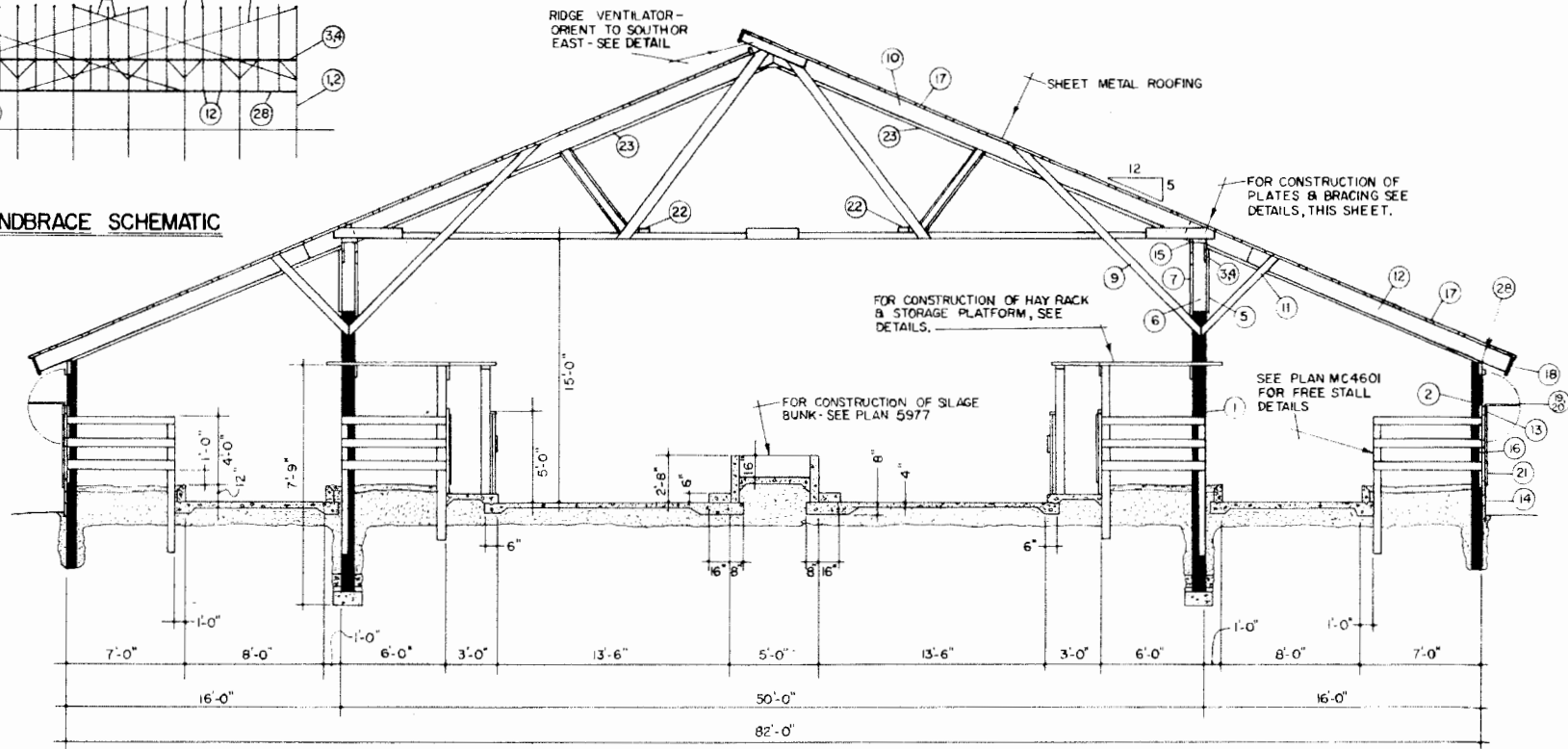


WINDBRACE SCHEMATIC

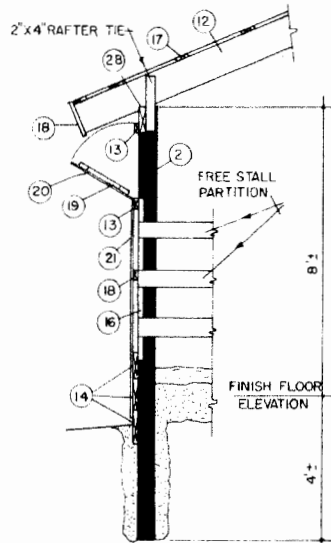


CROSS SECTION

SCALE 3/16" = 1'-0"

