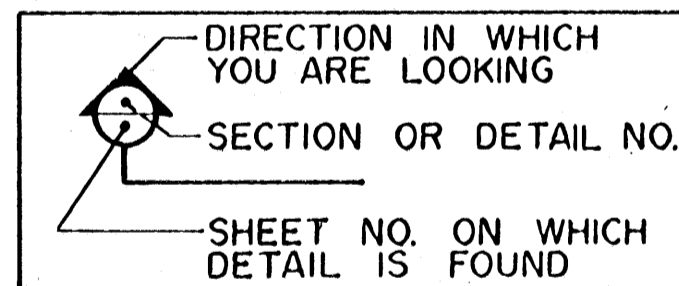
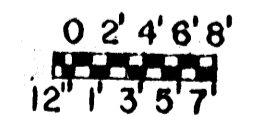


FLOOR PLAN

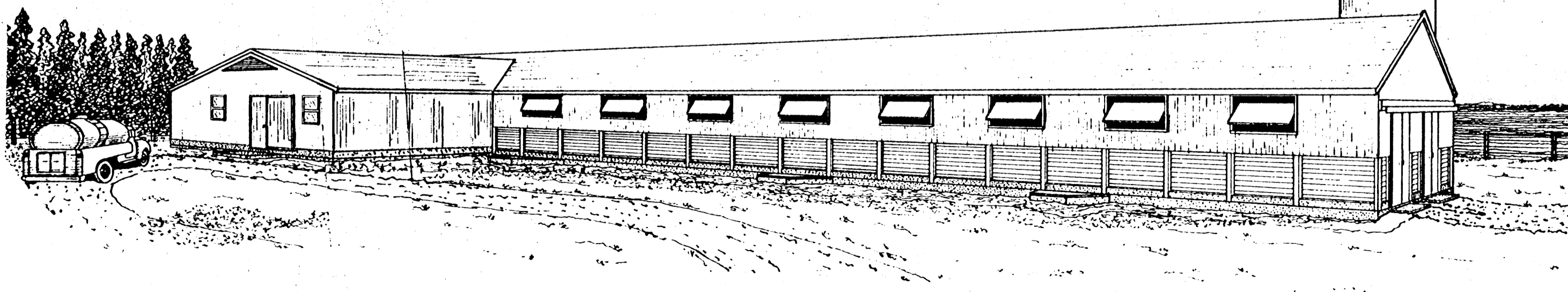
PROVIDE SEPARATE YOUNGSTOCK FACILITIES



NOTE: 300 DAY MANURE STORAGE SLAT FLOOR

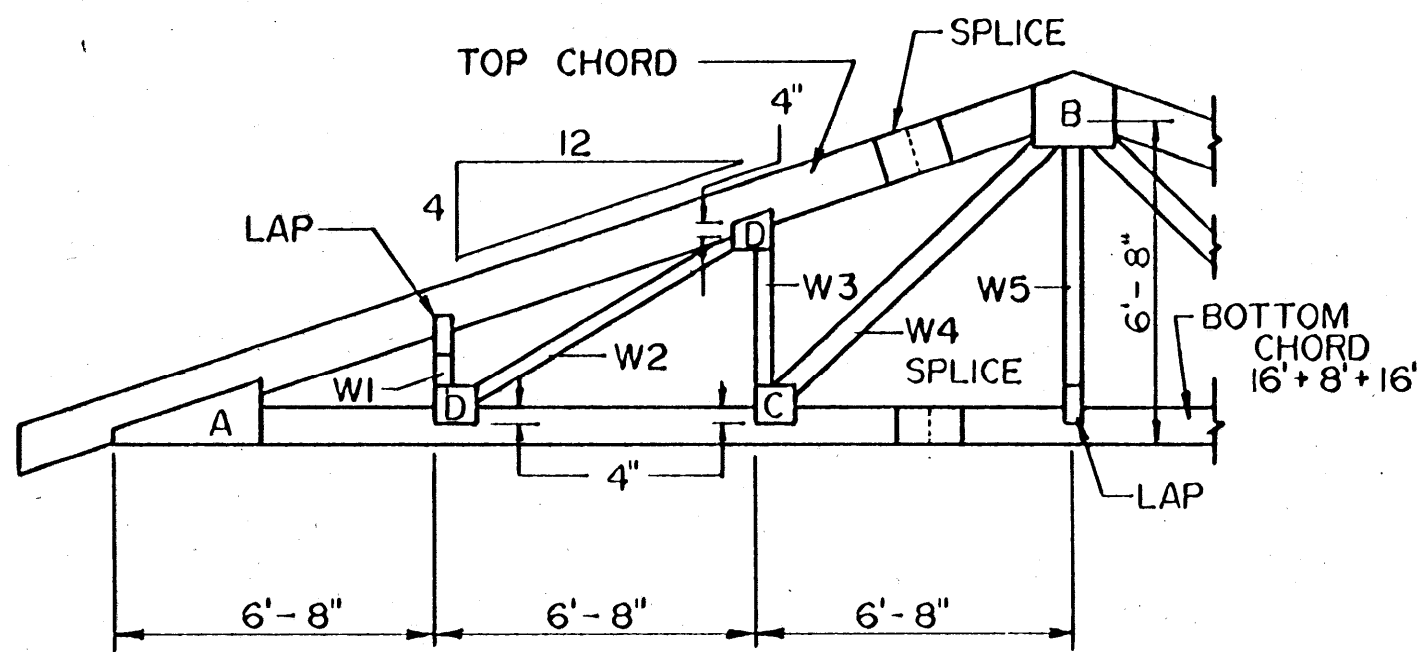


SCALE: 3/32" = 1'-0" UNLESS OTHERWISE NOTED.



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FREE-STALL DAIRY BARN		
80 COW		
MINN. '77	6 2 8 1	SHEET 1 OF 12

BASED ON: UNIV. OF MINN. PLAN NO. C-1068



Gussets B, C, and D are 3/8" thick plywood.

