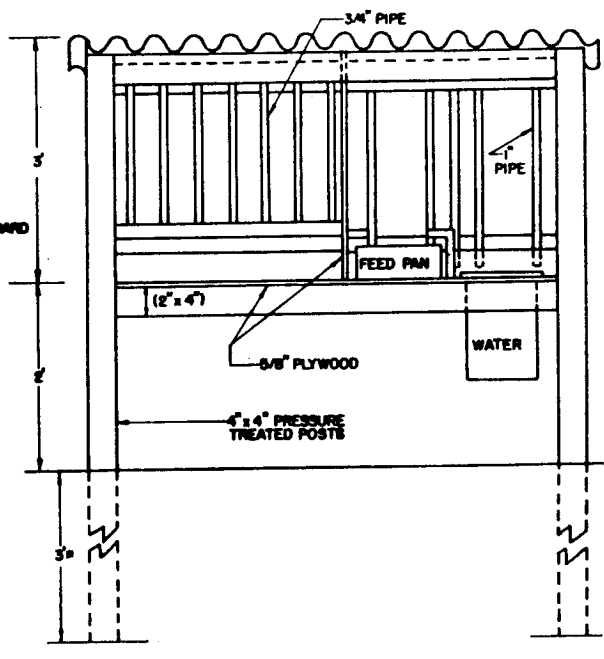
SECTION A-A



SECTION B-B

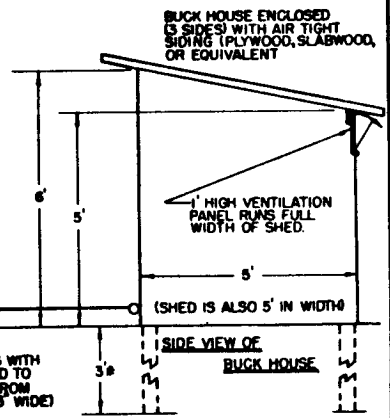


BACK VIEW OF FEEDER (REAR COVERING OMITTED FOR CLARITY)



DETAIL: FEED PAN AND HOLE FOR WATER BUCKET (BACK VIEW)

NOTES: ALL EXPOSED WOOD EDGES SHOULD BE COVERED WITH PROTECTIVE METAL OR HARDWARE CLOTH
 USE PIPE CLAMPS OR TINNERS TAPE TO ATTACH TOP ENDS OF PIPE ALONG HAY RACK AND FEED AREA.
 * DEPTH OF SUPPORT POSTS SHOULD BE 3' MINIMUM OR BELOW THE FROST LINE



BUCK HOUSE ENCLOSED (3 SIDES) WITH AIR TIGHT SIDING (PLYWOOD, SLABWOOD, OR EQUIVALENT)

SIDE VIEW OF BUCK HOUSE

BACK VIEW OF FEEDER

SIDE VIEW OF FEEDER

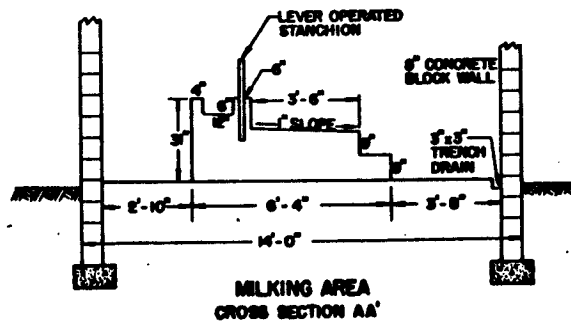
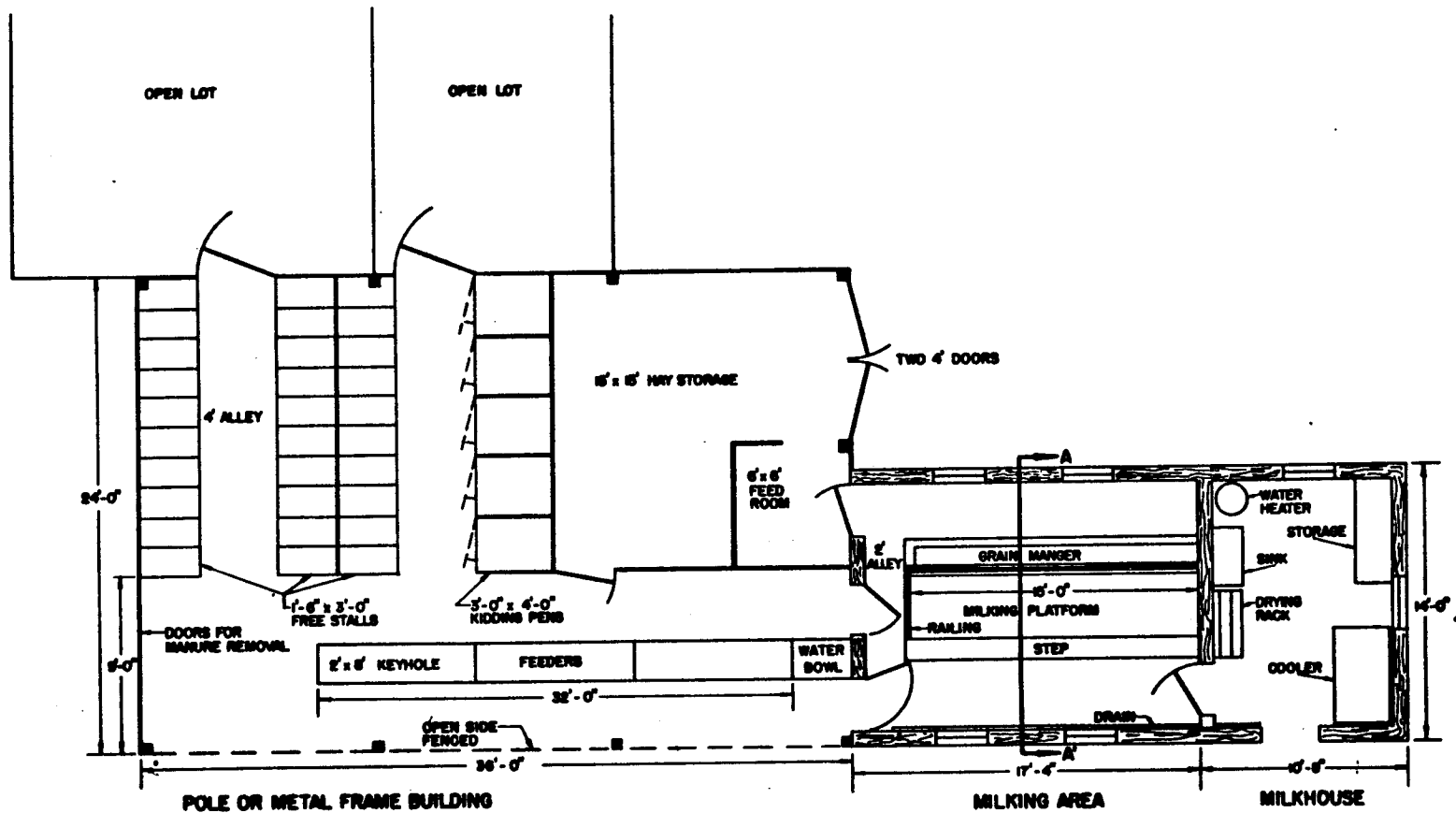
FEEDER: BACK AND SIDES ARE ENCLOSED WITH 5/8" PLYWOOD