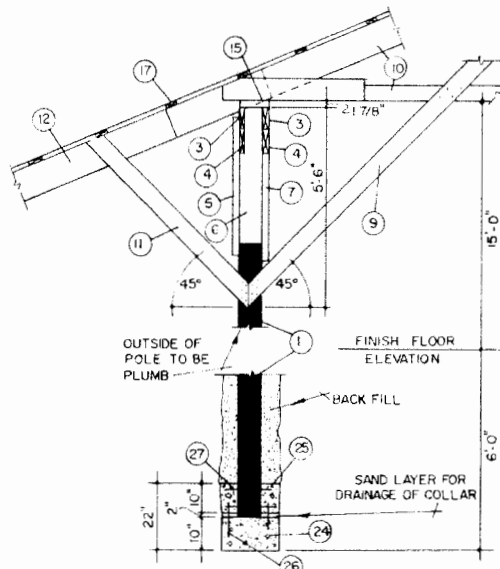
NOTES & PIECE LIST

- 1 7" TOP DIAMETER X 20' PRESSURE TREATED POLE, 12' O.C.
- 2 6" TOP DIAMETER X 12' PRESSURE TREATED POLE, 12' O.C.
- 3 2" X 6" X 16" (PLATE) LET OUTER PLATES INTO POLE FACE JOIN
- 4 2" X 10" X 16" (PLATE) PLATES AT TRUSS TIE # 8
- 5 2" X 6" X 5'-7" KNEE BRACE MEMBER
- 6 2" X 8" X 5'-5" KNEE BRACE MEMBER NOTCHED INTO POLE & CUT TO FIT BETWEEN PLATES
- 7 2" X 6" X 3'-0" SCAB UNDER INNER PLATES
- 8 2" X 6" TRUSS TIE 4'-0" O.C. BETWEEN POLES
- 9 2" X 6" X 15'-6" WIND BRACE 12' O.C.
- 10 50' SPAN TRUSS 4'-0" O.C., 40 LB/FT²
- 11 2" X 6" X 6'-6" WIND BRACE 12' O.C.
- 12 2" X 10" X 20' RAFTER 4'-0" O.C. CONSTRUCTION GRADE DOUGLAS FIR
- 13 2" X 6" X 12" WALL GIRTS 2' O.C.
- 14 2" X 12" X 12" PRESSURE TREATED PLANK
- 15 2" X 4" X 6" TRUSS SEAT
- 16 2" X 6" X 4'-6" STALL NAILER AT EACH STALL.
- 17 2" X 4" X 12" PURLIN, 2' O.C.
- 18 1" X 12" FASCIA
- 19 1" X 4" DROP DOWN WINDOW FRAMING
- 20 2" PLASTIC PANEL WINDOW
- 21 PLYWOOD (EXTERIOR) OR VERTICAL BOARD SIDING
- 22 LONGITUDINAL WINDBRACE
- 23 2" X 6" WINDBRACE NAILED UNDER TRUSSES & RAFTERS START UNDER RIDGE AT END WALLS.
- 24 20" DIAMETER X 10" THICK FOOTING UNDER EACH INTERNAL POLE
- 25 20" DIAMETER X 10" THICK CONCRETE COLLAR
- 26 #3 (3/8") X 1'-3" REINFORCING ROD 4 PER FOOTING
- 27 60d NAILS (8 PER POLE) DRIVE 2 1/2" INTO POLE BEFORE SETTING.
- 28 2" X 12" X 12" PLATE LET INTO POLE



DETAIL AT OUTER POLES

SCALE 3/8" = 1'-0"



