

Important: Warranty Disclaimer for Plans

For the convenience of our clientele, this website makes available conceptual plans that can be helpful in planning buildings, facilities, or other structures. They were developed over many years by engineers at Land Grant universities through the former USDA Cooperative Farm Buildings Plan Exchange. *Regardless of the original intent, these are older plans that provide conceptual information only, and are not to be considered or used as construction plans.*

These plans do not claim to represent the most current technology or the most recent construction techniques, standards, or codes. For example, over the years there have been changes in the National Design Specifications for Wood Construction, changes in the strengths and types of building materials, and changes in fasteners, among other things. Those changes, along with variations in climate, building codes, and other factors, make it imperative that professional services be utilized for your specific project. Suggested services include, but are not limited to, structural design, assurance of compliance with codes and regulations, site selection, construction supervision, and provision for utilities, waste management, and access. *These plans do not replace the need for competent design assistance in developing safe, legal, and well-functioning agricultural buildings and systems.*

Neither the University of Kentucky, the Midwest Plan Service, the United States Department of Agriculture, nor any of the cooperating Land Grant universities, warranty these plans. They are for conceptual use only and are not for use as construction plans.

POSTS *

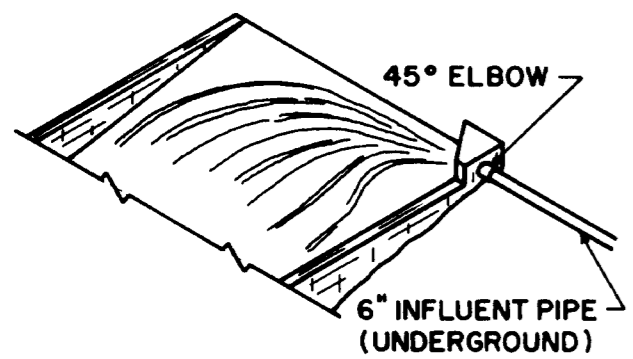
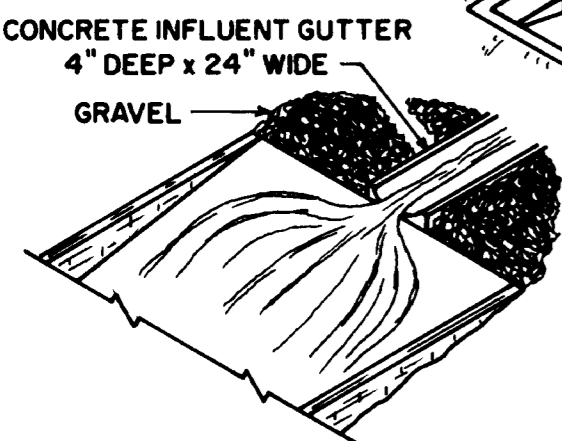
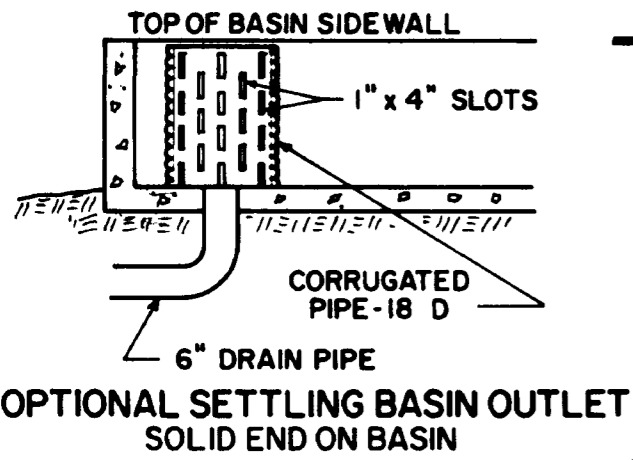
ABOVE GROUND LENGTH	SIZE	SPACING
0 - 5'	6" x 6"	5'
5' - 6'	6" x 6"	4'

