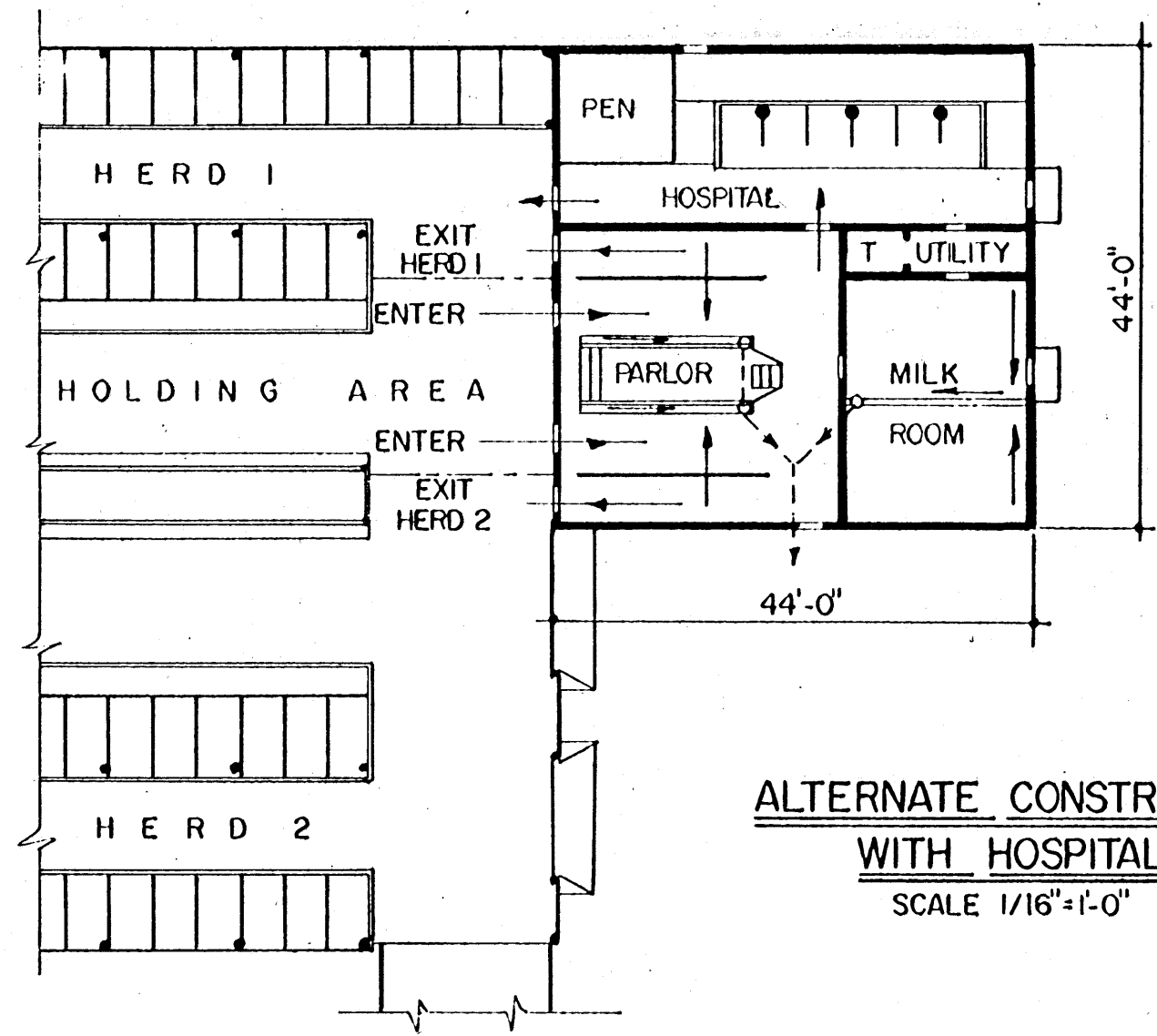


BASIC FLOOR PLAN (124 STALLS)
SCALE 1/16"=1'-0"



ALTERNATE CONSTRUCTION WITH HOSPITAL
SCALE 1/16"=1'-0"

NOTES:

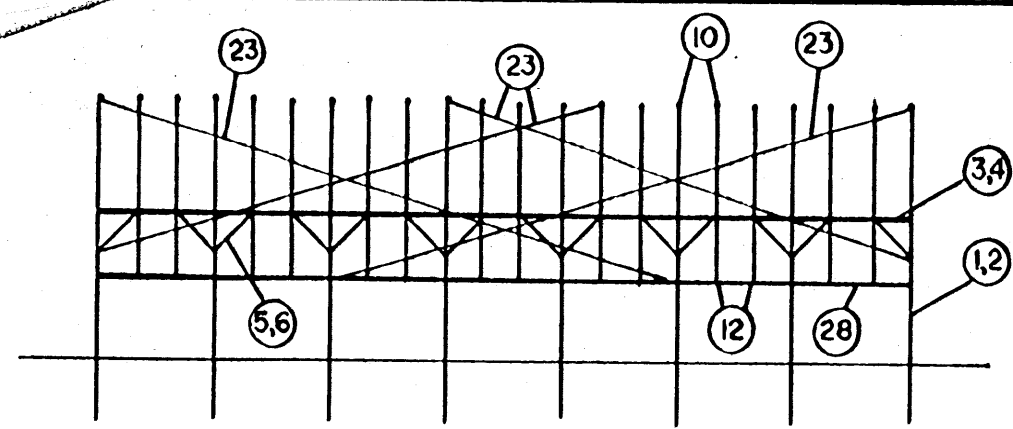
1. THIS SYSTEM PROVIDES FOR SPLIT HERD OPERATION, REGARDLESS OF SIZE (BY DIVIDING ALONG THE CENTER FEED BUNK) WITH HAY AND SILAGE FEEDING.
2. AS THE SYSTEM IS EXPANDED FEED SPACE WILL BE IN DIRECT PROPORTION TO THE NUMBER OF ANIMAL HOUSED.
3. THIS DESIGN IS FOR A COLD ENVIRONMENT WITH NATURAL VENTILATION USING RIDGE VENTILATORS; DROP DOWN PANELS IN THE NORTH WALL, AND SOUTH FRONT OPEN ABOVE THE ANIMALS HEADS.
4. SELF-UNLOADING WAGON FEEDING IS PROVIDED FOR BY HAVING ONE DRIVE THROUGH FEED ALLEY.
5. ALL CONCRETE SHOULD BE AIR ENTRAINED, 4 - 6% AIR BY VOLUME.