NO. 7 UTILITY CABLE AT LEAST 25' IN LENGTH (VARIABLE)

TURNBUCKLE
AUTOMOBILE AXLE

HEAVY BULL RING WITH SWIVEL ATTACHED TO CHAIN (6' MAX.) FROM GOATS COLLAR (3' WIDE)

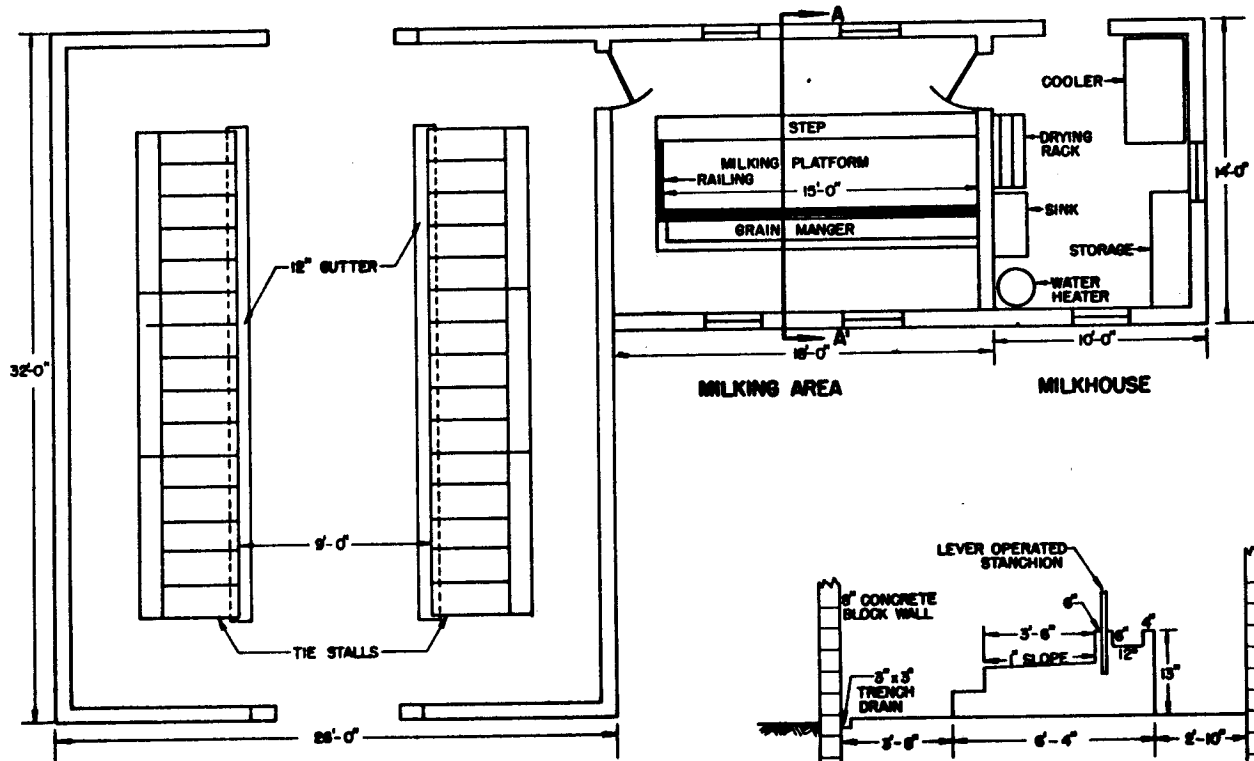
THE PENNSYLVANIA STATE UNIVERSITY COOPERATIVE EXTENSION SERVICE		
BUCK (GOAT) YARD		
DES BY: SA/BRB DWN BY: KMH DATE: 3/24/77	ORDER NO. 728-392	SHEET 1 OF 1



