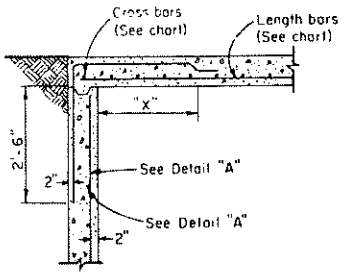
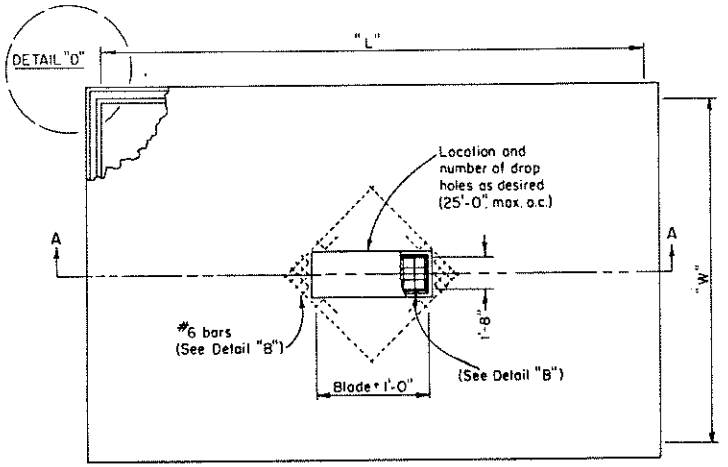
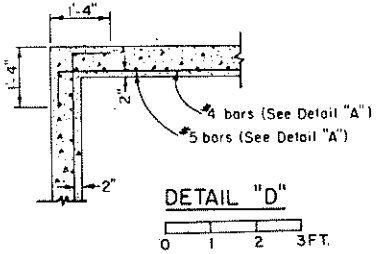
Tank Size				Length "L"	Dimensions			Tank Top Reinforcement				Cubic Yards (Volume of Concrete)			
								Lengthways		Crossways					
Width "W"	Length "L"	Depth "D"	Gallon Capacity		"T"	"X"	"M"	Bar Size	Spacing	Bar Size	Spacing	Base Slab	Walls	Tank Top	Total
12	As desired	10	900 x L	*Cow Days ÷ 50.0	5½"	1'-8"	1½"	#4	8"	#6	7"	0.30 x L	0.5 x L	0.24 x L	1.04 x L
15	As desired	10	1125 x L	Cow Days ÷ 62.5	8"	2'-2"	1½"	#4	6"	#6	6"	0.35 x L	0.5 x L	0.42 x L	1.27 x L
18	As desired	10	1350 x L	Cow Days ÷ 90.0	8"	2'-6"	1½"	#4	6"	#7	6"	0.40 x L	0.5 x L	0.50 x L	1.40 x L
20	As desired	10	1500 x L	Cow Days ÷ 83.3	9"	2'-10"	1½"	#4	6"	#7	5"	0.45 x L	0.5 x L	0.62 x L	1.57 x L
24	As desired	10	1800 x L	Cow Days ÷ 100.0	11"	3'-5"	2"	#5	8"	#8	5½"	0.52 x L	0.5 x L	0.90 x L	1.92 x L

*Cow Days = Days Storage x Herd Size
(Based on: 18 gals./cow/day)



DETAIL "C"
½" = 1'-0"





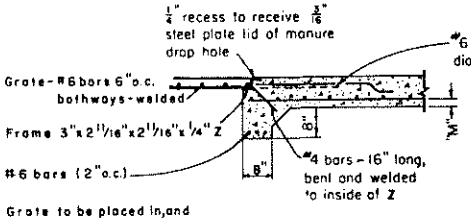
DETAIL "D"
0 1 2 3FT.

NOTES:

1) Design Live Load:
150 Lb./ft.², uniformly distributed

2) Concrete:
3,000 PSI at 28 days (f_c = 1350)

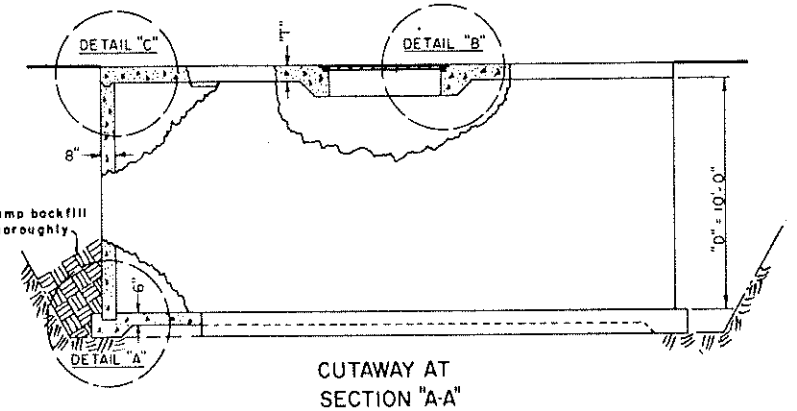
3) Steel:
f_s = 18,000 PSI



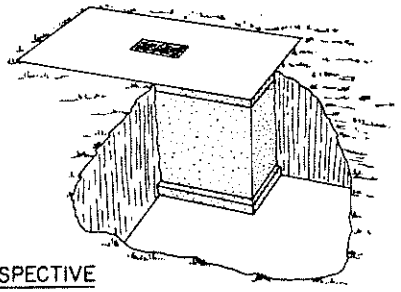
Grate to be placed in, and spot-welded to Z frame, after form lumber is removed from interior of tank.

DETAIL "B"
0 1 2 3 FT.

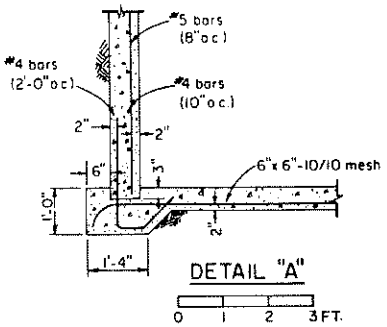
PLAN VIEW
0 2 4 6 FT.



CUTAWAY AT SECTION "A-A"
0 2 4 6FT.



PERSPECTIVE



DETAIL "A"
0 1 2 3FT.

Adapted from:
Univ. of Mass.
Ag. Eng. Dept.
Plan No. MC-4619
Cornell Univ.
Plan No. 820

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

LIQUID MANURE TANK

MASS., N.Y. '65	EX. 5987	SHEET 1 OF 1