COOPERATIVE EXTENSION WORK IN
 AGRICULTURE AND HOME ECONOMICS
 STATE OF MISSISSIPPI
 MISSISSIPPI STATE UNIVERSITY
 AND
 UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

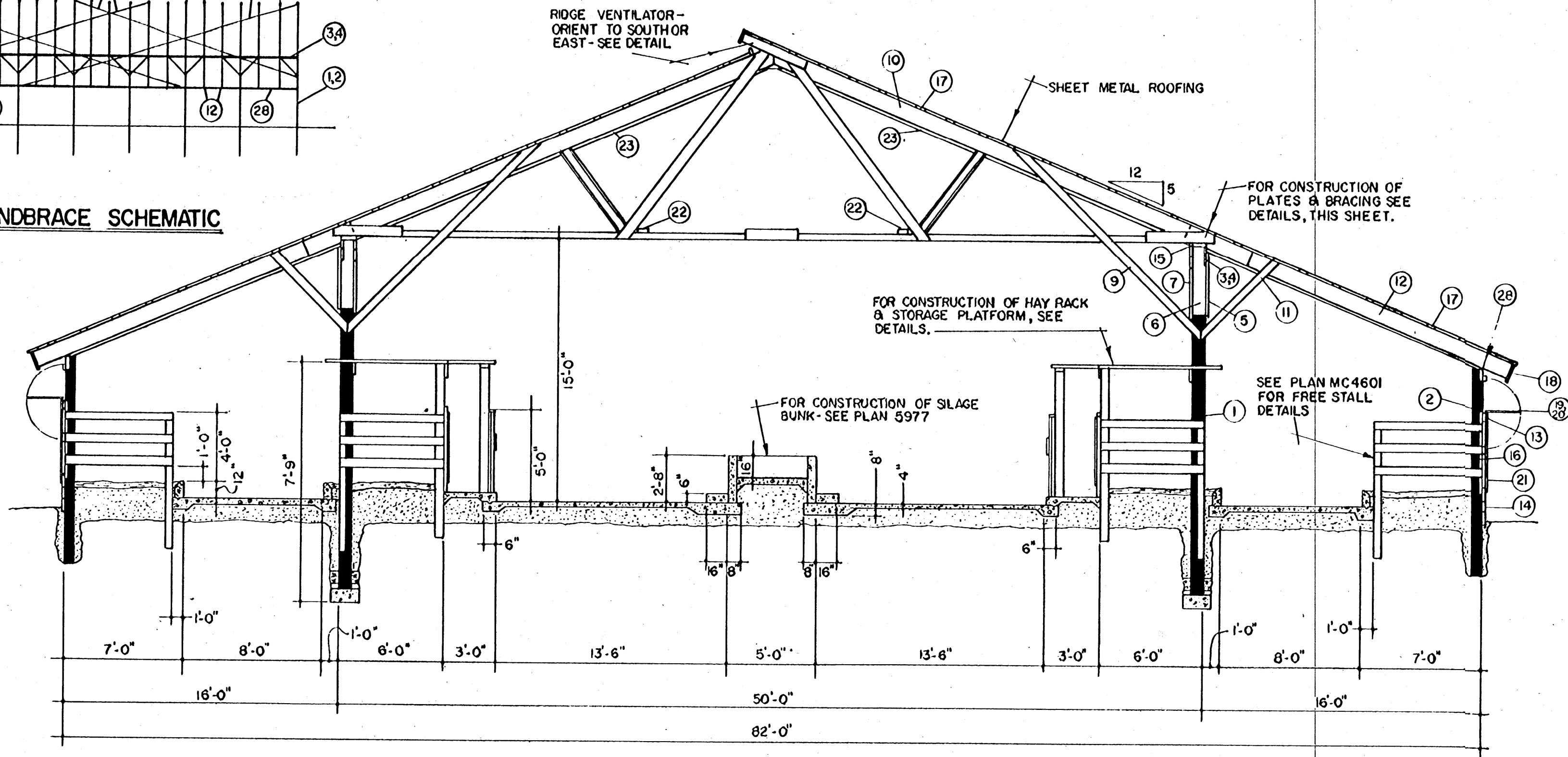
**LOOSE HOUSING SYSTEM
 COVERED FREE-STALL**

MASS.'67	EX. 6031	SHEET 1 OF 4
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BASED ON MASS. PLAN MC 5608



WINDBRACE SCHEMATIC

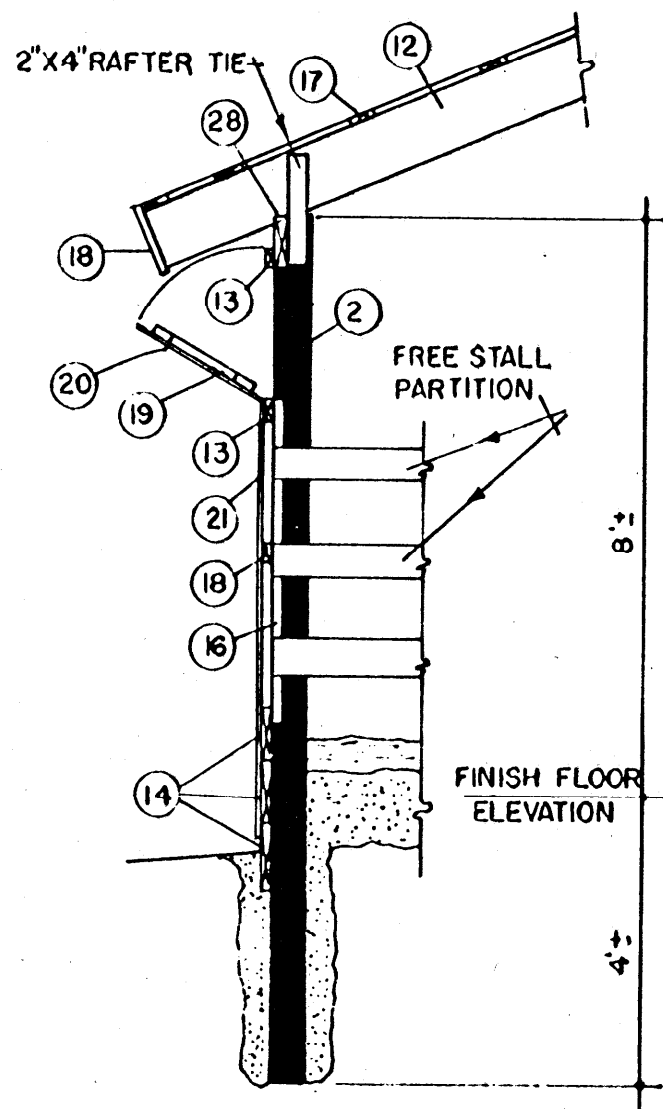


CROSS SECTION

SCALE 3/16" = 1'-0"