THE PENNSYLVANIA STATE UNIVERSITY
 COOPERATIVE EXTENSION SERVICE

**FREE STALL BARN
 FOR GOATS-30 MILKERS**

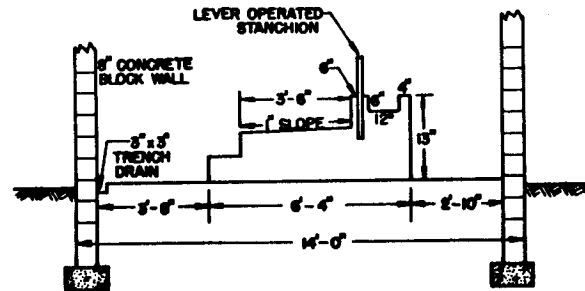
DRAWN BY: S.S./A.R.S. TYPED BY: K.J. DATE: APRIL 1977	ORDER NO. 728-394	SHEET 1 OF 1
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2 STORY BARN
HAY STORAGE ON 2nd FLOOR

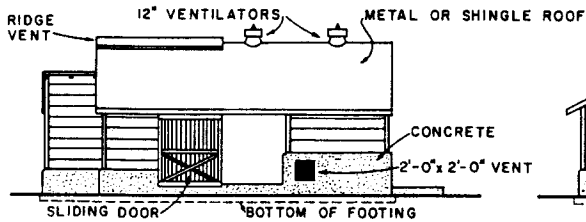
MILKING AREA

MILKHOUSE

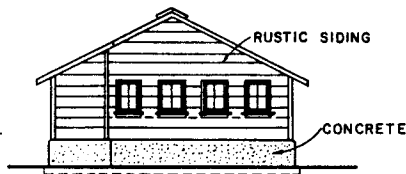


MILKING AREA
CROSS SECTION AA'

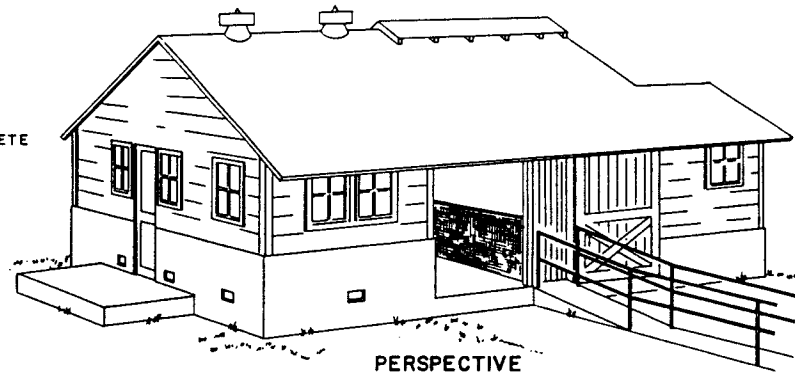
THE PENNSYLVANIA STATE UNIVERSITY COOPERATIVE EXTENSION SERVICE		
TIE STALL BARN FOR GOATS-30 MILKERS		
DRN BY SA/ARS TRCD BY: KM DATE: APRIL 1977	ORDER NO. 728 395	SHEET 1 OF 1



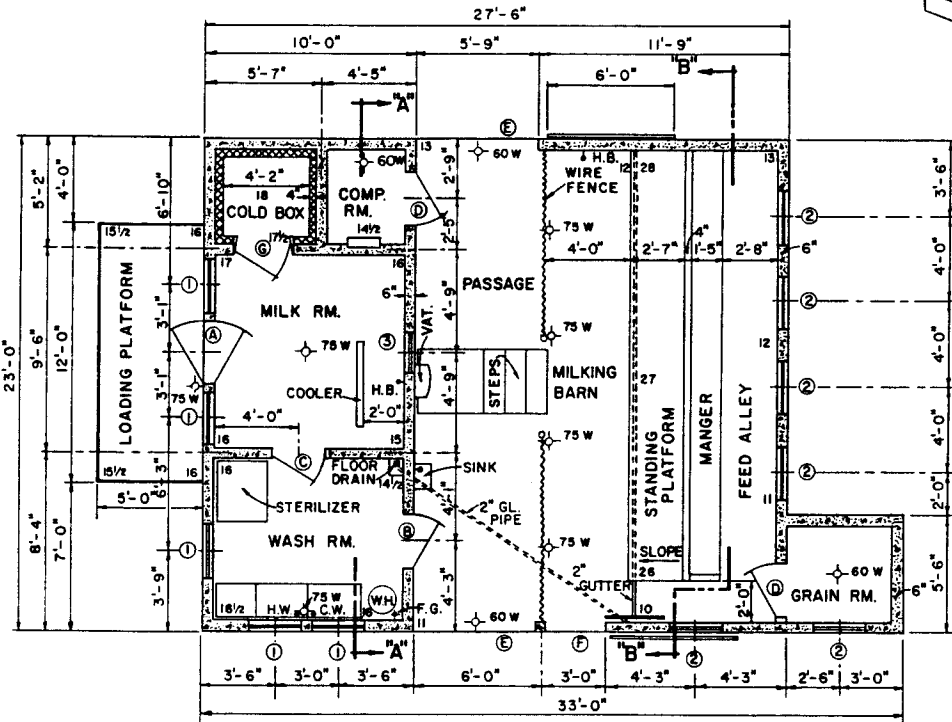
NORTH ELEVATION



EAST ELEVATION



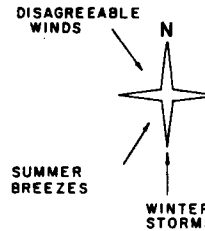
PERSPECTIVE



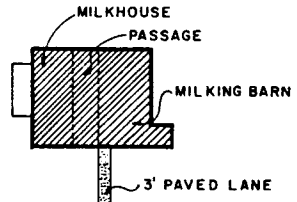
FLOOR PLAN

NOTE: CONSULT YOUR LOCAL HEALTH AND BUILDING CODE AUTHORITIES BEFORE STARTING CONSTRUCTION. CAPACITY: 10 GOATS

MILKHOUSE MUST BE AT LEAST 100 FEET FROM FEEDING BARN OR RACKS.