4/12 SLOPE

8' TRUSS SPACING

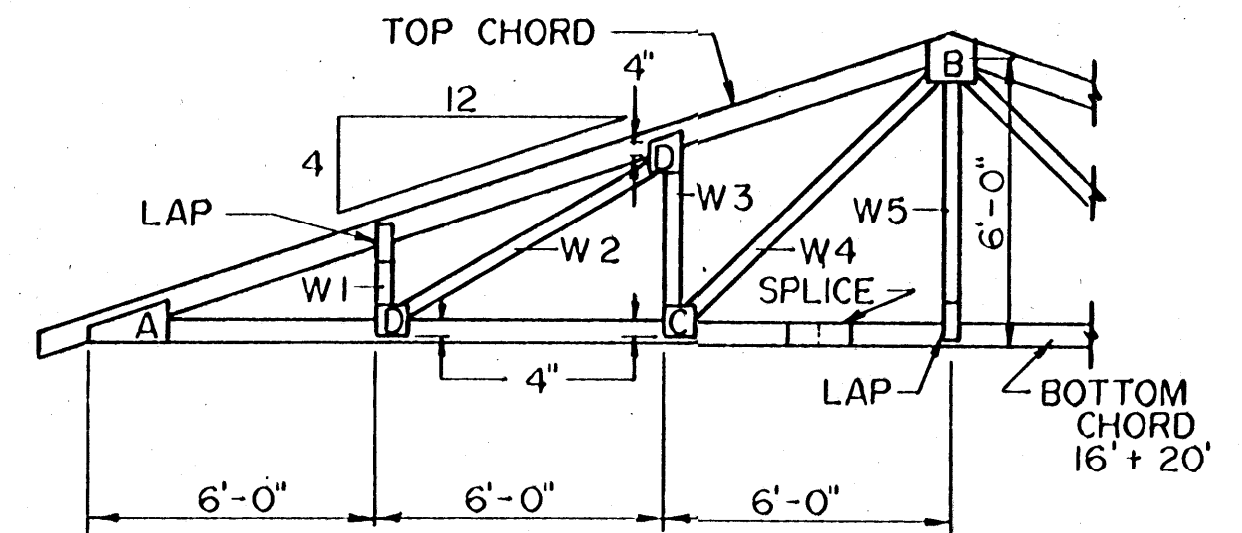
40' SPAN,
4-WEB

DEAD LOAD	SNOW ZONE	LUMBER TYPE	TOP CHORD	BOTTOM CHORD	GUSSET SIZES, in.										CRANE LOAD lbs.
					A T, H, W,	B H, W,	C H, W,	D H, W,	W 2	W 1 AND W 5 ARE 2 X 4'S W 3	W 4				
LOW	III	Hem	2 X 12	2 X 10	1/2" x 4" x 36"	16" x 20"	10" x 10"	10" x 10"	2 x 4	2 x 4	2 x 4	2 x 6	1239		

40' span, 4-web

GLUED TRUSSES

ROOF SLOPE	RISE	TOP CHORD	W 1	W 2	W 3	W 4	W 5
4/12	6'-8"	19'+4'	2'	8'	5'	9'	7'



Gussets B, C, and D are 3/8" thick plywood.