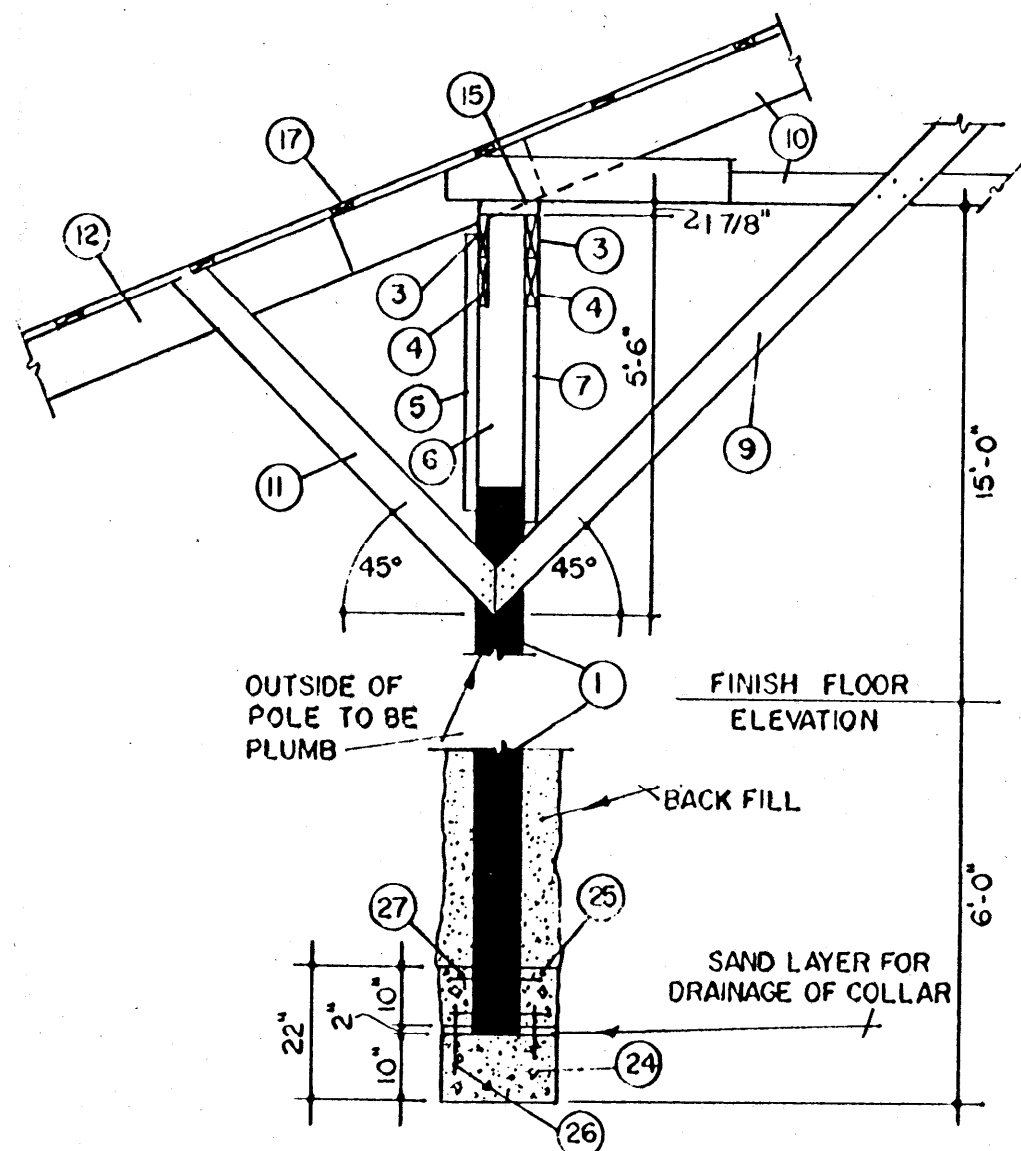
NOTES & PIECE LIST

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'-0" 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 9' 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



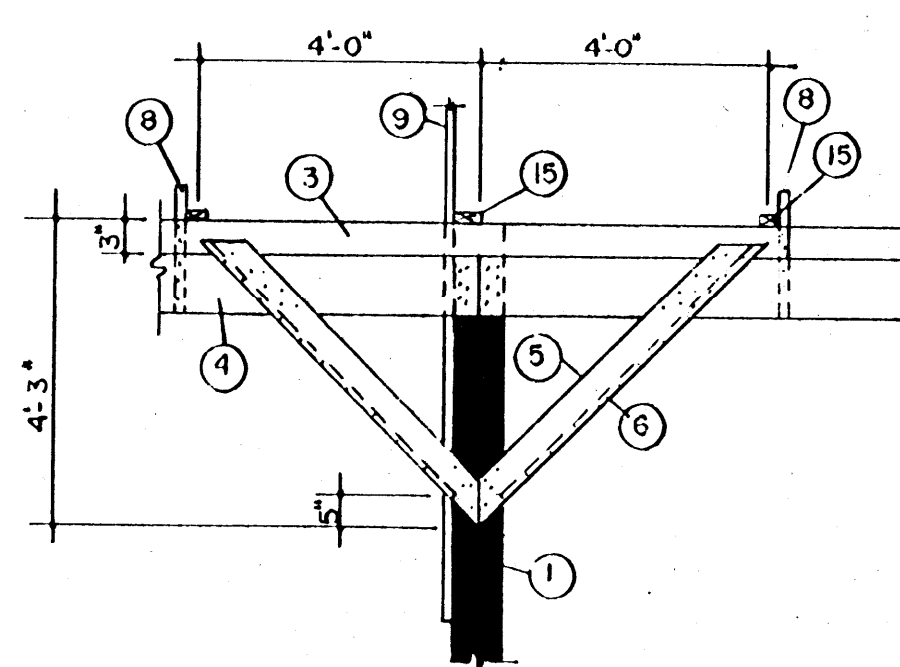
DETAIL AT OUTER POLES

SCALE 3/8" = 1'-0"