PLOT PLAN FOR WIND DIRECTIONS AS SHOWN



NOTE: THE MILKHOUSE SHALL BE LOCATED TO THE WINDWARD OF THE MILKING BARN, CORRALS, FEED SHEDS, ETC. CONSULT YOUR LOCAL INSPECTOR.

ELECTRICAL SYMBOLS

	CEILING OUTLETS, WATTS NOTED
	BRACKET OUTLETS, WATTS NOTED
	CUTOUT CABINET & MAIN SERVICE SWITCH
NOTE: ALL LIGHTS TO BE CONTROLLED FROM PANEL BOARD	

GENERAL SYMBOLS

H.B. •	HOSE BIBBS, COLD WATER
H.W. •	HOT WATER
C.W. •	COLD WATER
F.G. •	FUEL GAS

DOOR SCHEDULE

MARK	SIZE	TYPE	NO. REQ'D
(A)	3'-0" x 7'-0" x 1 1/4"	GLASS & PANEL - SCREENED	1
(B)	2'-6" x 6'-8" x 1 1/4"	SCREEN & PANEL	1
(C)	2'-6" x 6'-8" x 1 1/4"	SCREEN OR SCREEN & PANEL	1
(D)	2'-6" x 6'-8" x 1 1/4"	PANEL	2
(E)	6'-0" x 6'-8" x 1 1/4"	RUSTIC PANELS - ROLLING	2
(F)	2'-9" x 6'-8" x 1 1/4"	RUSTIC PANELS - ROLLING	1
(G)	2'-9" x 6'-8" x 1 1/4"	SPECIAL - REFRIGERATOR	1

WINDOW SCHEDULE

MARK	SIZE	TYPE	NO. REQ'D
(1)	2'-6" x 3'-0" x 1 1/4"	SASH, DROP-IN SCREENED	5
(2)	2'-6" x 3'-0" x 1 1/4"	SASH, DROP-IN	6
(3)	2'-0" x 2'-0"	SPECIAL	1
NOTE: ALL 2'-6" x 3'-0" SASH TO BE 4 LIGHT.			

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

THE PENNSYLVANIA STATE UNIVERSITY
AND
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING
MILKING BARN & MILKHOUSE
FOR 10 GOATS

CALIF. '77 6255 SHEET 1 OF 2

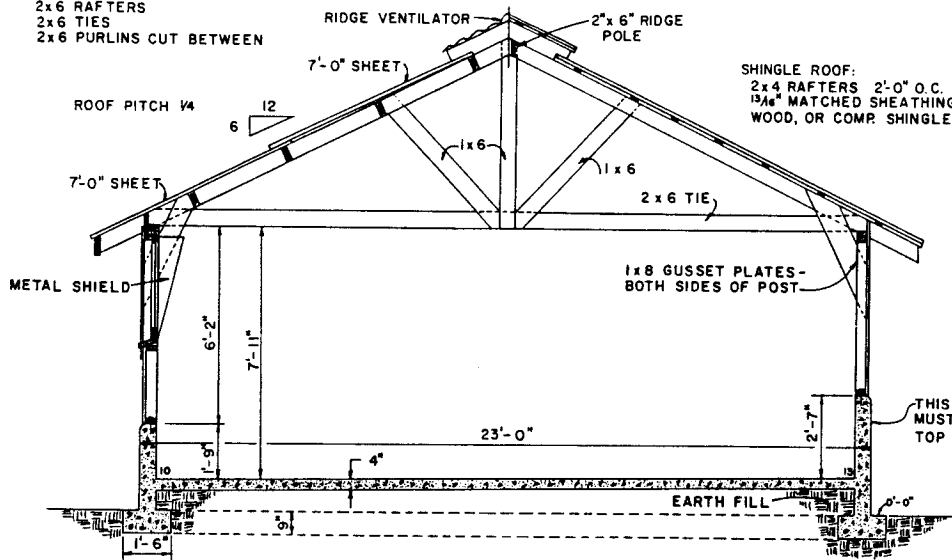
BASED ON: UNIV. OF CALIF. PLAN C-230-3-1,2,8,3.

METAL ROOF:
 2x6 RAFTERS
 2x6 TIES
 2x6 PURLINS CUT BETWEEN

RIDGE VENTILATOR
 2"x 6" RIDGE POLE

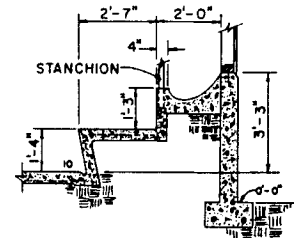
SHINGLE ROOF:
 2x4 RAFTERS 2'-0" O.C.
 1 3/8" MATCHED SHEATHING,
 WOOD, OR COMP. SHINGLE

NOTE:
 CONCRETE WALL MAY BE
 RAISED A FEW INCHES SO
 AS TO ELIMINATE THE STUDS
 UNDER THE WINDOWS. WHEN
 THIS STYLE MANGER IS USED,
 TOTAL LENGTH OF BARN IS
 DECREASED FROM 27'-6" TO
 25'-1".

