

MWPS-72057

40' Pole Utility Building

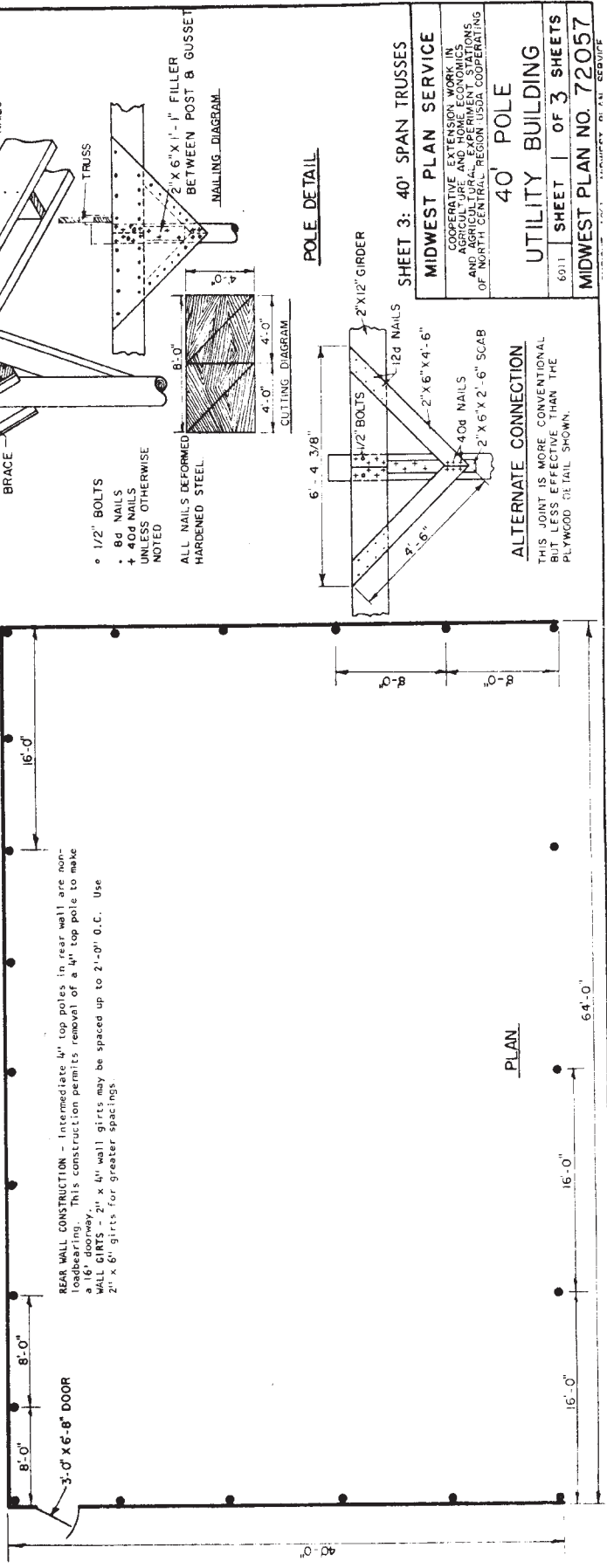
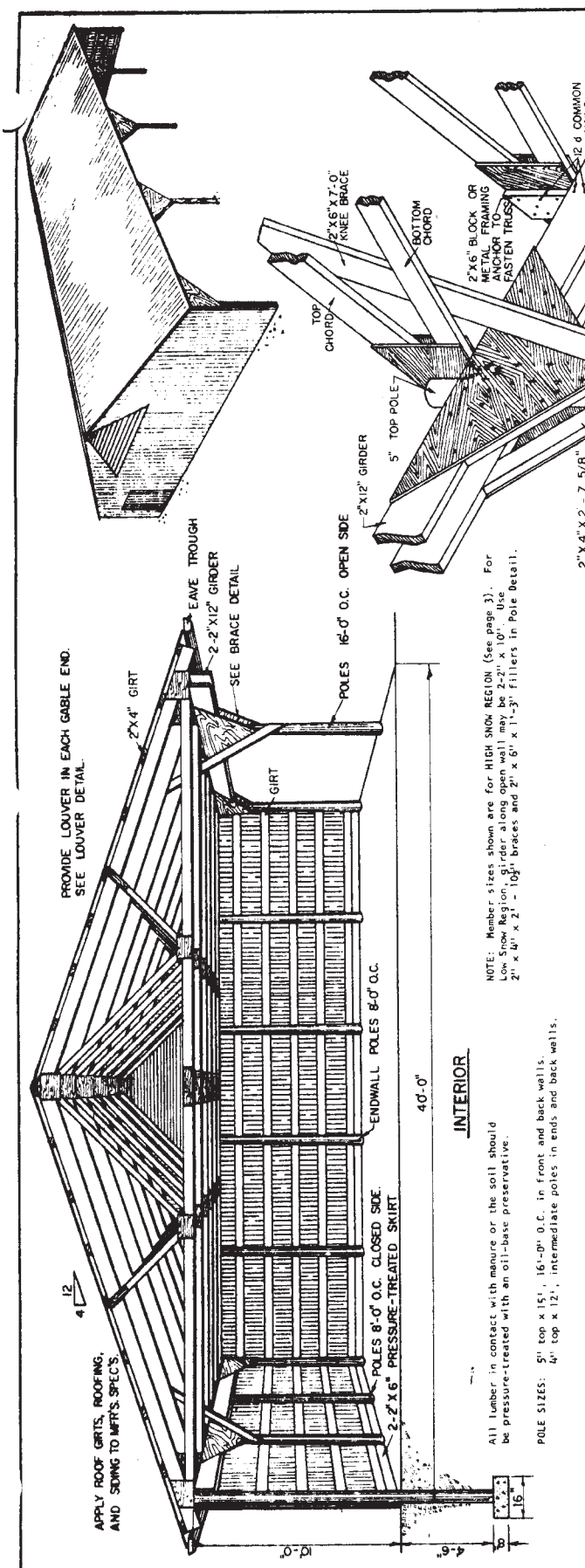
CAUTION!