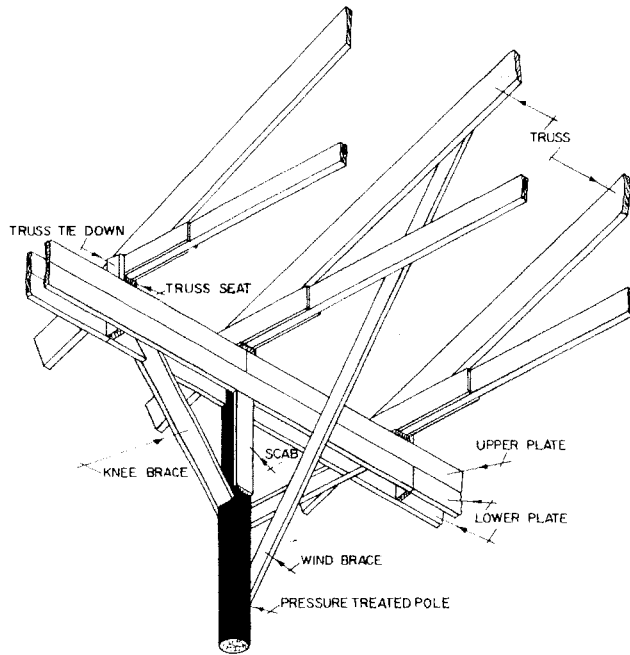
DETAILS AT INNER POLES

SCALE 3/8" = 1'-0"

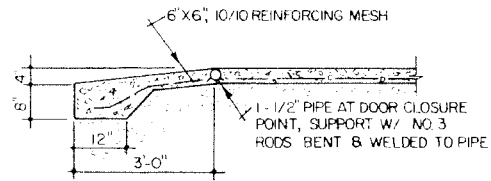


**LOOSE HOUSING SYSTEM
COVERED FREE-STALL**

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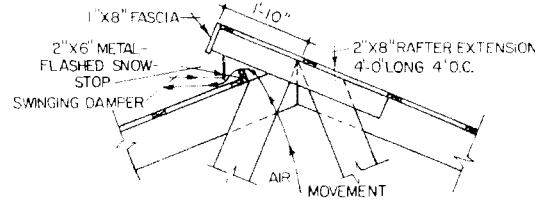


STRUCTURAL FRAMING PICTORIAL



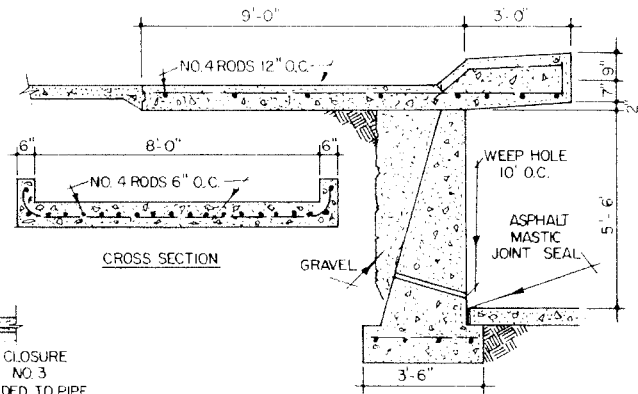
ENTRY RAMP

SCALE 1/2"=1'-0"



CONTINUOUS RIDGE VENTILATOR

SCALE 1/2"=1'-0"

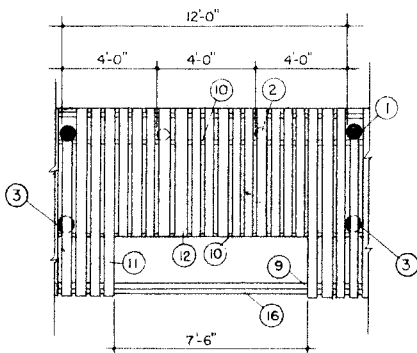


MANURE LIP

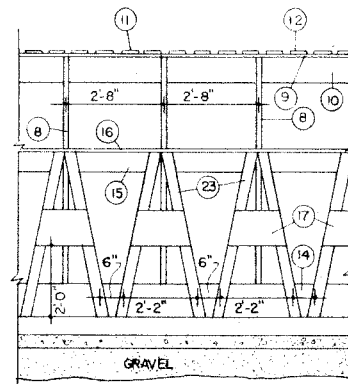
SCALE 3/8"=1'-0"