DETAILS AT INNER POLES

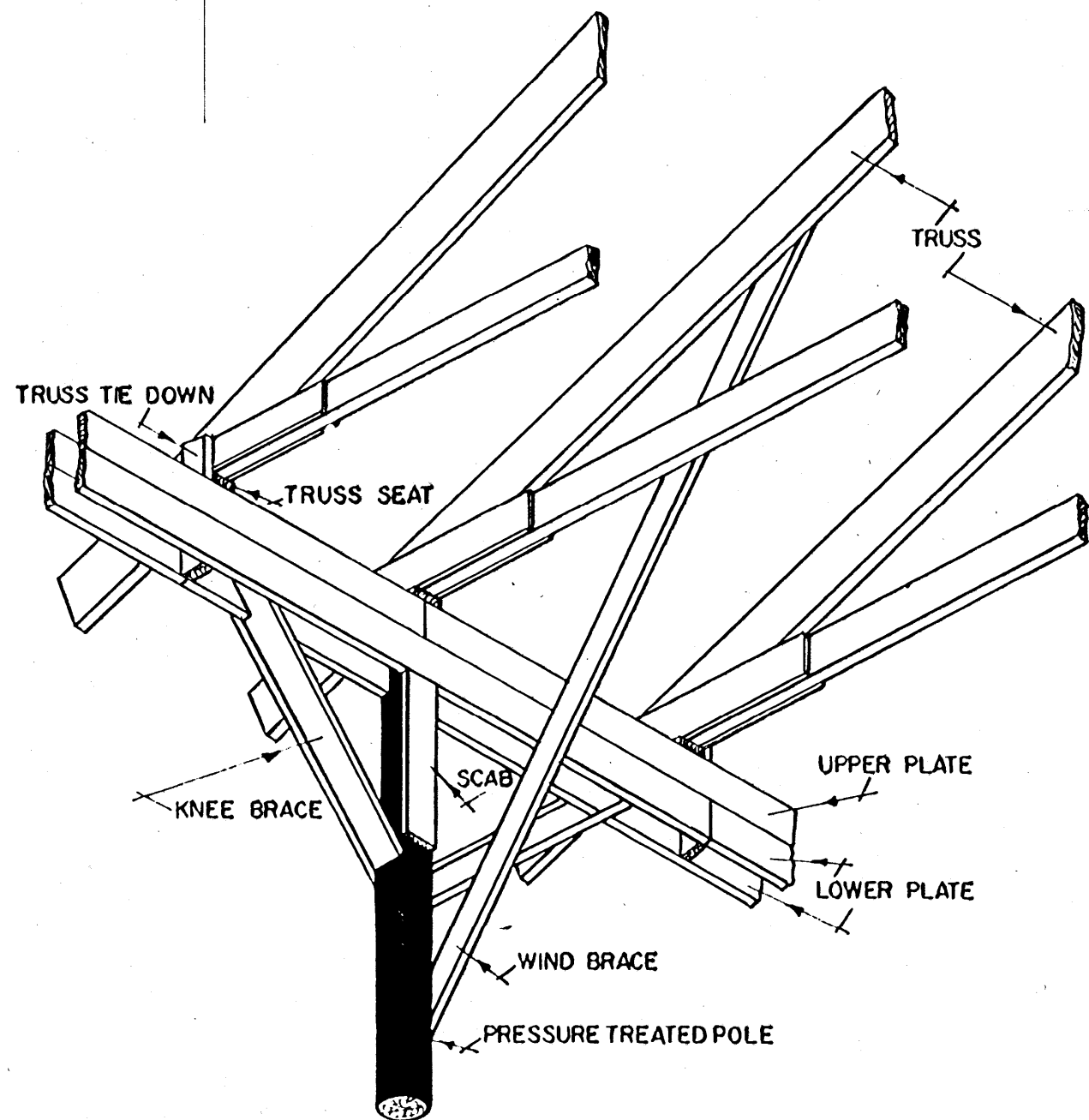
SCALE: 3/8" = 1'-0"



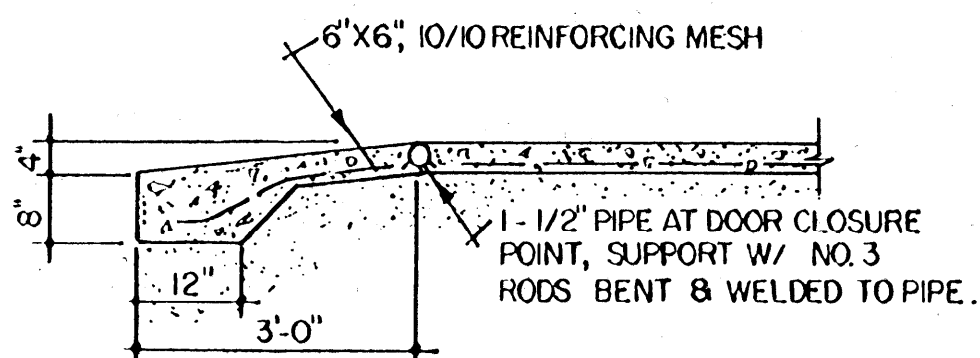
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**LOOSE HOUSING SYSTEM
 COVERED FREE-STALL**

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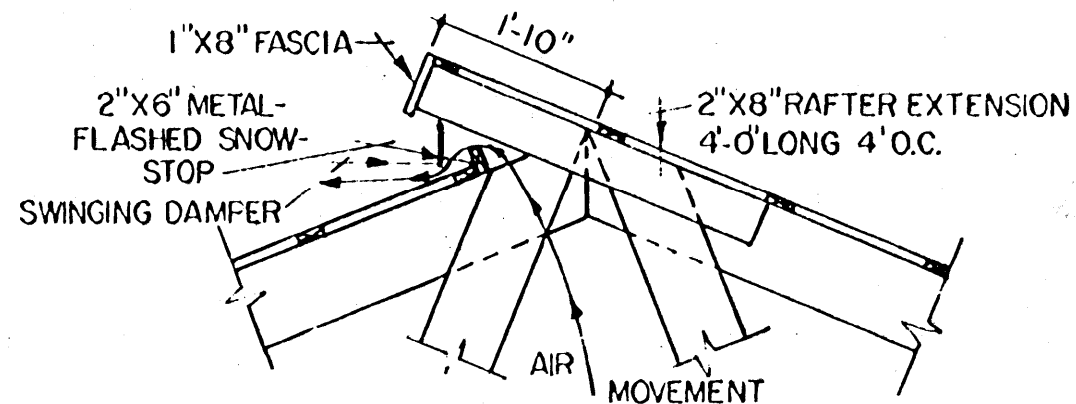


