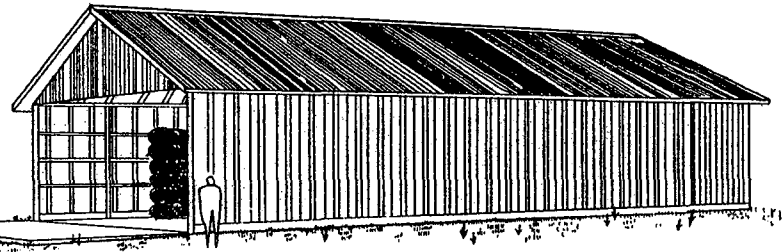


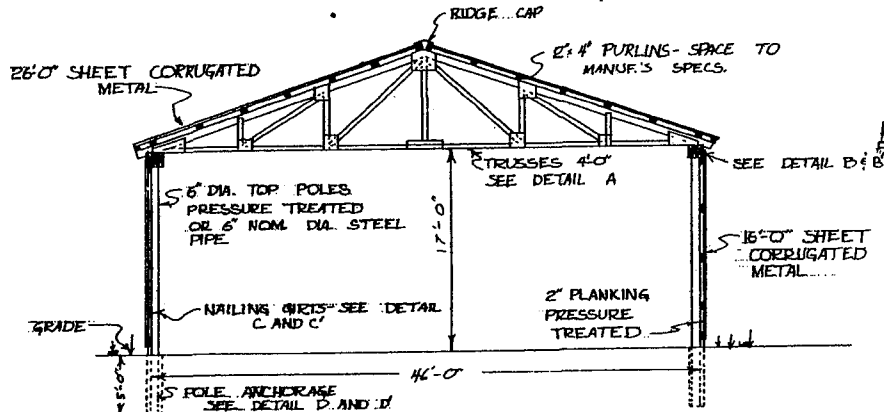
BARN FOR AUTOMATIC BALEWAGONS

The building is 46' x 96' with 17' eave clearance. It will accommodate 52 - 160 bale stacks or a total of 8,320 bales. At 80 lbs. per bale, the building capacity is 330 tons. The building may be shortened or lengthened in 12 ft. units. At 120 ft. length, capacity is 435 tons.

