

# MWPS-72688

## Swine Finishing House

Flushed or Scraped Gutter, 160 pigs. This plan is for a 26' x 60' (or 56') pole-frame building housing 160 pigs in 7 pens. Plan A shows a 40" gutter that is flushed from a siphon flush tank. Plan B shows an 8' scraped gutter.

### **CAUTION!**

Additional professional services will be required to tailor this plan to your situation, including but not limited to: assurance of compliance with codes and regulations; review of specifications for materials and equipment; supervision of site selection, bid letting and construction; and provision for utilities, waste management, roads or other access. **Furthermore, any deviation from the given specifications may result in structural failure, property damage, and personal injury including loss of life.**

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<b>MIDWEST PLAN SERVICE</b>
Cooperative Extension Work in Agriculture and Home Economics and Agricultural Experiment Stations of North Central Region - USDA Cooperating
Swine Finishing House Flushed or Scraped Gutter, 160 pigs
Title Page
MIDWEST PLAN NO. 72688

**Plan MWFS-72688  
Swine Finishing House  
Flushed or Scraped Gutters, 160 Pigs**

This plan is for a 28' x 60' (or 56') pole-frame building housing 160 pigs in 7 pens.  
Plan A shows a 40" gutter that is flushed with a siphon flush tank. Plan B shows an 8" scraped gutter.

**General Specifications:**

Ventilation: open front and ridge vents provide natural ventilation for this building. The open front can be closed down with doors, or rolled curtains.  
Concrete: Use 3500 psi concrete with 7% air entrainment—Use steel of at least 40,000 psi yield.  
Install steel and concrete carefully and accurately.  
Floor heat: Use heat lamps, radiant heater, heat pads, or floor heat. Heat in the floor may be electric or hot water, see MWFS-8, Swine Housing and Equipment Handbook.

**Insulation**

An "R" value measures the insulating quality of a material—larger R's mean better insulation. The R values shown on the plan are for the insulation only—plywood, air spaces, etc. also add some insulation.  
Full insulation, R = 43 or more in the walls and roof, is recommended for animal comfort.

The minimum insulation for this building is R = 5 under the roofing. This small amount will reduce comfort somewhat in summer, compared with an uninsulated metal roof.

**Building space and production cycles.**  
Although many variations are successful, the following are typical meat hog production systems. Plan building capacity for some extra animals to allow for larger litter size, or slow growth rate.  
Farrow during 3 weeks. Some stalls can be used twice.

**Either:**

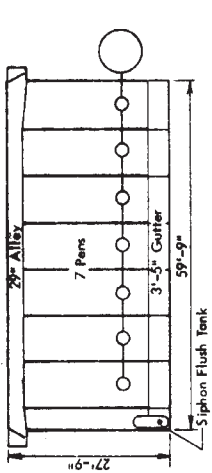
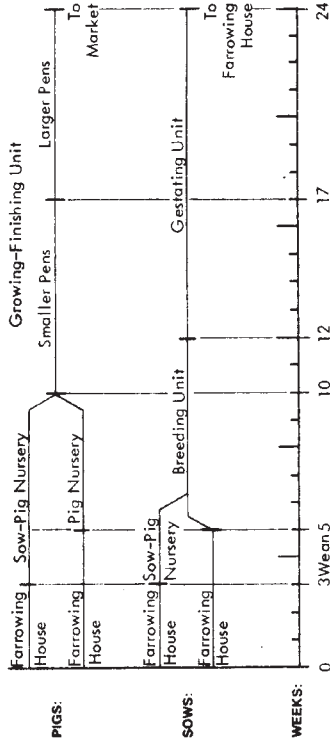
a) Move sows and litters to sow-pig nursing pens at 1-3 weeks, depending on how soon the farrowing stalls are needed for the next sows.  
Wean pigs at 3-6 weeks, putting 3-4 litters together.  
Return sows to breeding and gestation facilities.

**Or:**

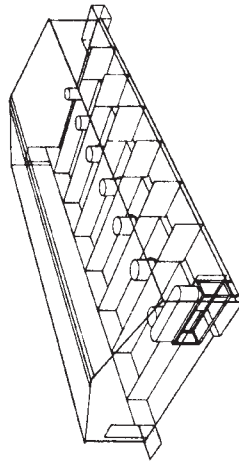
b) Wean pigs at 4-6 weeks (20-25 lb).  
Move pigs to nursery.  
Return sows to breeding and gestating facilities.  
Move pigs to finishing unit at 10 weeks (60 lb). (As farrowing intensifies to more than 6 times per year, pigs may be moved at about 8 weeks.) Put into smaller pens if you have two pen sizes. Put more pigs per pen if you have only one pen size.  
Move pigs to larger pens to reduce number of pigs per pen, at about 17 weeks (125 lb).