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.**

WARRANTY DISCLAIMER

This plan provides conceptual information only. **Neither midwest plan service nor any of the cooperating land-grant universities, or their respective agents or employees, have made, and do not hereby make, any representation, warranty or covenant with respect to the specifications in this plan.** 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.

MIDWEST PLAN SERVICE
Cooperative Extension Work in Agriculture and Home Economics and Agricultural Experiment Stations of North Central Region - USDA Cooperating
40' Pole Utility Building
Title Page
MIDWEST PLAN NO. 72057



NOTE: Member sizes shown are for HIGH SNOW REGION (see page 3). For Low Snow Region, girder along open wall may be 2-2" x 10". Use 2" x 4" x 2" - 10' braces and 2" x 6" x 1"-3" fillers in Pole Detail.

POLE SIZES: 5" top x 15", 16'-0" O.C. in front and back walls. 4" top x 12", intermediate poles in ends and back walls.

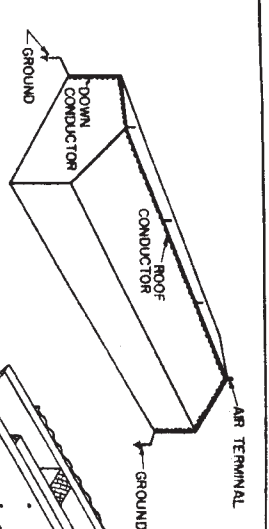
REAR WALL CONSTRUCTION - Intermediate 4" top poles in rear wall are non-loadbearing. This construction permits removal of a 4" top pole to make a 16' doorway. 2" x 4" wall girts may be spaced up to 2'-0" O.C. Use 2" x 6" girts for greater spacings.

- 1/2" BOLTS
- 8d NAILS
- 40d NAILS
- UNLESS OTHERWISE NOTED

ALL NAILS DEFORMED HARDENED STEEL

ALTERNATE CONNECTION
THIS JOINT IS MORE CONVENTIONAL BUT LESS EFFECTIVE THAN THE PLYWOOD DETAIL SHOWN.

SHEET 3: 40' SPAN TRUSSES	
MIDWEST PLAN SERVICE	
COOPERATIVE EXTENSION WORK IN HOME ECONOMICS AND AGRICULTURAL EXPERIMENT STATIONS OF NORTH CENTRAL REGION USDA COOPERATING	
40' POLE	
UTILITY BUILDING	
6911	SHEET 1 OF 3 SHEETS
MIDWEST PLAN NO. 72057	