STRUCTURAL FRAMING PICTORIAL



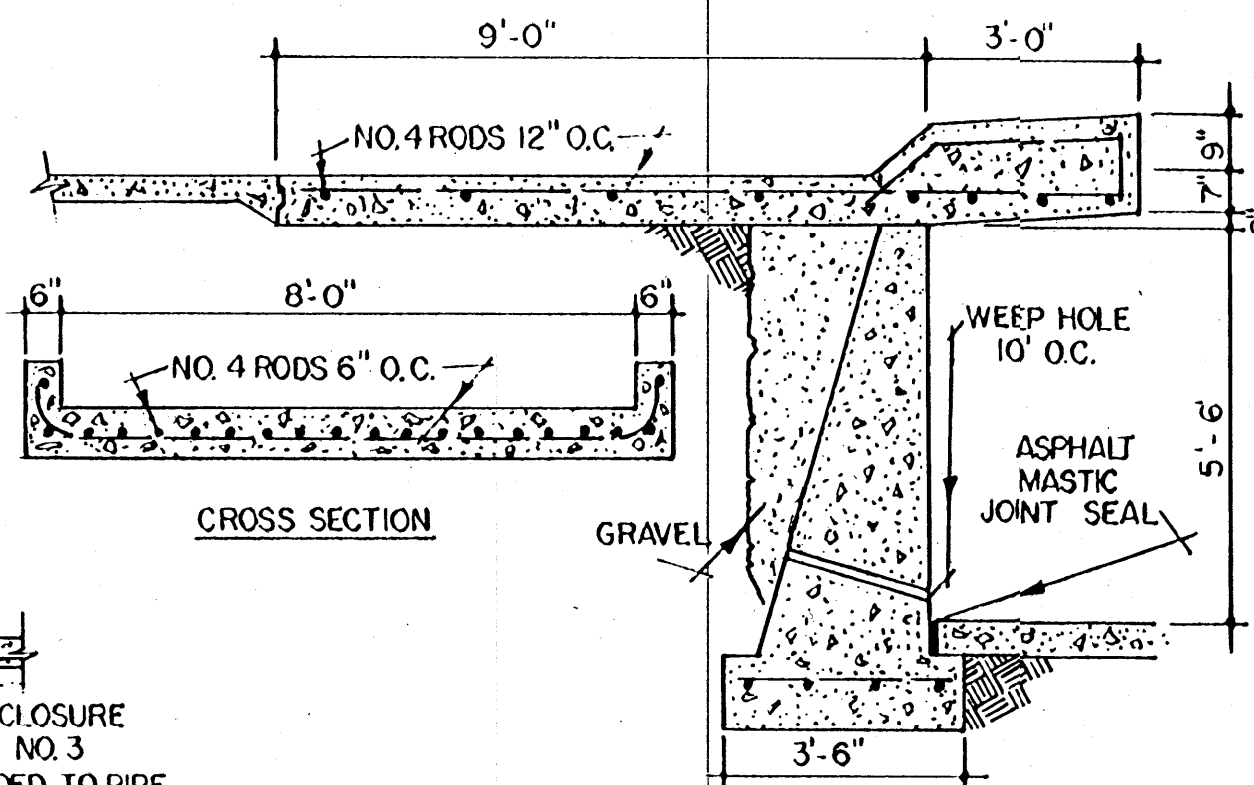
ENTRY RAMP

SCALE 1/2" = 1'-0"



CONTINUOUS RIDGE VENTILATOR

SCALE 1/2" = 1'-0"

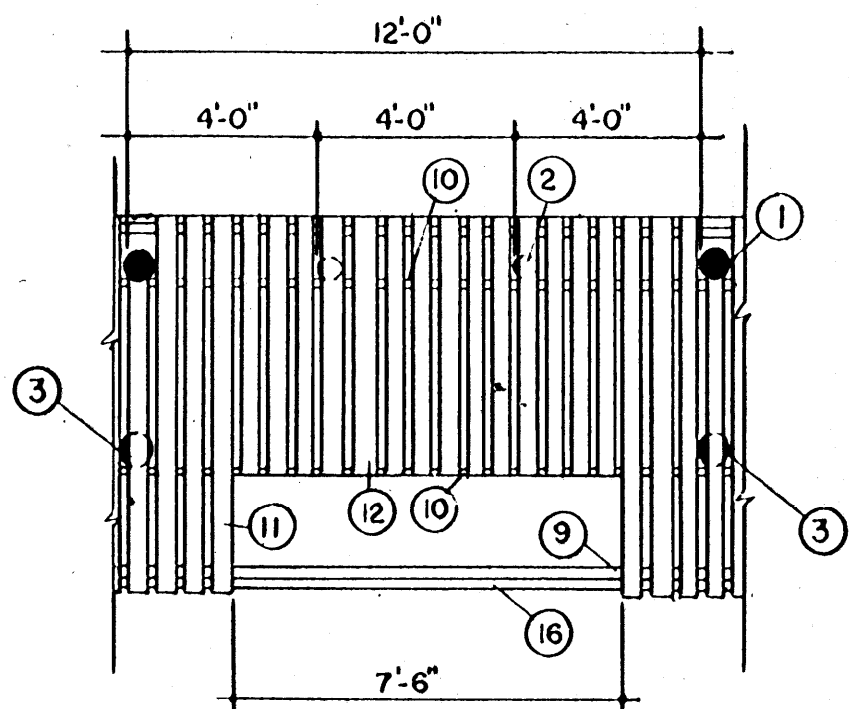


MANURE LIP

SCALE 3/8" = 1'-0"

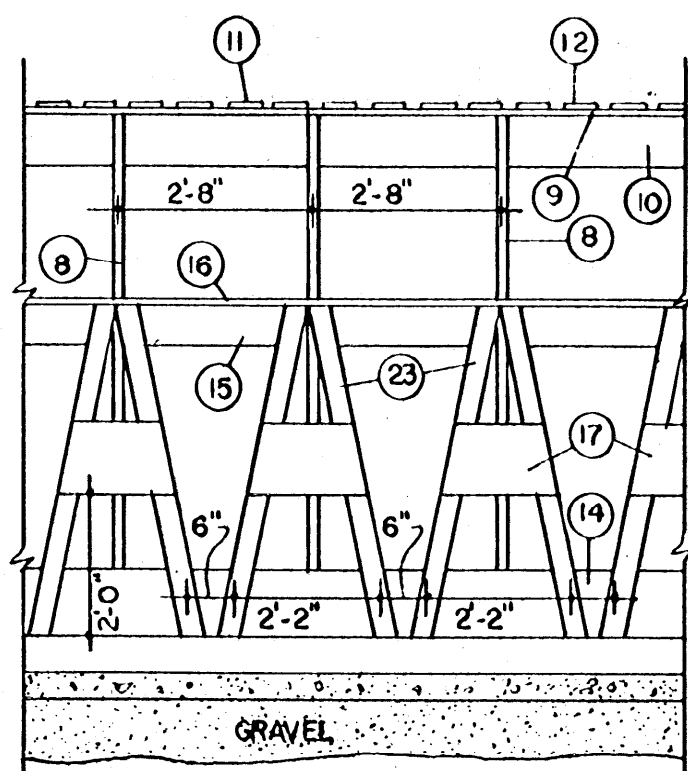
PIECE LIST & NOTES

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" ANCHOR BOLTS, 4' O.C.
19. #3 (3/8" ϕ) 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