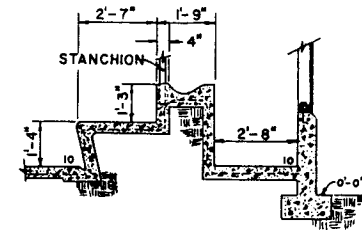


SECTION B-B

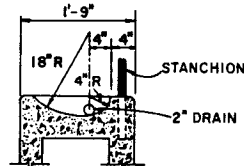
NOTE: CARRY FOOTINGS BELOW
 FROST LINE TO REST ON
 UNDISTURBED EARTH.



ALTERNATE MANGER

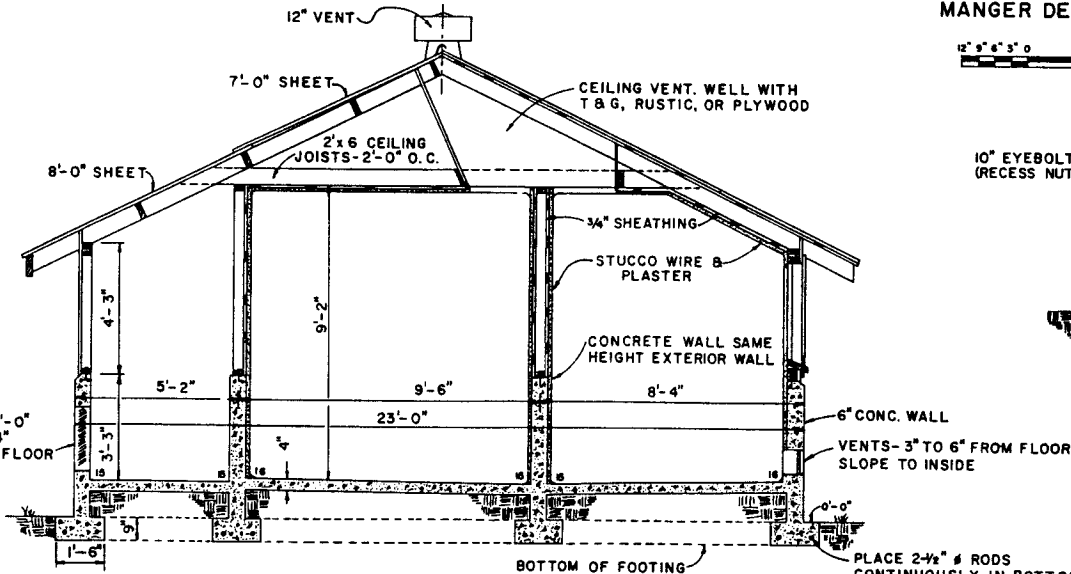


MANGER



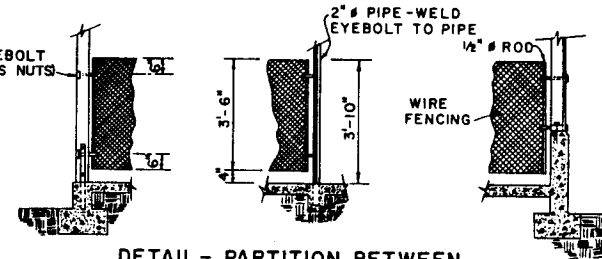
MANGER DETAIL

12" 6" 3" 0"



SECTION A-A

PLACE 2-1/2" # RODS
 CONTINUOUSLY IN BOTTOM
 OF FOOTINGS.



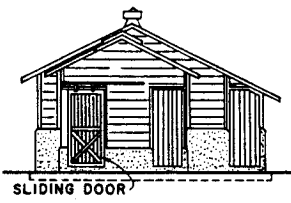
DETAIL - PARTITION BETWEEN
 MILKING BARN & PASSAGE

12" 6" 3" 0"

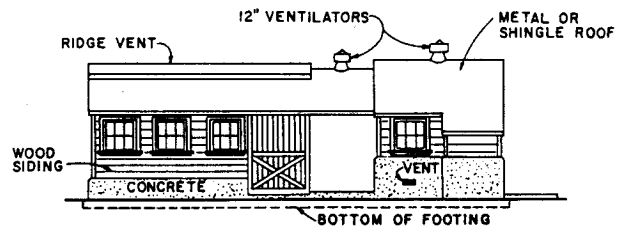
COOPERATIVE EXTENSION WORK IN
 AGRICULTURE AND HOME ECONOMICS

THE PENNSYLVANIA STATE UNIVERSITY
 AND
 UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING
 MILKING BARN & MILKHOUSE
 FOR 10 GOATS