*ROUGH SAWN LUMBER
ALL LUMBER TO BE PRESSURE TREATED

HORIZONTAL SUPPORTS **

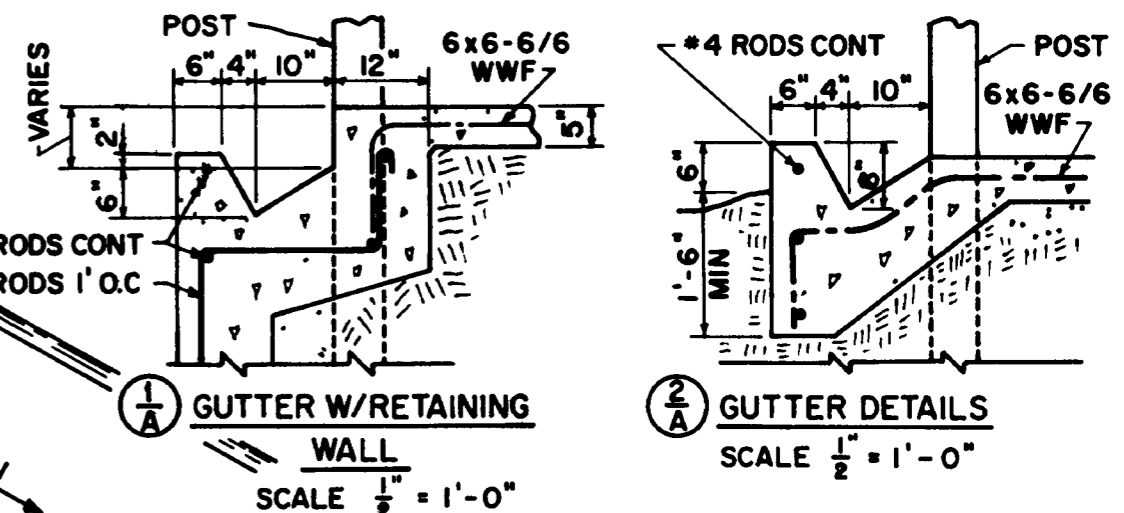