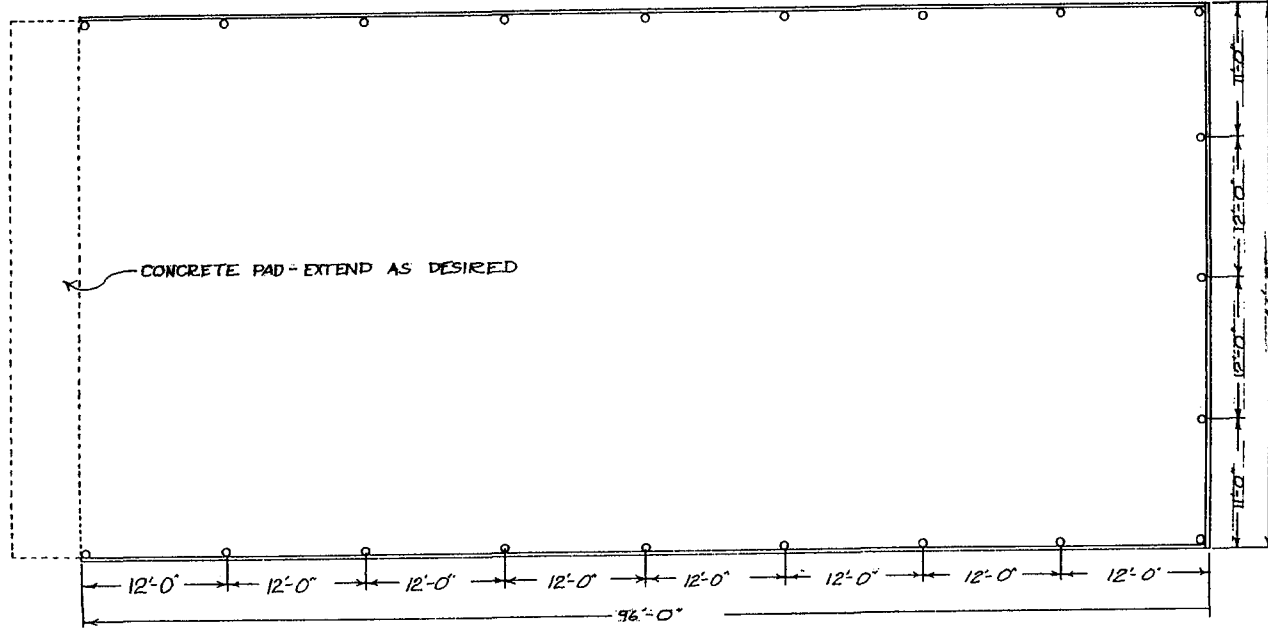
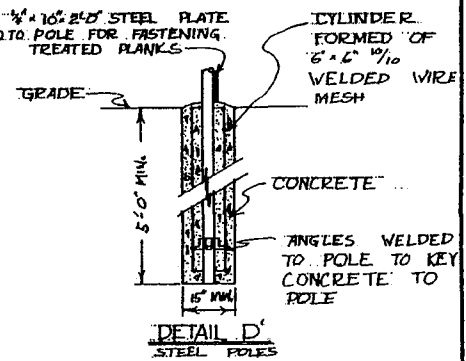
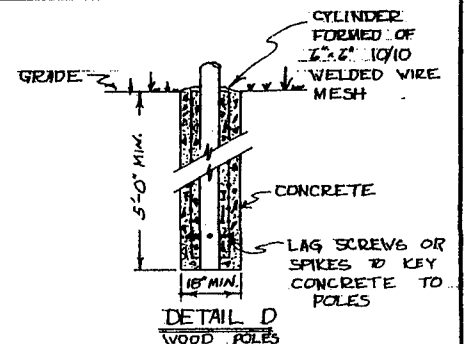
Options are shown for an open or closed building and for treated wood or steel poles. Details are given for a 46 ft. span, nailed wood truss, to be spaced 4 ft. o. c.