CALIF. '77 6255 SHEET 2 OF 2

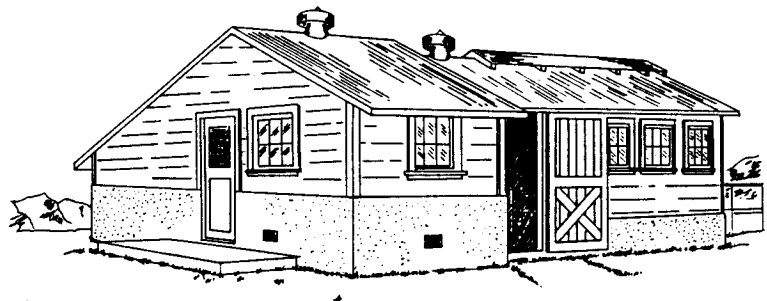


EAST VIEW



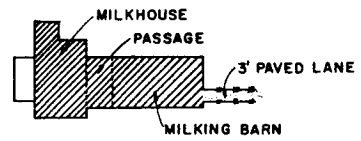
NORTH VIEW

ELEVATIONS



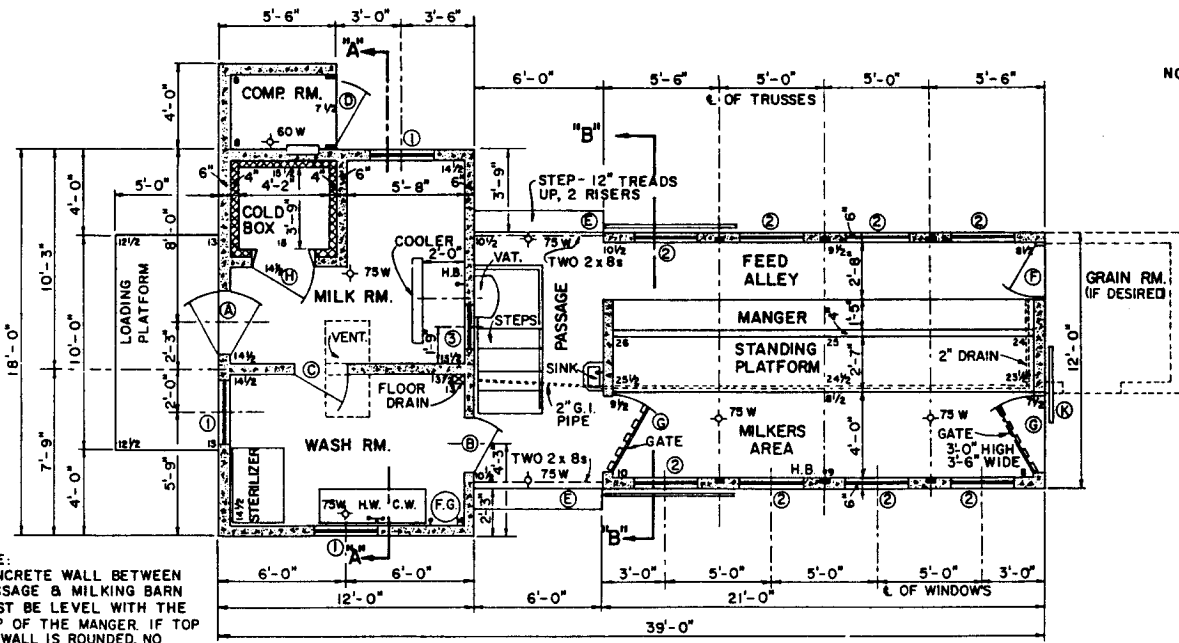
PERSPECTIVE
NO SCALE

MILKHOUSE MUST BE AT LEAST 100 FT. FROM FEEDING BARN OR RACKS



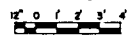
NOTE:
THE MILKHOUSE SHALL BE LOCATED TO THE WINDWARD OF THE MILKING BARN, CORRALS, FEED SHEDS, ETC. CONSULT YOUR LOCAL INSPECTOR.

PLOT PLAN FOR WIND DIRECTIONS AS SHOWN

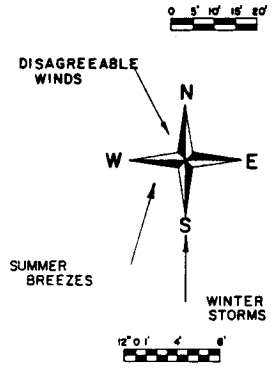


NOTE:
CONCRETE WALL BETWEEN PASSAGE & MILKING BARN MUST BE LEVEL WITH THE TOP OF THE MANGER IF TOP OF WALL IS ROUNDED, NO FURTHER FRAMING OR WALL IS REQUIRED.