As they approach market weight, and if the finishing unit is crowded, larger hogs can be marketed early.  
Sows are often rebred during the first or second heat period after weaning, and farrow about 16 weeks later.

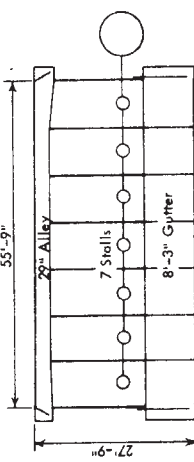
**TYPICAL HOUSING CYCLES**



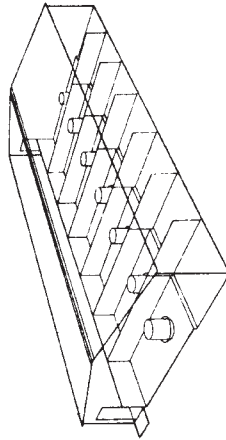
**FLOOR PLAN A**



**PLAN A—Flushed Gutter**



**FLOOR PLAN B**



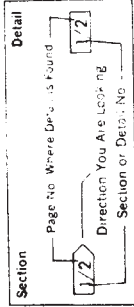
**PLAN B—Scraped Gutter**

**PREFERRED LUMBER SPECIFICATIONS**  
Roof Purlins and Wall Girts  
2x4 Construction Grade (Doug Fir or Southern Yellow Pine)  
2x6 No. 2 (Doug Fir or Southern Yellow Pine)  
Trusses and Headers  
No. 1 or 15001 machine rated (Doug Fir or Southern Yellow Pine)  
Posts and Spliceboards  
Pressure Preservative Treated (Southern Yellow Pine or Equivalent) creosote—10 pct. Penar—0.50 pct. ACA or CCA (Type A or B)—0.40 pct.

**Alternate Lumber Specifications, Spacing and Sizes.**  
2x4 Purlins (Construction Grade Hem-Fir)  
Max Spacing:  
Snow Zone 1: 28' o.c.  
Snow Zone 2: 24' o.c.  
Snow Zone 3: 18' o.c.

2x6 Girts (No. 2 Hem-Fir)  
Max Spacing: 20' o.c.  
Headers (No. 1 Hem-Fir)  
16' Door  
Snow Zone 1: 3—2x12  
Snow Zone 2: 4—2x12  
Snow Zone 3: 5—2x12  
24' Door  
All Zones: 5 1/2' x 24'