PIECE LIST & NOTES

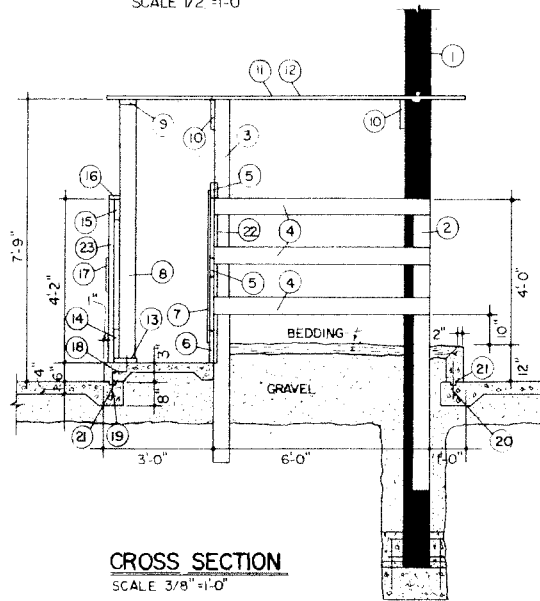
1. 7" TOP DIAMETER X 20' PRESSURE TREATED POLE, 12' O.C.
2. 5" TOP DIAMETER X 8' PRESSURE TREATED POLE, 4' O.C.
3. 5" TOP DIAMETER X 10' PRESSURE TREATED POLE, 12' O.C.
4. 2" X 6" X 6'-0" STALL PARTITION BOARD.
5. 2" X 12" X 12'-0" STALL PARTITION BOARD, 2' O.C.
6. 2" X 12" X 12'-0"
7. 1/2" EXT. PLYWOOD
8. 2" X 6" X 7'-0" RACK & PLATFORM SUPPORT, 2'-8" O.C.
9. 2" X 6" X 16' PLATFORM SUPPORT PLATE
10. 2" X 12" X 12'
11. 2" X 6" X 12' PLATFORM DECKING
12. 2" X 6" X 7'
13. 2" X 8" X 16" RACK & PLATFORM SILL
14. 2" X 10" X 16" HAY RACK MEMBER
15. 2" X 6" X 16" " " "
16. 2" X 4" X 16" " " "
17. 1" X 12" X 1'-9" " " "
18. 1/2" Ø ANCHOR BOLTS, 4' O.C.
19. #3 (3/8" Ø) X 10' RE-RODS, 12' O.C.
20. " " " X 12' RE-RODS, 12' O.C.
21. 1" X 2" KEY FORMED WITH OILED 1" X 2"
22. 2" X 6" X 5'-0" INTERMEDIATE STALL SUPPORT
23. 2" X 4" X 4'-8" HAY RACK MEMBER



PARTIAL PLAN
SCALE 1/4"=1'-0"



FRONT ELEVATION
SCALE 3/8"=1'-0"



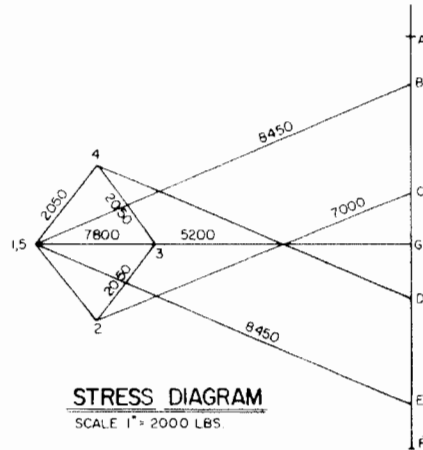
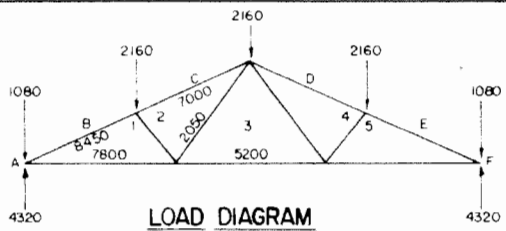
CROSS SECTION
SCALE 3/8"=1'-0"