FLOOR PLAN

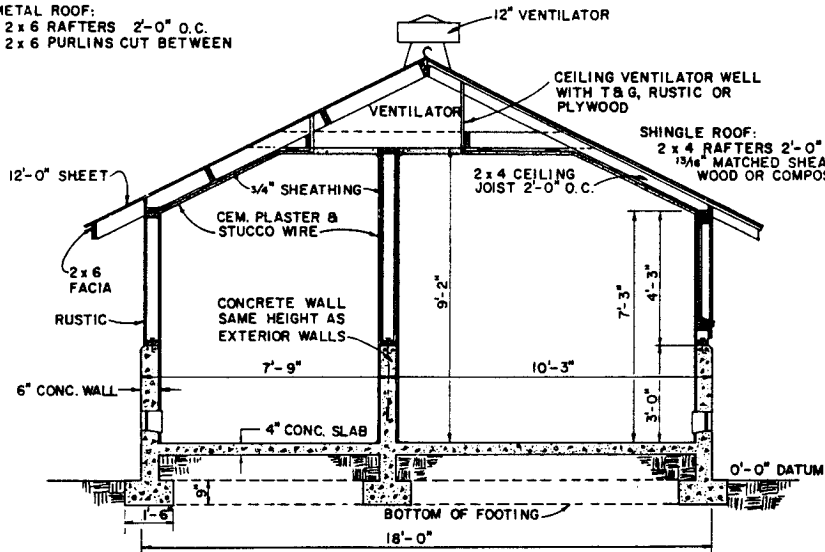


BASED ON: UNIV. OF CALIF. PLAN C-231-3



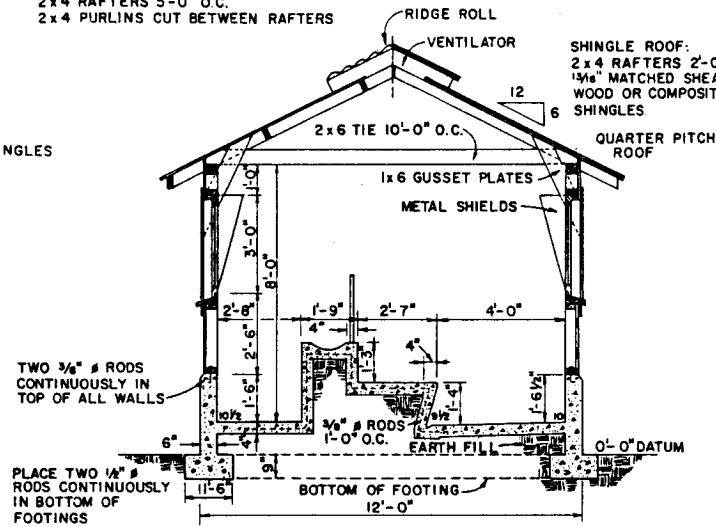
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS		
THE PENNSYLVANIA STATE UNIVERSITY		
AND UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING		
MILKING BARN & MILKHOUSE FOR 10 GOATS		
CALIF. '77	6256	SHEET 1 OF 2

METAL ROOF:
2 x 6 RAFTERS 2'-0" O.C.
2 x 6 PURLINS CUT BETWEEN



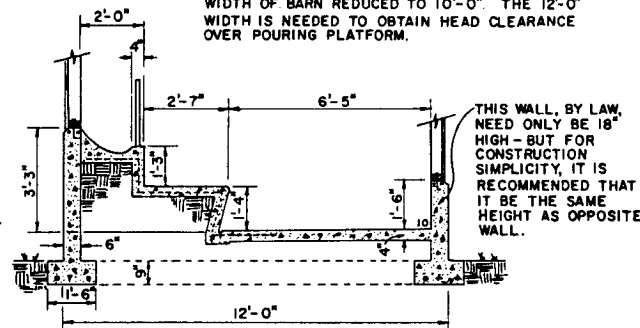
SECTION "A-A"

METAL ROOF:
2 x 4 RAFTERS 5'-0" O.C.
2 x 4 PURLINS CUT BETWEEN RAFTERS



SECTION "B-B"

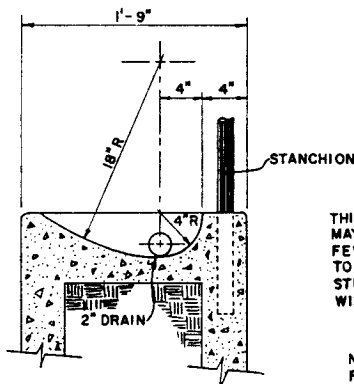
NOTE:
IF PIPELINE SYSTEM IS USED, MILKERS AREA MAY BE REDUCED FROM 6'-5" TO 4'-5" AND TOTAL WIDTH OF BARN REDUCED TO 10'-0". THE 12'-0" WIDTH IS NEEDED TO OBTAIN HEAD CLEARANCE OVER POURING PLATFORM.



ALTERNATE SECTION "B-B"

THIS CONCRETE WALL MAY BE RAISED A FEW INCHES SO AS TO ELIMINATE THE STUDS UNDER THE WINDOWS.

NOTE:
FRAMING ABOVE TO BE SAME AS SECTION "B-B"



MANGER DETAIL



GENERAL SYMBOLS

M.B. •	HOSE BIBBS, COLD WATER
M.W. •	HOT WATER
C.W. •	COLD WATER
F.G. +	FUEL GAS

ELECTRICAL SYMBOLS

MARK	DESCRIPTION
⊙	CEILING OUTLET, WATTS NOTED
⊙	BRACKET OUTLETS, WATTS NOTED
⊙	CUTOUT CABINET & MAIN SERVICE SWITCH
ALL LIGHTS TO BE CONTROLLED FROM PANEL BOARD	

DOOR SCHEDULE

MARK	SIZE	TYPE	NO. REQ'D.
Ⓐ	3'-0" x 7'-0" x 1 1/2"	GLASS & PANEL - SCREENED	1
Ⓑ	2'-6" x 6'-8" x 1 1/4"	SCREEN & PANEL	1
Ⓒ	2'-6" x 6'-8" x 1 1/4"	SCREEN & PANEL OR SCREEN	1
Ⓓ	3'-0" x 6'-6" x 1 3/4"	RUSTIC PANEL	1
Ⓔ	6'-0" x 7'-2" x 1 3/4"	RUSTIC PANEL - SLIDING	2
Ⓕ	2'-6" x 6'-8" x 1 3/4"	RUSTIC PANEL	1
Ⓖ	3'-0" x 3'-6" x 1 3/4"	GATE	2
Ⓗ	SPECIAL	REFRIGERATOR	1
Ⓘ	3'-8" x 7'-2" x 1 3/4"	RUSTIC PANEL - SLIDING	1