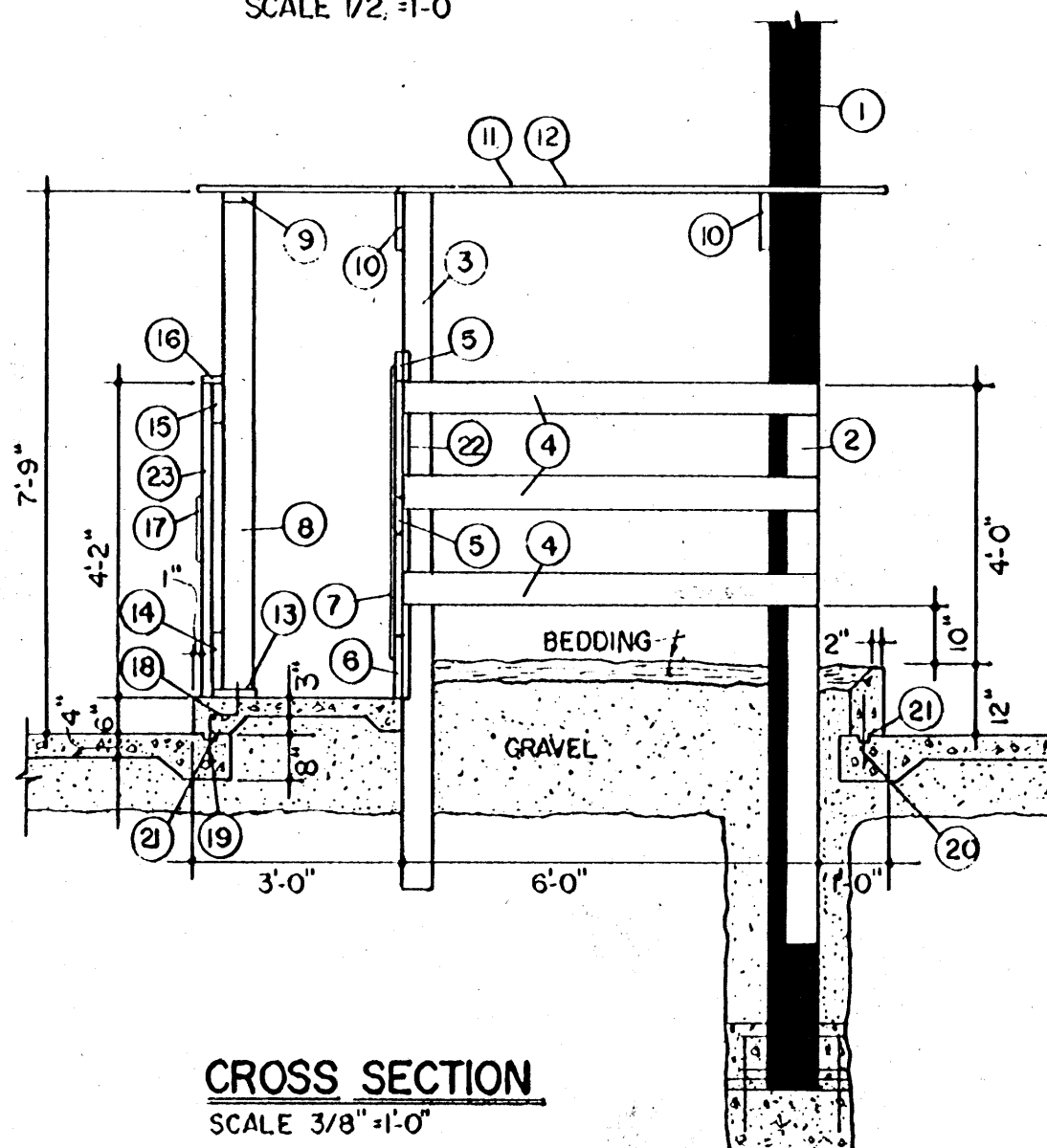
PARTIAL PLAN

SCALE 1/4" = 1'-0"



FRONT ELEVATION

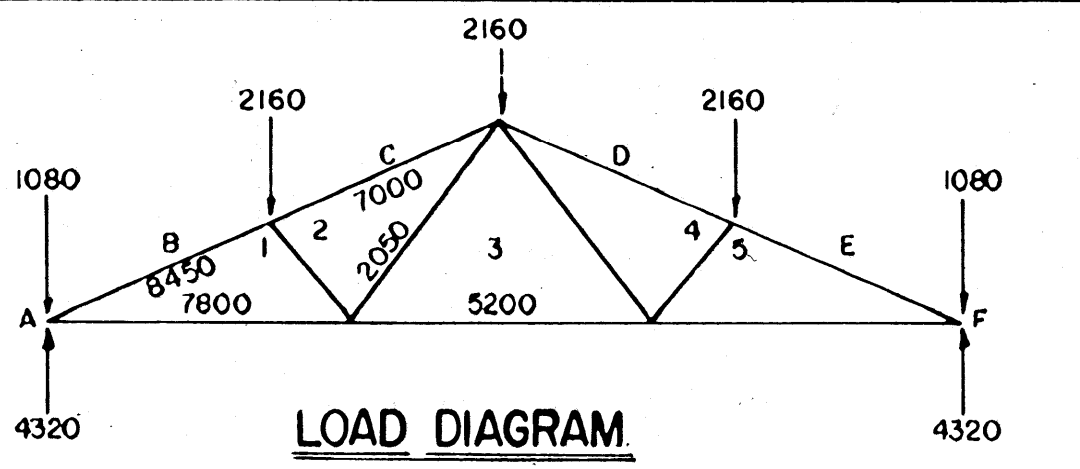
SCALE 3/8" = 1'-0"



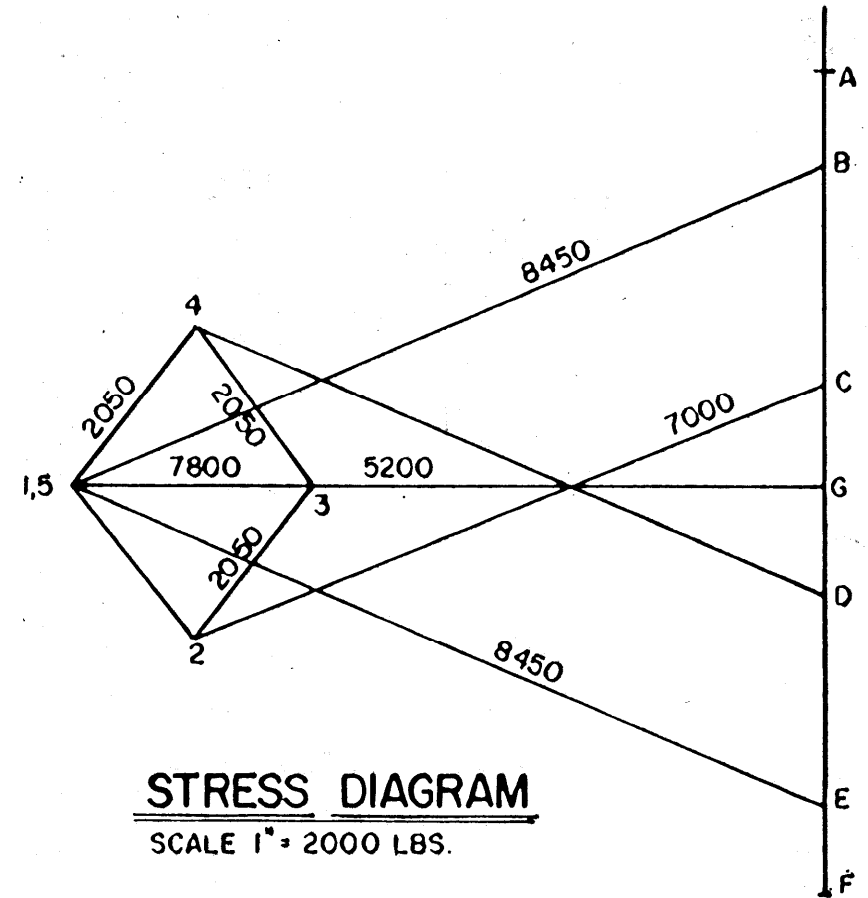
CROSS SECTION

SCALE 3/8" = 1'-0"