4/12 SLOPE

2' TRUSS SPACING

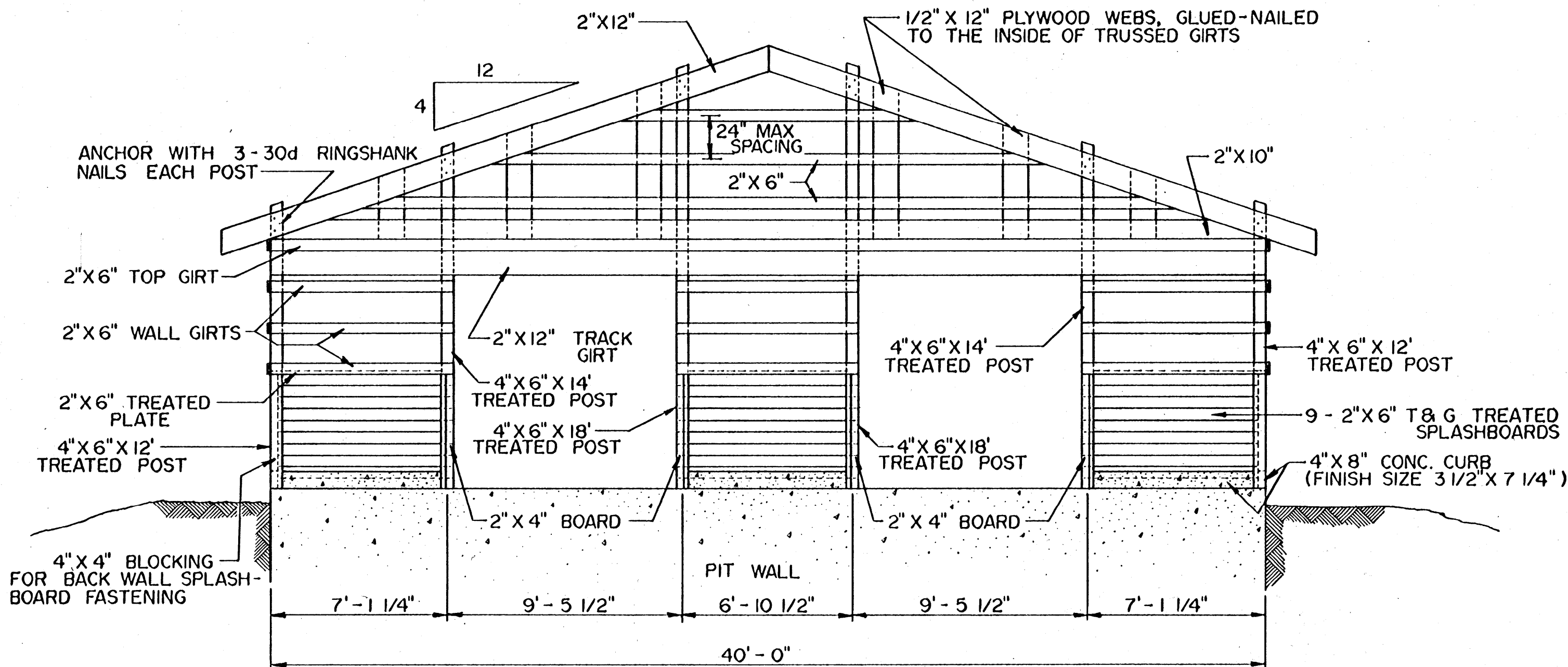
36' SPAN
4-WEB

DEAD LOAD	SNOW ZONE	LUMBER TYPE	TOP CHORD	BOTTOM CHORD	GUSSET SIZES, in.										CRANE LOAD lbs.
					A T, H, W,	B H, W,	C H, W,	D H, W,	W 2	W 1 AND W 5 ARE 2 X 4'S W 3	W 4				
MED	III	HEM	2 x 6	2 x 6	3/8" x 4" x 18"	10" x 12"	8" x 8"	8" x 8"	2 x 4	2 x 4	2 x 4	2 x 4	1627		