WINDOW SCHEDULE

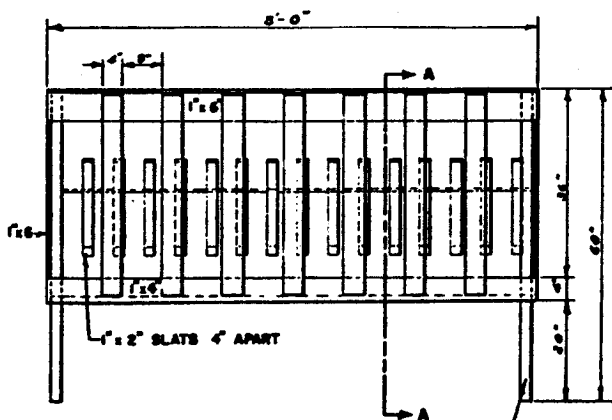
MARK	SIZE	TYPE	NO. REQ'D.
Ⓐ	3'-0" x 3'-0" x 1 1/2"	DROP-IN SASH - SCREENED	3
Ⓑ	3'-0" x 3'-0" x 1 1/2"	DROP-IN SASH	8
Ⓒ	SPECIAL		1
ALL 3'-0" x 3'-0" SASH TO BE 6 LIGHT			

COOPERATIVE EXTENSION WORK IN
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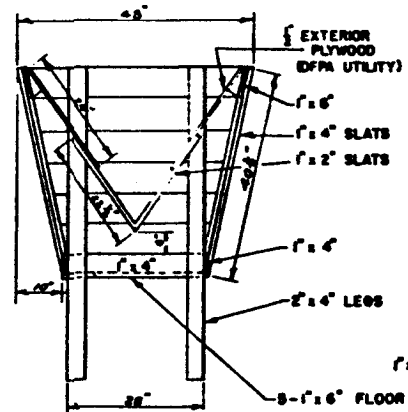
MILKING BARN & MILKHOUSE
FOR 10 GOATS

CALIF. '77	6256	SHEET 2 OF 2
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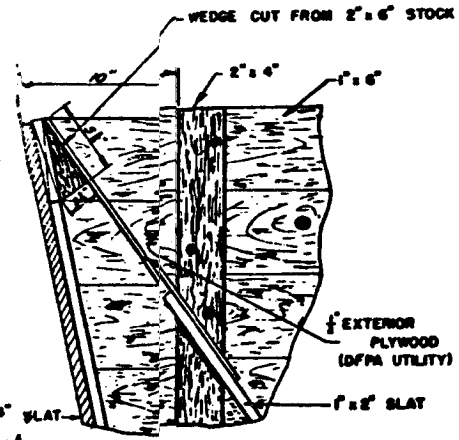


SIDE VIEW
DOUBLE FEEDER

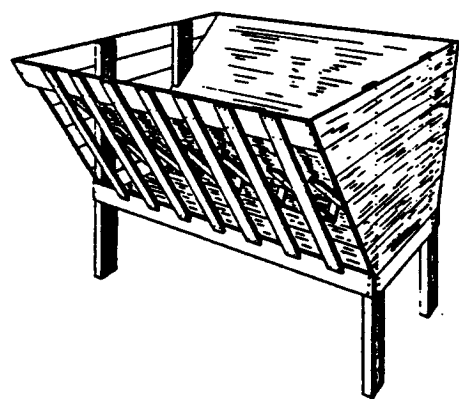
DIP LEGS IN WOOD PRESERVATIVE TO PREVENT DECAY.



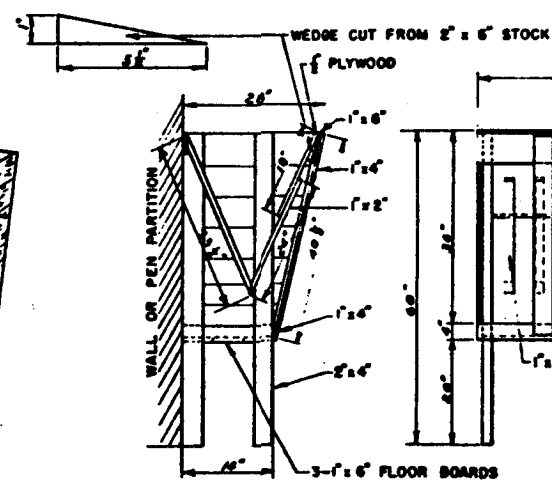
SECTION A-A



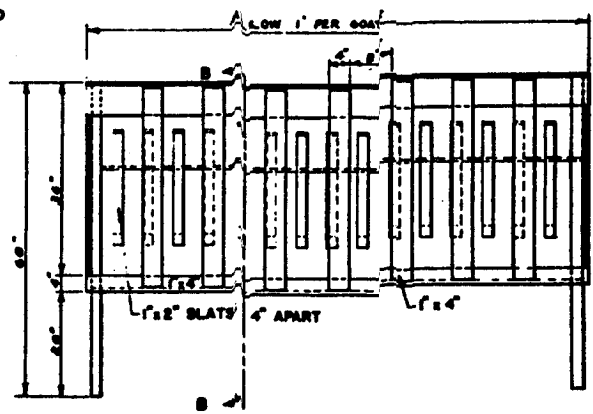
ENLARGED VIEW OF CORNER DETAIL



PERSPECTIVE VIEW
OF
DOUBLE FEEDER



SECTION B-B



SIDE VIEW
SINGLE FEEDER

TO BE USED WITH:
DAIRY GOAT CORRESPONDENCE COURSE 105
LESSON NO. 5

THE PENNSYLVANIA STATE UNIVERSITY AGRICULTURAL EXTENSION SERVICE	FEED RACKS FOR GOATS	
	ORDER NO. 728-99	SHEET 1 OF 1

27/2/53