PERSPECTIVE



END SECTION
SCALE: 1/8" = 1'-0"

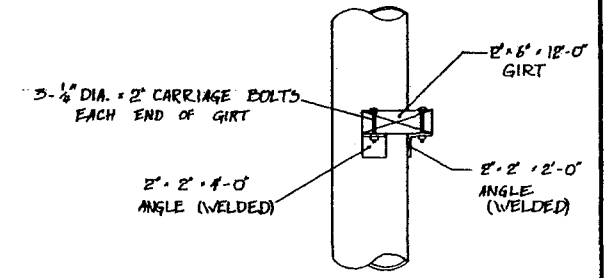
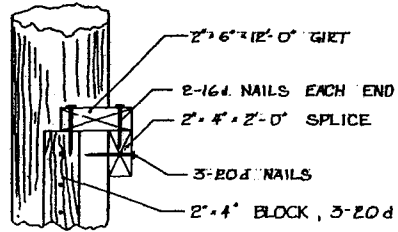


PLAN VIEW
SCALE: 1/8" = 1'-0"



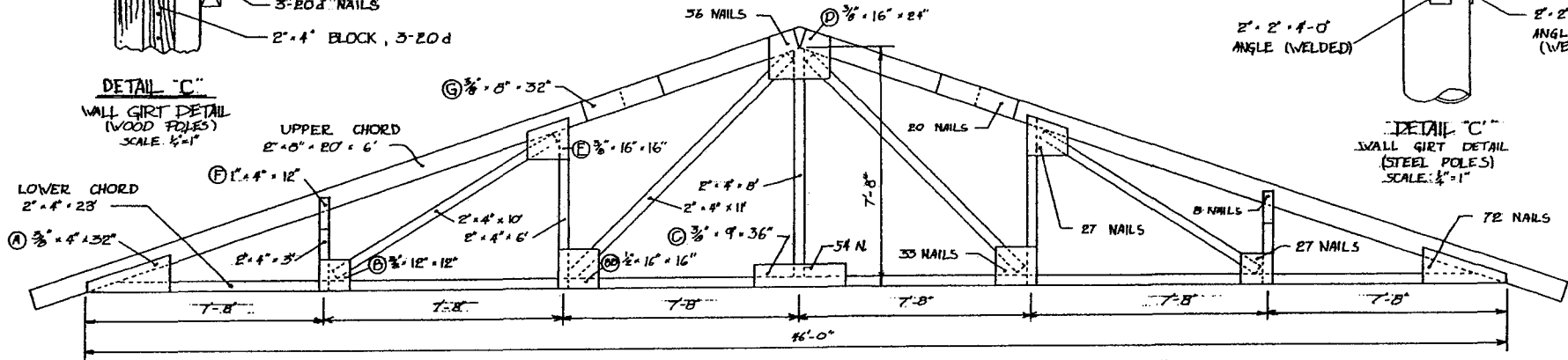
BARN FOR AUTOMATIC BALE WAGONS

ENGINEER OKLA.	SCALE AS SHOWN	
DRAWN BY	SHEET 1 OF 3	
TRACED BY RWD	DATE	NO. 20-13



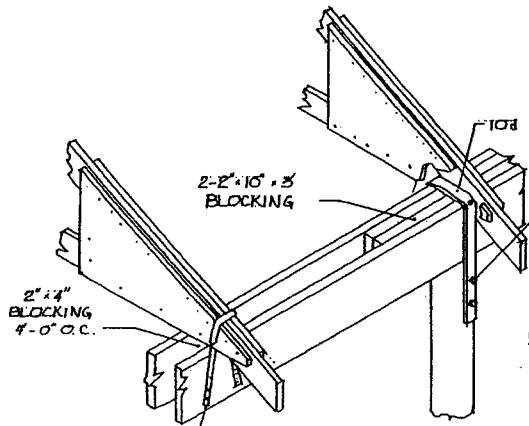
DETAIL "C"
WALL GIRT DETAIL
(WOOD POLES)
SCALE: $\frac{1}{2}''=1'$

DETAIL "C"
WALL GIRT DETAIL
(STEEL POLES)
SCALE: $\frac{1}{2}''=1'$

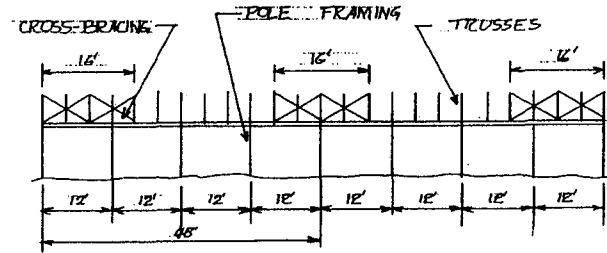
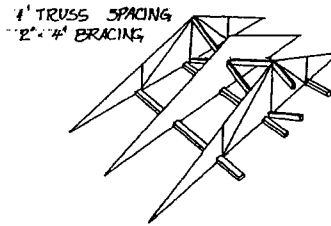


TRUSS DETAIL "A"
SCALE: $\frac{3}{8}''=1'$

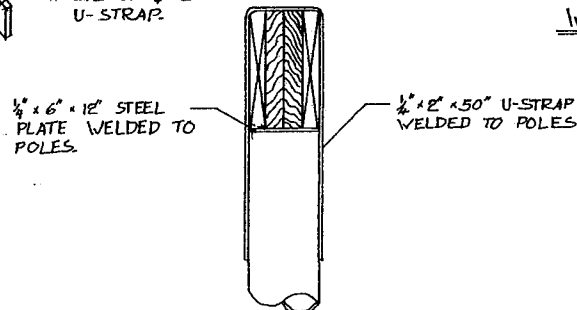
NOTE:
THE NUMBER OF NAILS SPECIFIED FOR EACH JOINT SHOULD BE DIVIDED EVENLY BETWEEN THE TWO SIDES OF THE JOINT AND THE MEMBERS IN THE JOINT.



DETAIL "B"
(WOOD POLES)