LIGHTNING PROTECTION FOR GABLE ROOFS

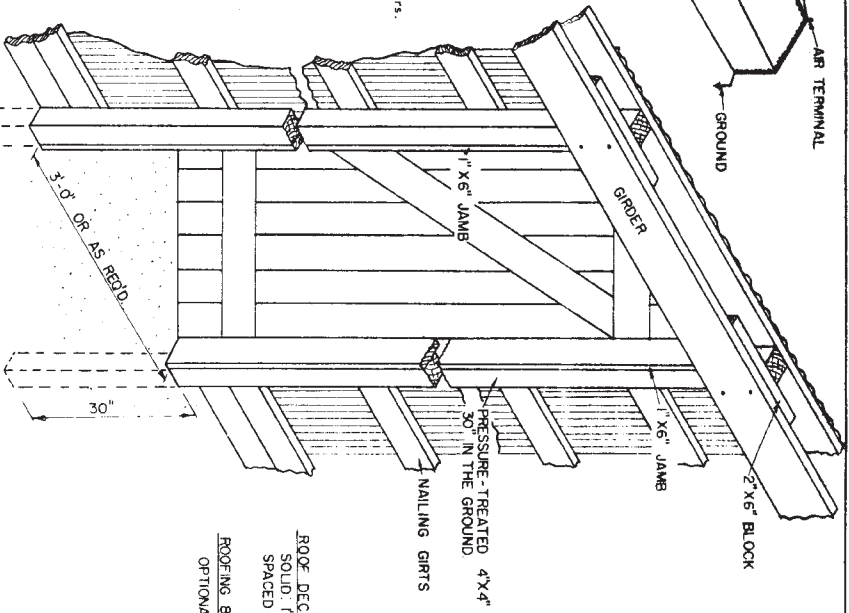
Air Terminals:
At least 24" long.
Up to 25" apart.
1/2" copper or 5/8" aluminum.
5/8" copper tubing, wall thickness over 0.032"

Conductors: 1/2 AMB wires, 1834H/1000.
1 1/2 AMB wires, 924H/1000.
The down conductors minimum, on opposite corners.
For bldgs. over 110' long, use one down conductor per 50' add 1' length.

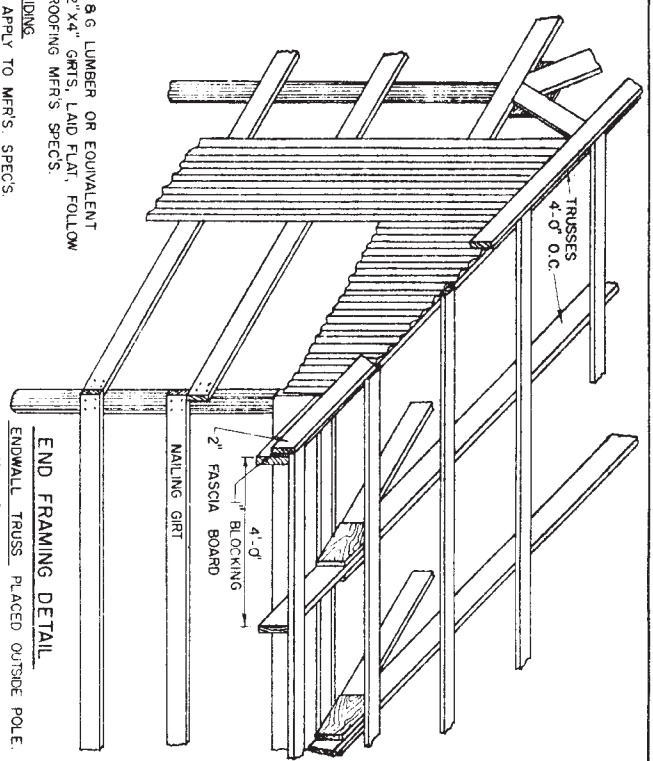
Grounds:
One ground per down conductor.
Rods buried at least 10'.
If water pipe enters bldg, bond at least one down conductor to it.

Metal Roofs:
Ground metal roofs without air terminals by attaching 18# of conductors to roofing with 2-3/8" J or U bolts. Ground down conductors as with air terminals.

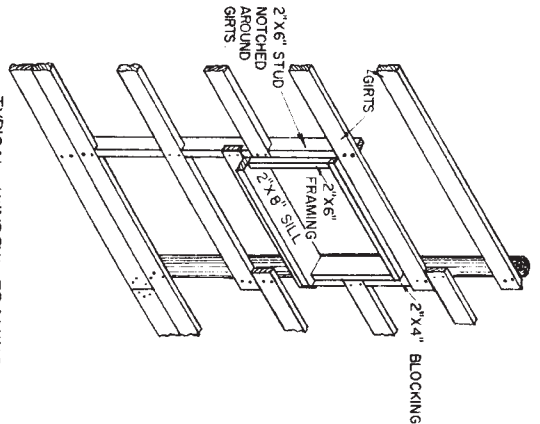
Master Label:
Master Label lightning protection obtain a Master Label System as approved by the Underwriters' Laboratories, Inc.