HAY RACK DETAILS



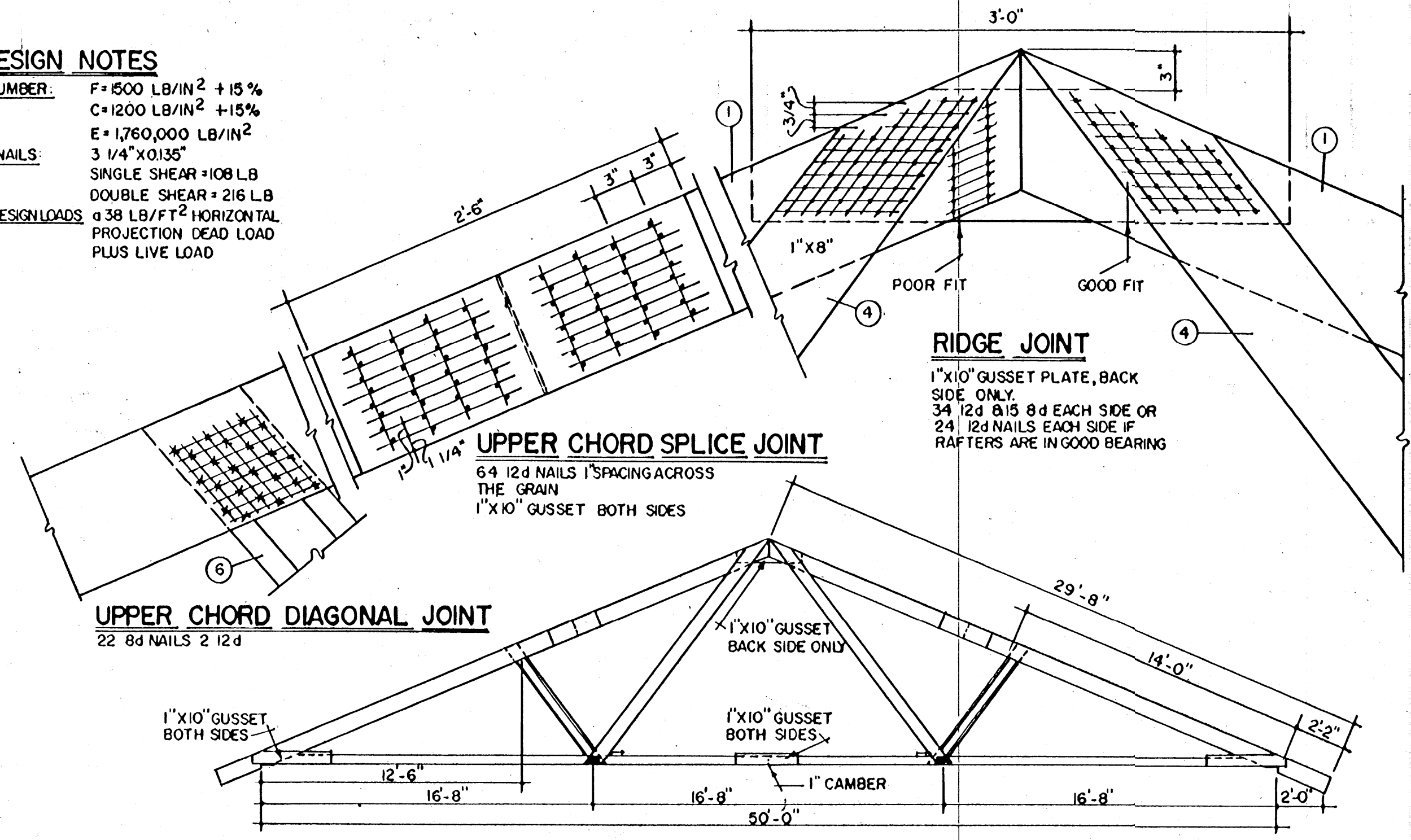
LOAD DIAGRAM



STRESS DIAGRAM
SCALE 1" = 2000 LBS.

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
3. DESIGN LOADS: 38 LB/FT² HORIZONTAL
PROJECTION DEAD LOAD
PLUS LIVE LOAD