HAY RACK DETAILS



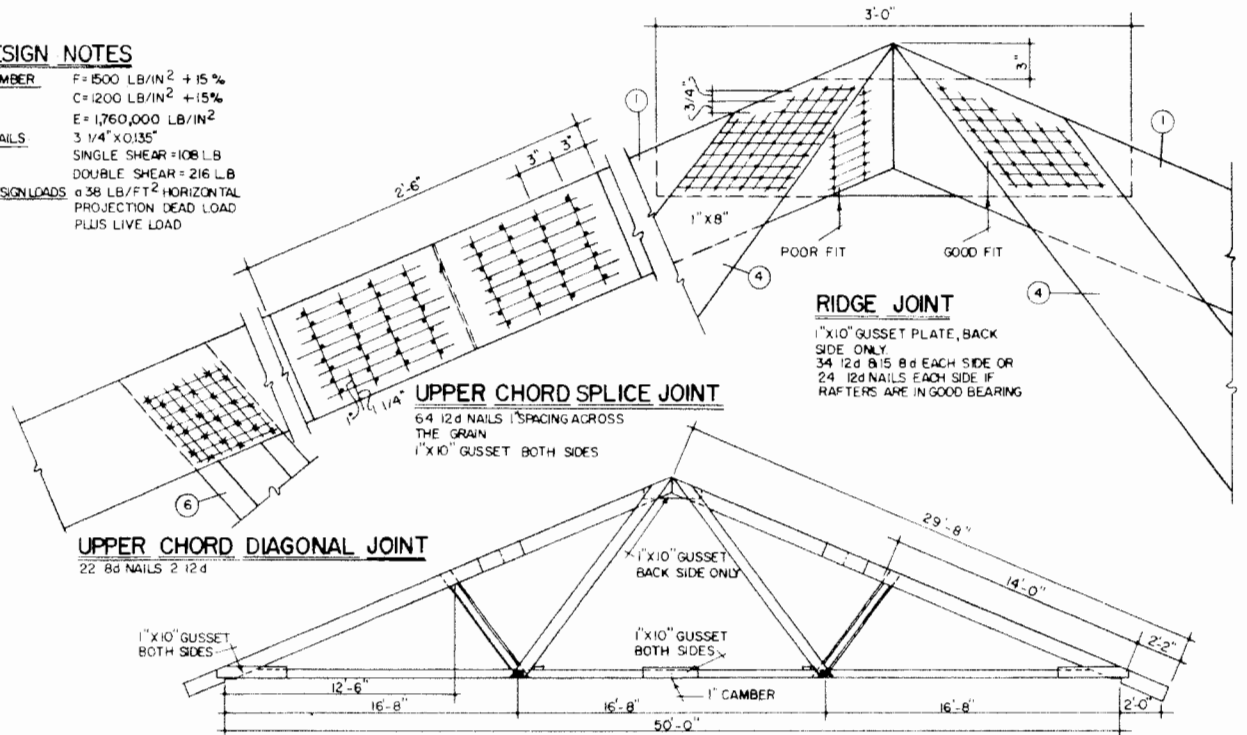
LOOSE HOUSING SYSTEM COVERED FREE-STALL

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DESIGN NOTES

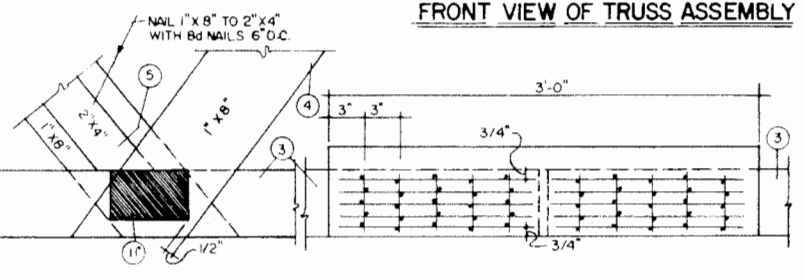
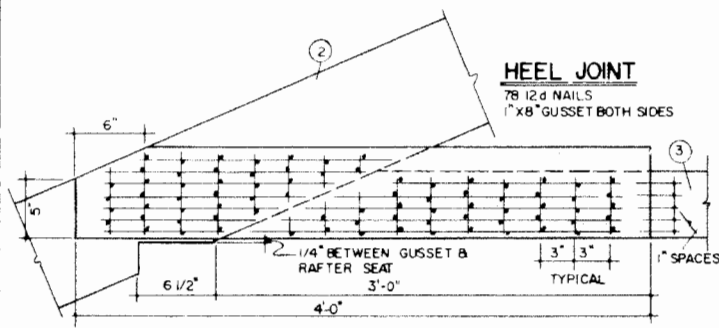
1. LUMBER F = 1500 LB/IN² + 15%
C = 1200 LB/IN² + 15%
E = 1,760,000 LB/IN²
2. NAILS 3 1/4" x 0.135"
SINGLE SHEAR = 108 LB
DOUBLE SHEAR = 216 LB
α 38 LB/FT² HORIZONTAL PROJECTION DEAD LOAD PLUS LIVE LOAD
3. DESIGN LOADS