Trusses (No. 2 Hem-Fir)  
See Truss Page

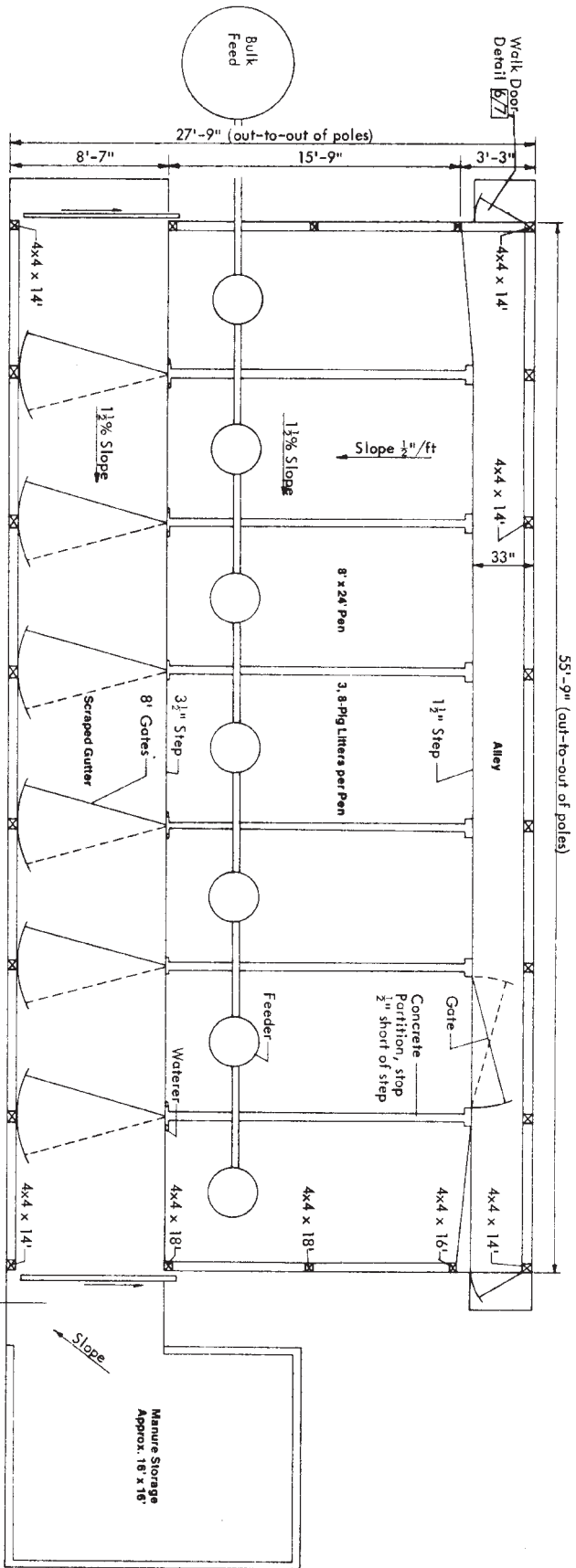


**Section & Detail Indicator**

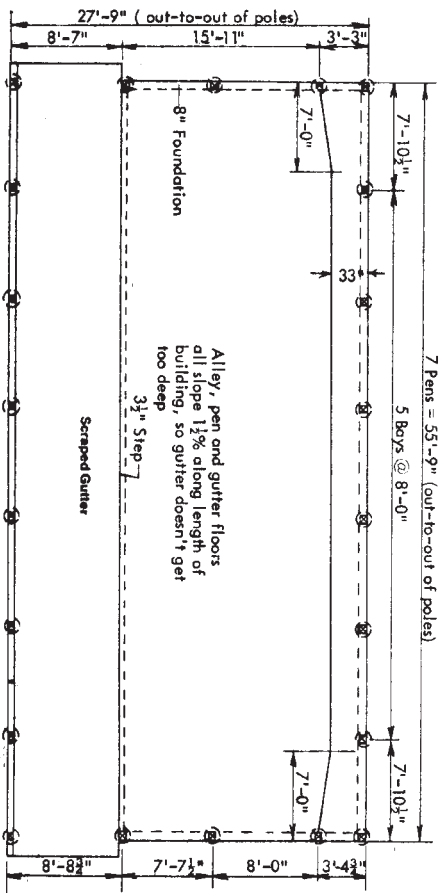
P. T. means lumber pressure preservative treated against insect and fungus attack.

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Cooperative Extension & Research in Agriculture & Home Economics in the 12 North Central Universities—USDA Cooperating	
<b>SWINE FINISHING HOUSE</b>	
Flushed or Scraped Gutter, 160 Pigs	
8 Pages plus	Plan No
28' Truss Sheet	mwpfs- 72688
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**PLAN B. FLOOR PLAN—1/4**  
Scraped Gutter



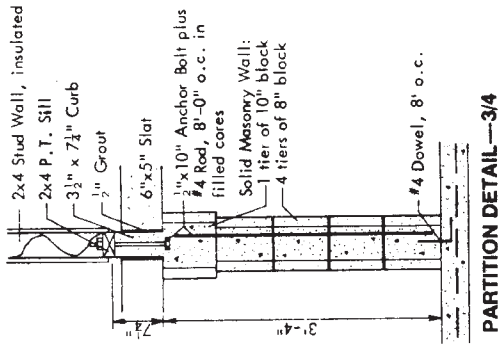
**PLAN B. FOUNDATION PLAN—2/4**

**MIDWEST PLAN SERVICE**

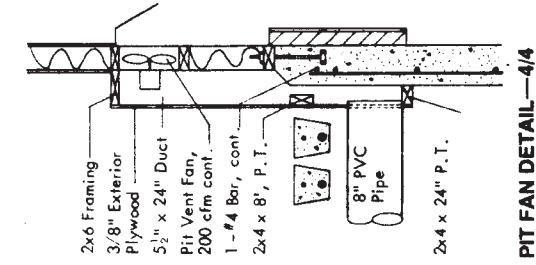
Cooperative Extension & Research in Agriculture  
& Home Economics in the 12 North Central  
Universities—USDA Cooperating