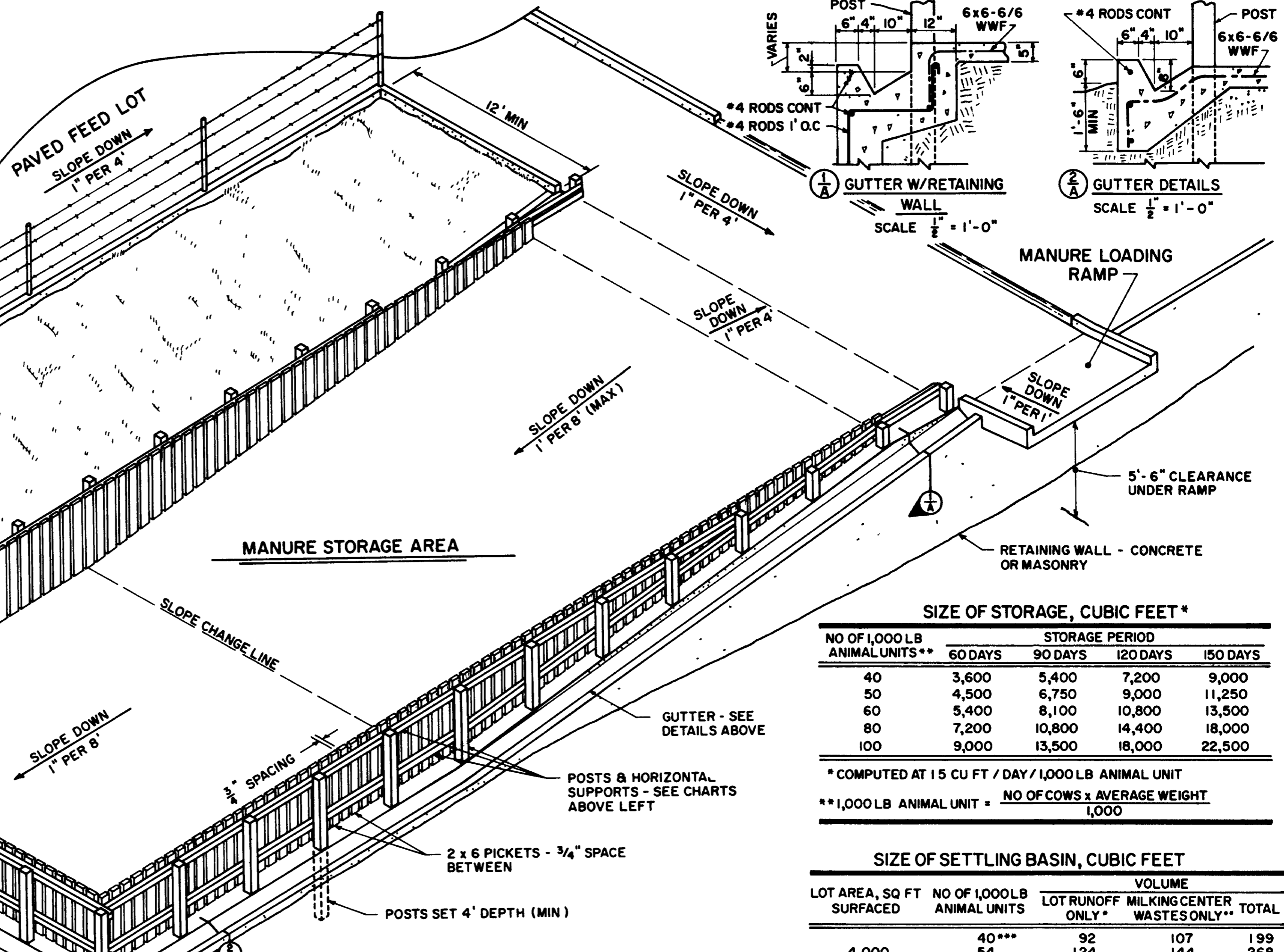
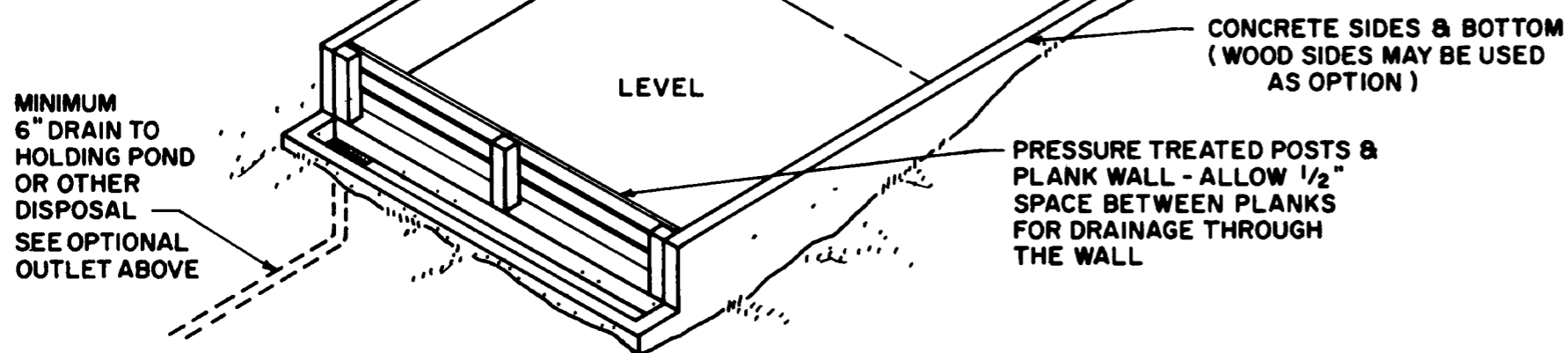
DEPTH	SIZE	MAXIMUM SPACING***
0 - 4'	4" x 4"	3'
4' - 6'	4" x 4"	2' - 6"