WIND BRACING



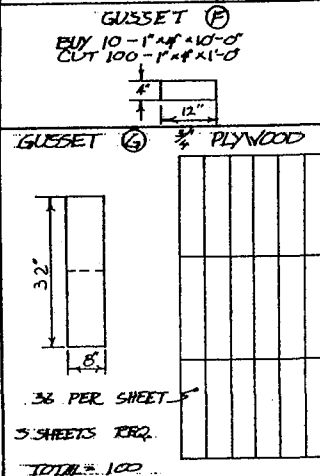
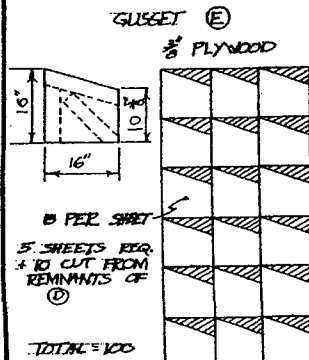
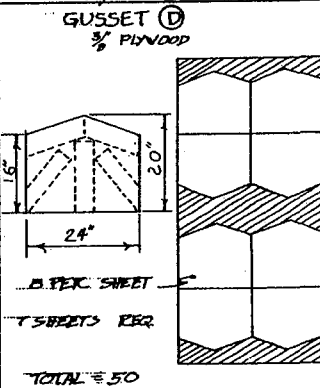
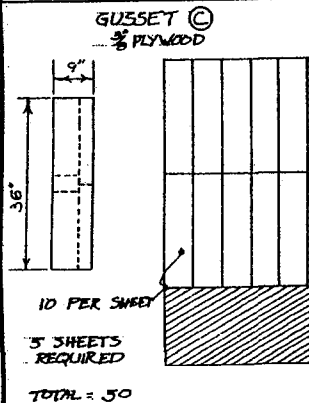
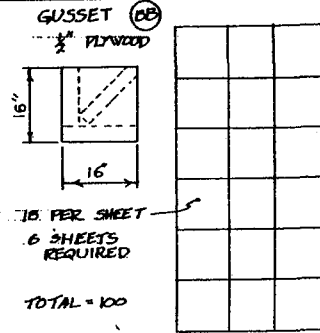
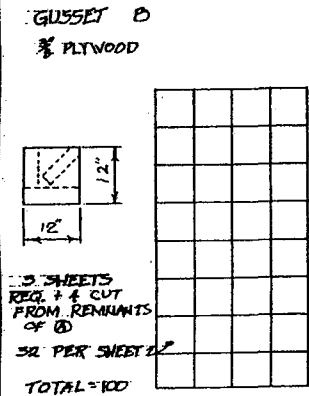
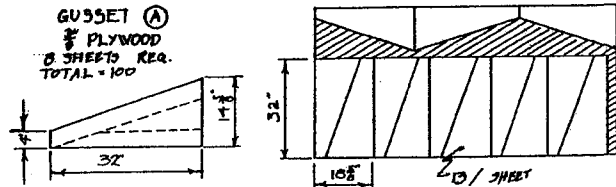
DETAIL "B" SCALE: $\frac{1}{4}''=1'$
(STEEL POLES)



BARN FOR AUTOMATIC BALE WAGONS

ENGINEER OKLA.	SCALE AS SHOWN
DRAWN BY	SHEET 2 OF 3
TRACED BY RWD	DATE SEPT 74 NO. 20-13

GUSSET CUTTING DIAGRAM



BILL OF MATERIALS - BASIC BUILDING (46' x 96') - NO SIDES

POLES

Wood - 6" min. dia. top, 10" min. dia. butt. Select poles that are straight.

18 - 22'-0" length (396 lin. ft.)

Steel - 6" nominal dia. steel pipe 6.625" outside dia., .280" wall thickness. Select pipe that is free of deep rust pits and apply rust-proof paint after erection. Holes must not be drilled through the poles.

18 - 22'-0" length (396 lin. ft.)

GIRDERS

BUY	CUT	
40- 2"x10"x12'-0"	32- 2"x10"x12'-0"	(800 bd. ft.)
	28- 2"x10"x 3'-0"	
	8- 2"x10"x 1'-6"	

BUY	CUT	
Blocking - 2- 2"x4"x12'-0"	32- 2"x4"x9"	(16 bd. ft.)

Nails - 15 lbs. 10d common nails

PURLINS - Use lap nailing with 2- 10d ring-shank hardened nails per member.

128- 2"x4"x14'-0" (or number required by roofing manufacturer's specified spacing.) (1,195 bd. ft.)

Nails - 15 lbs. 10d ring-shank hardened nails

ROOFING - 98 sheets 26'-0" corrugated metal roofing or 98 sheets 14'-0" plus 98 sheets 12'-0" (51 squares)

Siding for gable ends
 24 sheets 9'-0" or 12 sheets 18'-0" corrugated metal siding (432 sq. ft. - 5 squares)

Ridge cap - 100 lin. ft.