Specialized Planning Services  
Planned or Scraped Gutter, 160 Pigs

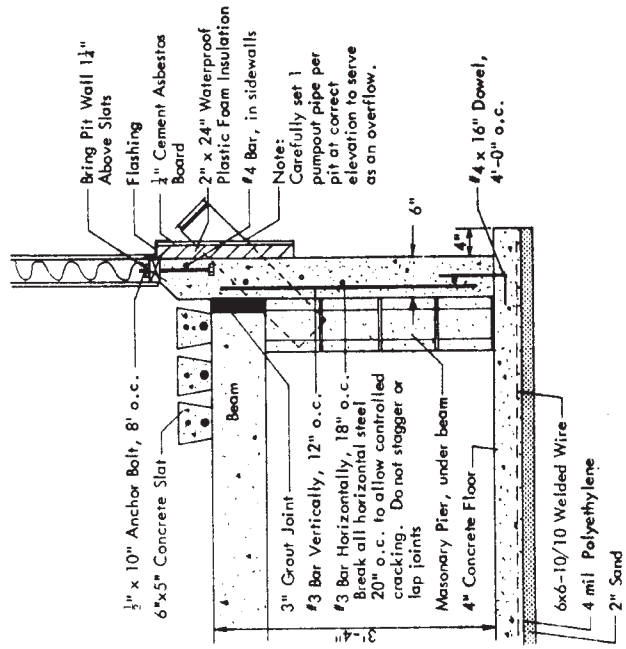
9 Pages plus 267 Truss Sheet	Part No. 72908	Page 4 of 18
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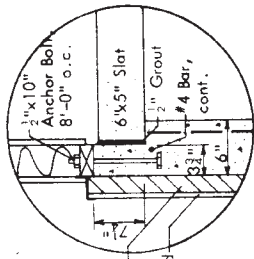
**PARTITION DETAIL—3/4**