**ROUGH SAWN LUMBER OR DIMENSION LUMBER
***SPACING CAN VARY WITH CLOSER SPACING NEAR BOTTOM OF STORAGE



OPTIONAL SETTLING BASIN INLETS
BASIN NOT ATTACHED TO STORAGE

MINIMUM 6" DRAIN TO HOLDING POND OR OTHER DISPOSAL
SEE OPTIONAL OUTLET ABOVE



SIZE OF STORAGE, CUBIC FEET *

NO OF 1,000 LB ANIMAL UNITS**	STORAGE PERIOD			
	60 DAYS	90 DAYS	120 DAYS	150 DAYS
40	3,600	5,400	7,200	9,000
50	4,500	6,750	9,000	11,250
60	5,400	8,100	10,800	13,500
80	7,200	10,800	14,400	18,000
100	9,000	13,500	18,000	22,500

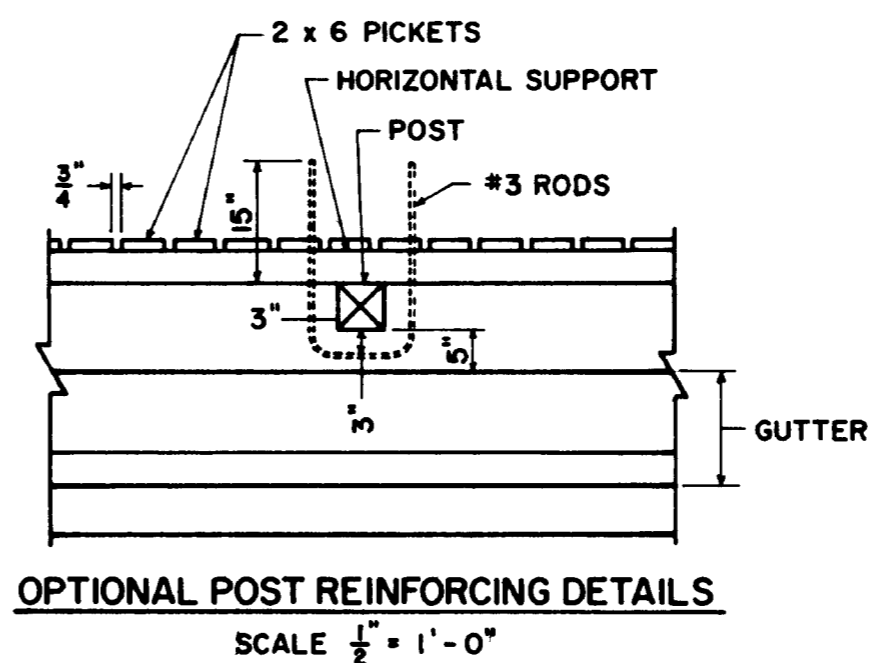
* COMPUTED AT 15 CU FT / DAY / 1,000 LB ANIMAL UNIT
** 1,000 LB ANIMAL UNIT = NO OF COWS x AVERAGE WEIGHT / 1,000

SIZE OF SETTLING BASIN, CUBIC FEET

LOT AREA, SQ FT SURFACED	NO OF 1,000 LB ANIMAL UNITS	VOLUME		
		LOT RUNOFF ONLY*	MILKING CENTER WASTES ONLY**	TOTAL
4,000	40***	92	107	199
	54	124	144	268
	80	184	213	397
8,000	80	184	213	397
	106	242	283	525
	160	368	426	794
12,000	120	276	320	596
	160	368	427	795
	240	552	640	1192

* RUNOFF VOLUME BASED ON
2,000 CU FT SOLIDS PER ACRE FOR 50 SQ FT PER 1,000 LB A U
1,330 CU FT SOLIDS PER ACRE FOR 75 SQ FT PER 1,000 LB A U
1,000 CU FT SOLIDS PER ACRE FOR 100 SQ FT PER 1,000 LB A U
** MILKING CENTER VOLUME 2 67 CU FT PER 1,000 LB A U
*** 3 DIFFERENT LOT AREAS PER ANIMAL - 100, 75, 50 SQ FT PER A U

NOTE:
ADAPT TO LOCAL CONDITIONS AND CONFORM WITH LEGAL REGULATIONS



COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
UNIVERSITY OF KENTUCKY
COLLEGE OF AGRICULTURE
DEPARTMENT OF AGRICULTURAL ENGINEERING
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

MANURE STORAGE AND SETTLING BASIN

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