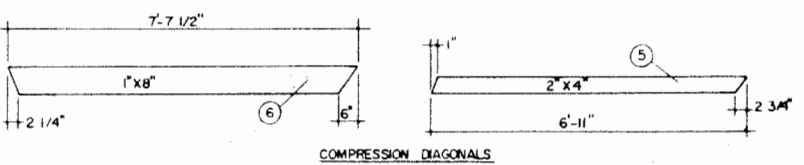
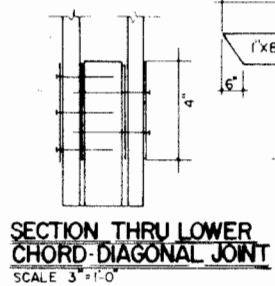
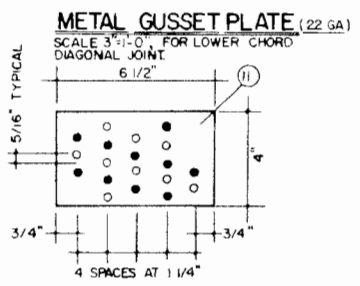
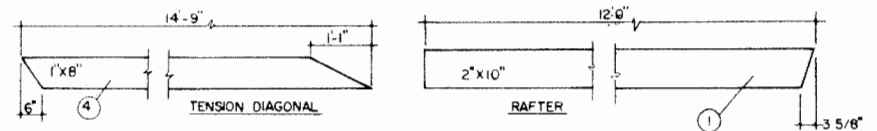
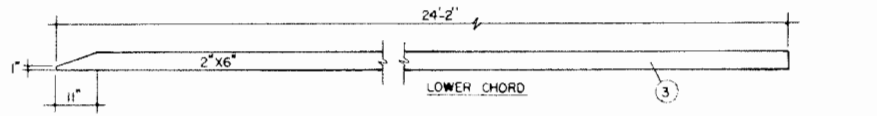
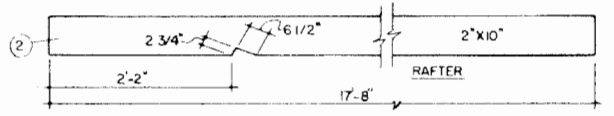
RIDGE JOINT
1" x 10" GUSSET PLATE, BACK SIDE ONLY
34 12d 8/15 8d EACH SIDE OR
24 12d NAILS EACH SIDE IF
RAFTERS ARE IN GOOD BEARING

UPPER CHORD SPLICE JOINT
6 4 12d NAILS 1" SPACING ACROSS THE GRAIN
1" x 10" GUSSET BOTH SIDES

UPPER CHORD DIAGONAL JOINT
22 8d NAILS 2 12d



- NOTES & SPECIFICATIONS**
- LUMBER: CONSTRUCTION GRADE DOUGLAS FIR OR EQUIVALENT
 - TRUSSES SPACED 4'-0" ON CENTERS
 - CAMBER: 1" AT CENTER SPLICE
 - NAILS: USE HARDENED, HELICALLY THREADED SCREWTITE NAILS OR EQUIVALENT. DRIVE ALL NAILS FROM THE FRONT EXCEPT THOSE SHOWN AS W.
 - MAKE AND USE A NAILING TEMPLATE FOR LOCATING ALL NAILS.
 - MINIMUM END GRAIN NAIL SPACING, ALL MEMBERS 2 1/2"-3"
 - MINIMUM EDGE GRAIN NAIL SPACING, ALL MEMBERS 3/4"-1"



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LOOSE HOUSING SYSTEM COVERED FREE-STALL

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Disclaimer

This site makes available conceptual plans that can be helpful in developing building layouts and selecting equipment for various agricultural applications. These plans do not necessarily represent the most current technology or construction codes. They are not construction plans and do not replace the need for competent design assistance in developing safe, legal and well-functioning agricultural building system. The LSU Agriculture Center, the Mid-West Plan Service, the United States Department of Agriculture and none of the cooperating land-grant universities warranty these plans.