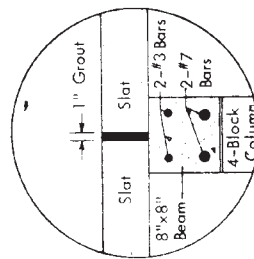
**PIT FAN DETAIL—4/4**



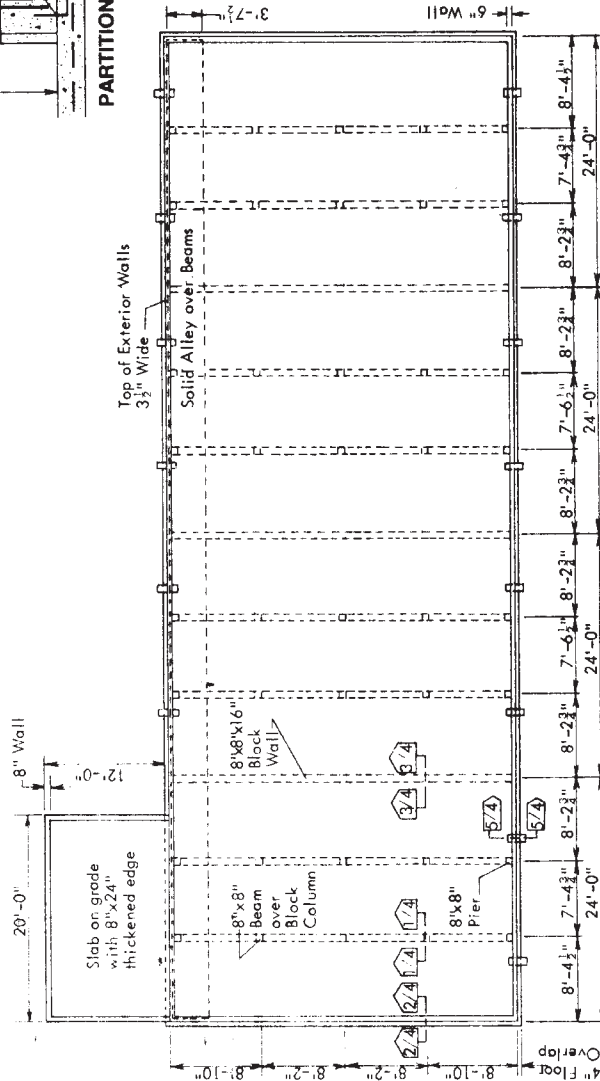
**PIT DETAIL—5/4**



**ENDWALL DETAIL—2/4**

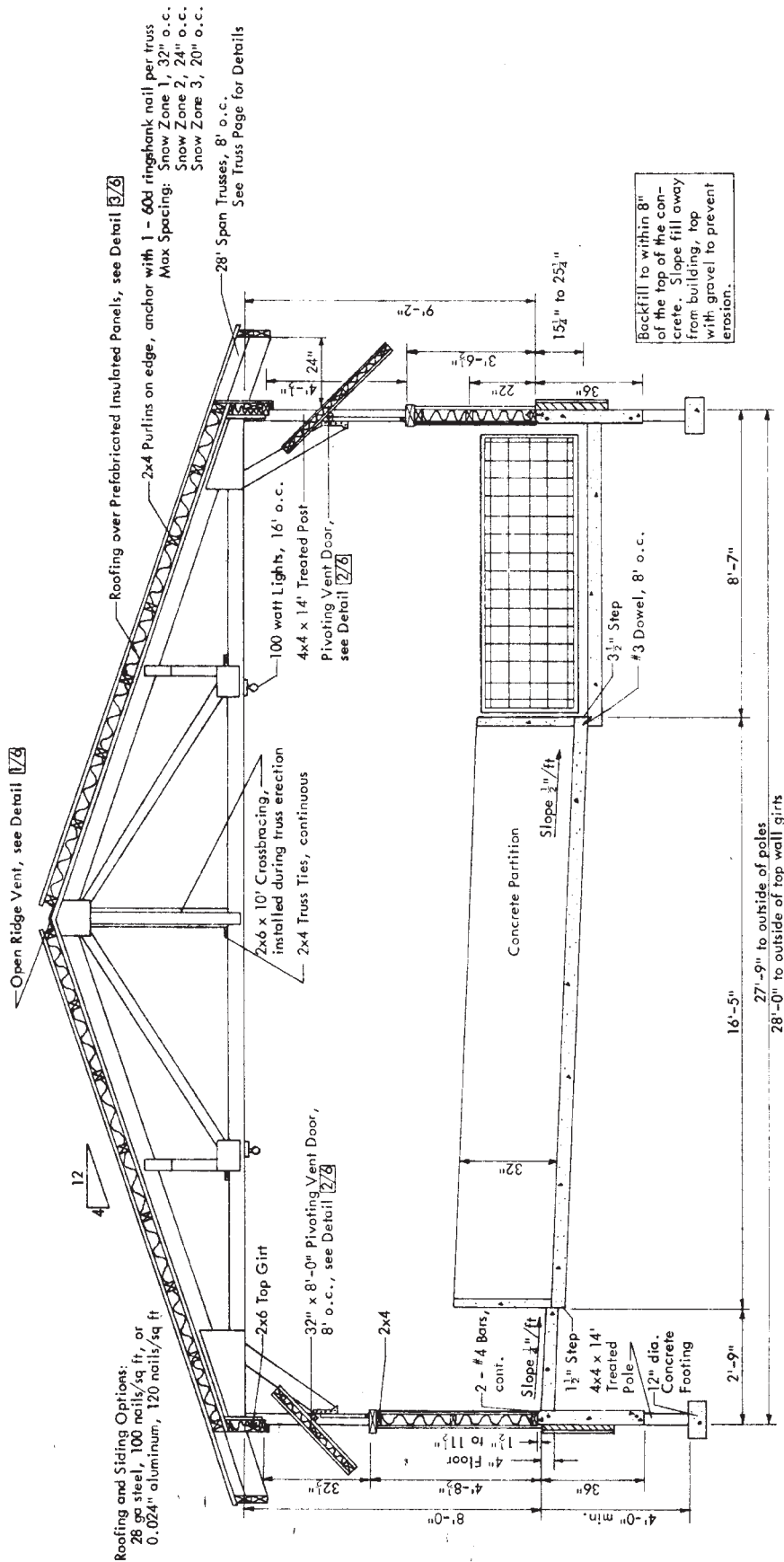


**BEAM SUPPORTED ON 4-BLOCK COLUMN—1/4**



**PLAN A. FOUNDATION PLAN—6/4**

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<b>FARROWING HOUSE</b> 4, 10 Sear Rooms, Side by Side	
8 Pages plus 32 Truss Sheets 4 of 16	Plan No. 77002 4 of 16
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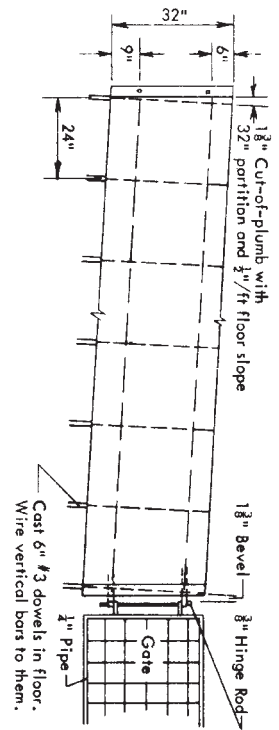
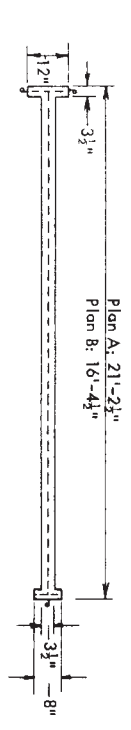
**PLAN B. CROSS SECTION—1/5**  
 Scraped Gutter