FRONT VIEW OF TRUSS ASSEMBLY

RIDGE JOINT

1" X 10" GUSSET PLATE, BACK SIDE ONLY.
34 12d 8d EACH SIDE OR
24 12d NAILS EACH SIDE IF
RAFTERS ARE IN GOOD BEARING

UPPER CHORD SPLICE JOINT

64 12d NAILS 1" SPACING ACROSS
THE GRAIN
1" X 10" GUSSET BOTH SIDES

UPPER CHORD DIAGONAL JOINT

22 8d NAILS 2 12d

HEEL JOINT

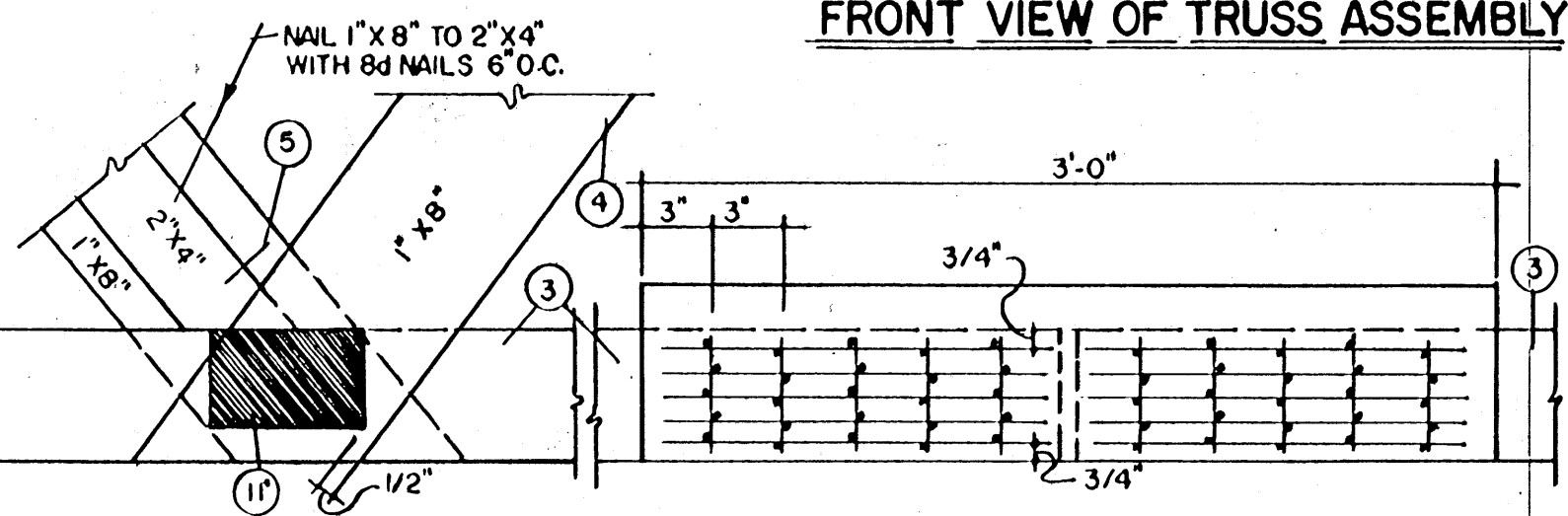
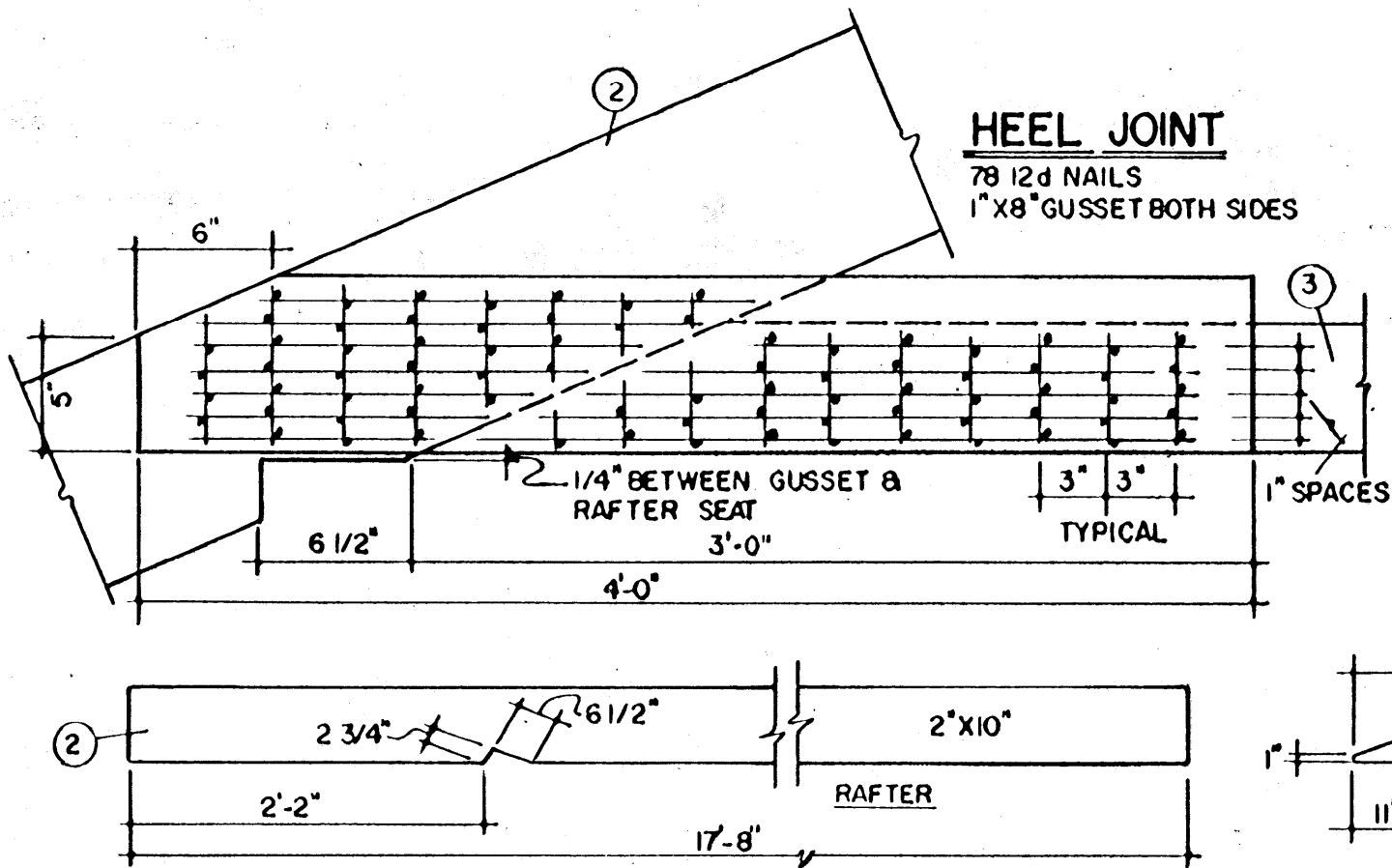
78 12d NAILS
1" X 8" GUSSET BOTH SIDES

LOWER CHORD-DIAGONAL JOINT

21 12d NAILS 4 METAL GUSSETS

CENTER SPLICE JOINT

50 12d NAILS, 1" X 8" GUSSET BOTH SIDES

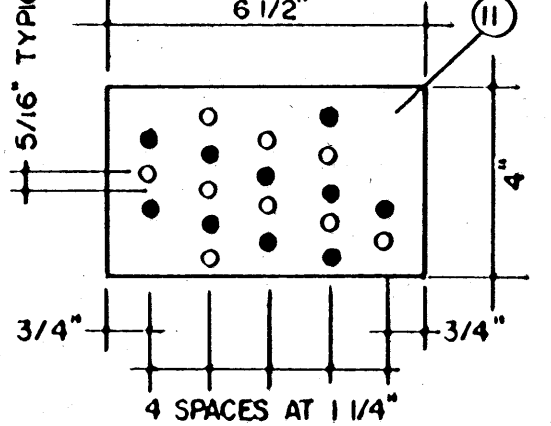


NOTES & SPECIFICATIONS

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

METAL GUSSET PLATE (22 GA)

SCALE 3" = 1'-0", FOR LOWER CHORD DIAGONAL JOINT.



SECTION THRU LOWER CHORD-DIAGONAL JOINT

SCALE 3" = 1'-0"

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