ROOF DECK:
SOLID 1" T & G LUMBER OR EQUIVALENT
SPACED 2" X 4" GIRTS, LAID FLAT, FOLLOW ROOFING MFR'S SPECS.
ROOFING & SIDING:
OPTIONAL. APPLY TO MFR'S SPECS.

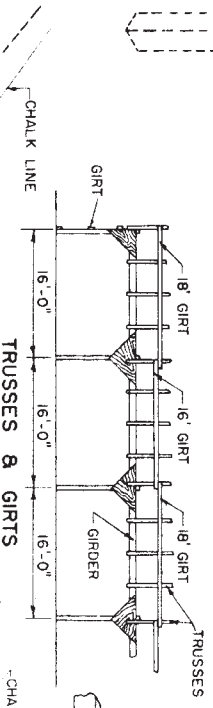


END FRAMING DETAIL:
ENDWALL TRUSS PLACED OUTSIDE POLE.
NAIL SIDING TO TRUSS MEMBERS

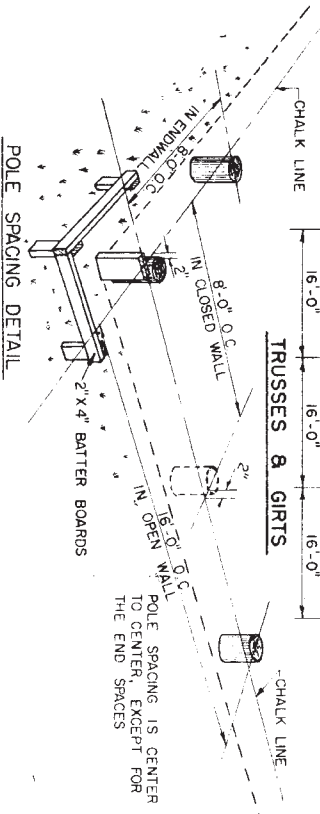
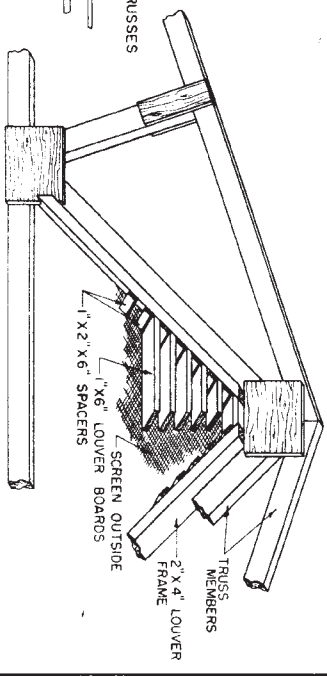


TYPICAL WINDOW FRAMING:
SELECT STOPS & HARDWARE TO SUIT TYPE OF SASH USED

DOOR FRAMING DETAIL:
USE SIMILAR FRAMING FOR LARGE DOOR IN ENDWALL.



TYPICAL LOUVER CONSTRUCTION:



POLE SPACING IS CENTER TO CENTER, EXCEPT FOR THE END SPACES

MIDWEST PLAN SERVICE

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
OF NORTH CENTRAL REGION, USDA COOPERATING

24' POLE

UTILITY BUILDING

SHEET 2 OF 3 SHEETS

MIDWEST PLAN NO. 72054

BUILDING SECTION (16' LONG)

ITEM	DESCRIPTION	BEGINNING NO. FBH	ADDITIONAL NO. FBH	CLOSING NO. FBH
Concrete Poles	Cu. feet 5" Top x 16' 4" Top x 16'	4 4	2 2	2 2
Girders	2"x8"x16'0"	3	1	3
Bracing-	1"x4"x8' c-c, Ext. Plywood	4	4	4
	2"x4"x14'0"	1 1/2	1	1/2
	2"x6"x6'0"	3	2	1
Trusses	2"x6"x7'0"	2	1	1
	2"x6"x7'0"	2	2	14
	See Page 3	5	3	4
Girts	2"x4"x16'0"	7	7	7
	2"x4"x18'0"	7	7	84
	2"x6"x16'0"	10	3	10
Skirt Siding	2"x6"x16'0" Pressure-treated	5	2	5
	Sq. feet	445	160	445
Roofing	Sq. feet	448	448	448
	Ln. feet Eaves trough	32	32	32
Louver	2"x4"x6'0"	2	2	2
	1"x6"x10'0"	5	5	5
	1"x2"x12'0"	1	1	1
Man door	Sq. ft. screen	15	2	15
	4"x4"x12'6"	2	34	2
	2"x6"x2'0"	1	2	1
	1"x6"x10'0"	11	55	11