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<b>SWINE FINISHING HOUSE</b> Flushed or Scraped Gutter, 160 Pigs	
8 Pages plus	Plan No.
28' Truss Sheet	mwp: 72688
Page	5 of 10
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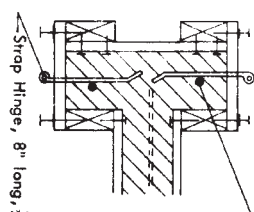




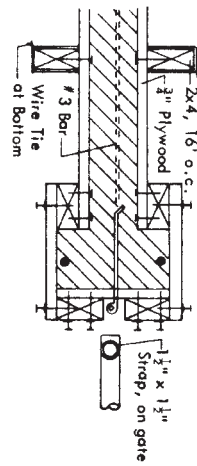


Bend, put small bolt in 1 hole or weld to #3 rods.

Vertical Rod and Dowel in Floor at Ends of Tee's



Strip Hinge, 8" long, 1/2" hole. If welded wire mesh is available in flat sheets (not rolls), it can be used instead of #3 bars.



**CONCRETE PARTITION DETAIL—1/8**

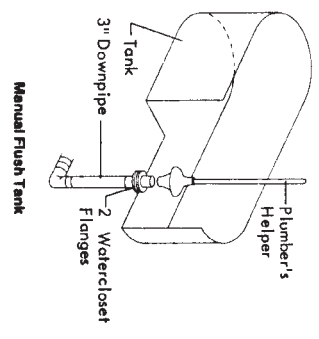
**MIDWEST PLAN SERVICE**

Cooperative Extension & Research in Agriculture & Home Economics in the 12 North Central Universities—USDA Cooperative

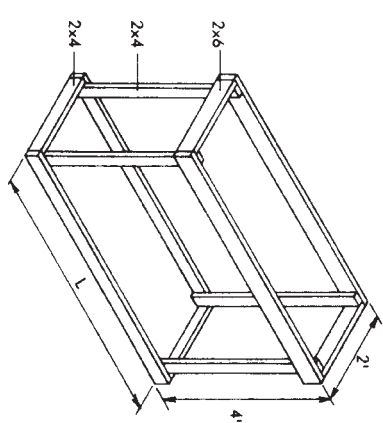
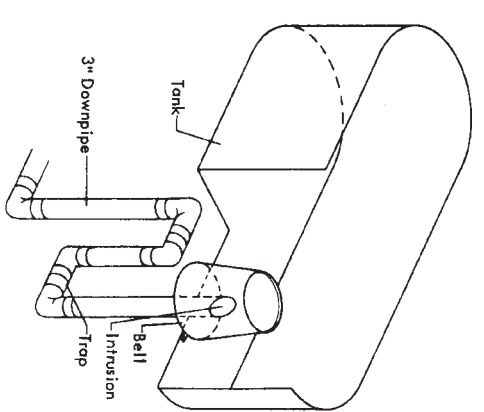
**CONCRETE PARTITIONING HOUSING**  
Flushed or designed gutter, 140 pages

8' 8" Truss Spine	Planets, 5'	Anges, 2'
28' Truss Street	Wagner, 72000	9 of 10

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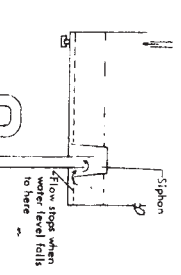
Manual Flush Tank



Siphon Tank Support Frame

L = Tank length - 1'. If L is greater than 6', install 2x4 post near center of span. Provide cross-bracing if frame not attached to wall. Cover top with 1" plank.

**SIPHON FLUSH TANK—2/8**  
See MWPS AED-17



Flush Frequency—minimum flushes per day

	Under slabs	Open gutter
Farrow	2	—
Nursery	4	—
Finish	5	12
Quailhen	4	8

More flushes per day tend to decrease odors.