Nails - 280 lbs. lead-head, screw-shank, galvanized roofing nails

TRUSSES - Use construction or no. 2 yellow pine or better.

	BUY	CUT	
Upper Chord	50- 2"x8"x20'-0"	50- 2"x8"x20'-0"	(1,334 bd. ft.)
Upper Chord	25- 2"x8"x12'-0"	50- 2"x8"x 6'-0"	(400 bd. ft.)
Lower Chord	50- 2"x4"x24'-0"	50- 2"x4"x23'-0"	(800 bd. ft.)
Web	13- 2"x4"x12'-0"	50- 2"x4"x 3'-0"	(104 bd. ft.)
Web	50- 2"x4"x10'-0"	50- 2"x4"x10'-0"	(334 bd. ft.)
Web	25- 2"x4"x12'-0"	50- 2"x4"x 6'-0"	(200 bd. ft.)
Web	50- 2"x4"x12'-0"	50- 2"x4"x11'-0"	(400 bd. ft.)
Kingpost	13- 2"x4"x16'-0"	25- 2"x4"x 8'-0"	(132 bd. ft.)

Gussets - C-C Exterior Grade Plywood

28 sheets 3/8"
 6 sheets - 1/2"
 3 sheets - 3/4"
 10- 1"x4"x10'-0"

SEE CUTTING DIAGRAMS

Nails - 100 lbs. 10d helically-threaded hardened nails

Wind Bracing
 24- 2"x4"x12'-0" bottom chord (192 bd. ft.)
 12- 2"x4"x12'-0" X-bracing (96 bd. ft.)

CONCRETE - 5 cu. yds. - to set poles.

MISCELLANEOUS

18- 1/4"x2"x50" steel #-straps
 50- 1"x24 gauge x 30" metal U-straps (plumber's strap)
 2 lb. 6d common nails
 400 sq. ft. - 6"x6" 10/10 welded wire mesh cut
 18- 4'-6"x5'-0" pieces to form reinforcing cylinders.

Wood Poles Only

72- 5/8"x4" lag screws for U-straps
 72- 1/2"x5" lag screws or spikes for pole anchorage

Steel Poles Only

18- 1/4"x6"x12" steel plates for girder support
 72- 3"x3"x4" angles for pole anchorage

ADDITIONAL MATERIALS FOR SIDES AND ONE END

POLES

3- 6" dia. top pressure treated wood or
 3- 6" nom. dia. steel pipe poles - 22'-0"

Concrete - 1 cu. yd. required to set poles.

Reinforcing mesh and uplift keys not required.

TREATED PLANKS

40- 2"x6"x12'-0" or
 20- 2"x12"x12'-0" (480 bd. ft.)

WALL GIRTS

60- 2"x6"x12'-0" (720 bd. ft.)

SIDING

Side Walls
 96 sheets 16'-0" corrugated metal siding (3,072 sq. ft. - 31 squares)

End Wall
 23 sheets 17'-0" corrugated metal siding (782 sq. ft. - 8 squares)

Corner Flashing - 40 lin. ft.

Nails - 200 lbs. lead-head, screw-shank, galvanized roofing nails

WOOD POLES ONLY

Splice & Gire Fastening

BUY	CUT
11- 2"x4"x12'-0"	51- 2"x4"x2'-0"
(88 bd. ft.)	18- 2"x4"x1'-6"

Nails - 4 lb. 12d ring-shank hardened
 2 lb. 16d ring-shank hardened

Treated Plank Fastening

Nails - 3 lb. 16d ring-shank hardened

STEEL POLES ONLY

Splice & Gire Fastening

BUY	CUT
2"x2"x155 lin. ft. angle iron	51- 2"x2"x2'-0"
	18- 2"x2"x1'-6"
	76- 2"x2"x4"

Bolts - 360- 1/4" dia. x 2" carriage bolts

Treated Plank Fastening - Plates Welded to Poles

BUY	CUT
310 sq. ft. of 1/4" steel plates	17- 1/4"x10"x2'-0"
	6- 1/4"x10"x1'-6"

Bolts - 52- 3/8" dia. x 2 1/2" machine bolts with large washers.



BARN FOR AUTOMATIC BALE WAGON

ENGINEER OKLA.	SCALE AS SHOWN
DRAWN BY	SHEET 3 OF 3
TRACED BY RWD	DATE NO. 20-13

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.