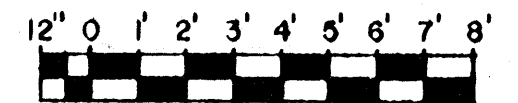
ROOF SLOPE	RISE	TOP CHORD	W 1	W 2	W 3	W 4	W 5
4/12	6'-0"	20'	2'	7'	4'	8'	6'

GLUED TRUSSES

36' span, 4-web



40' END WALL FRAMING 1/2

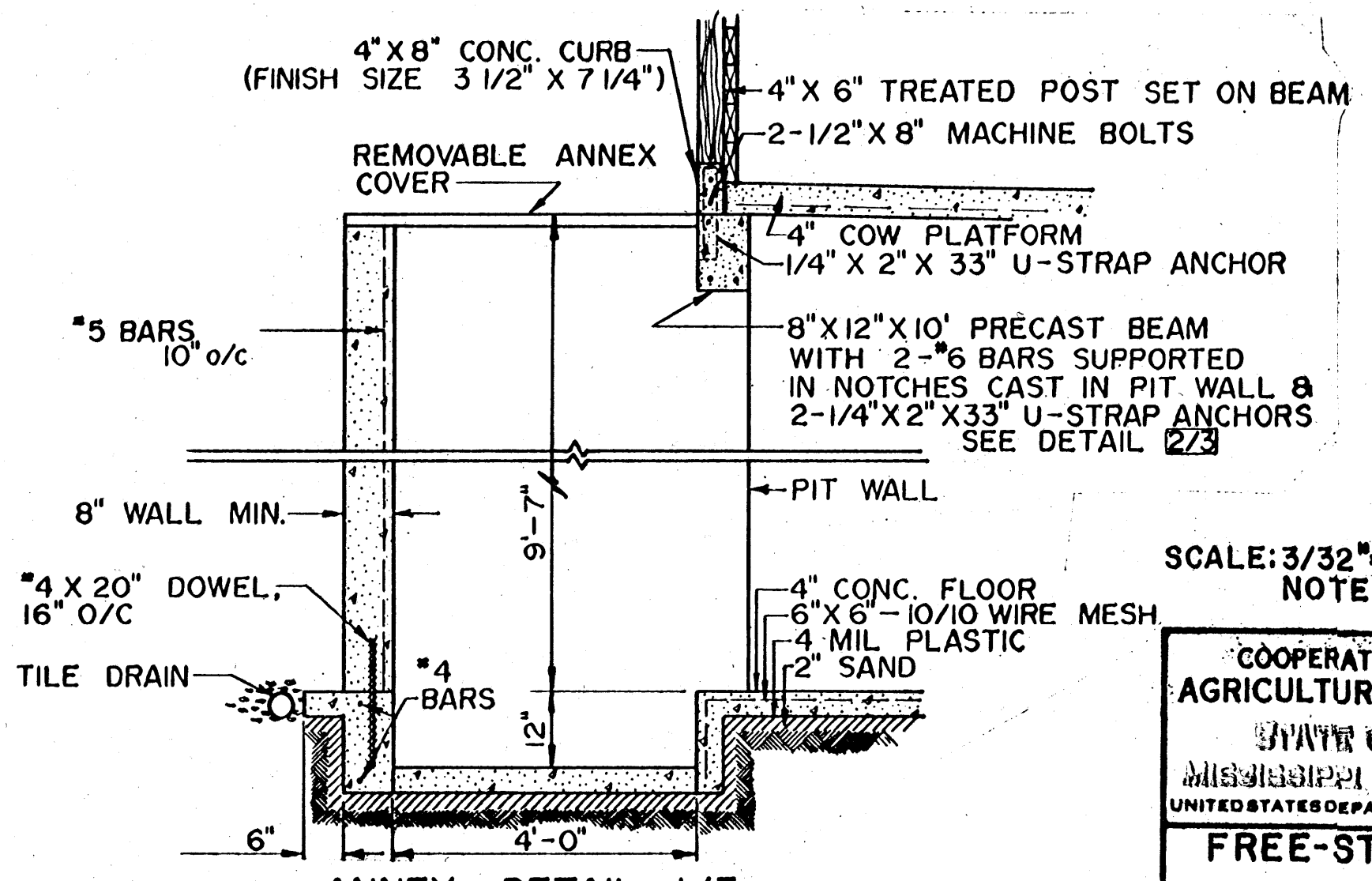
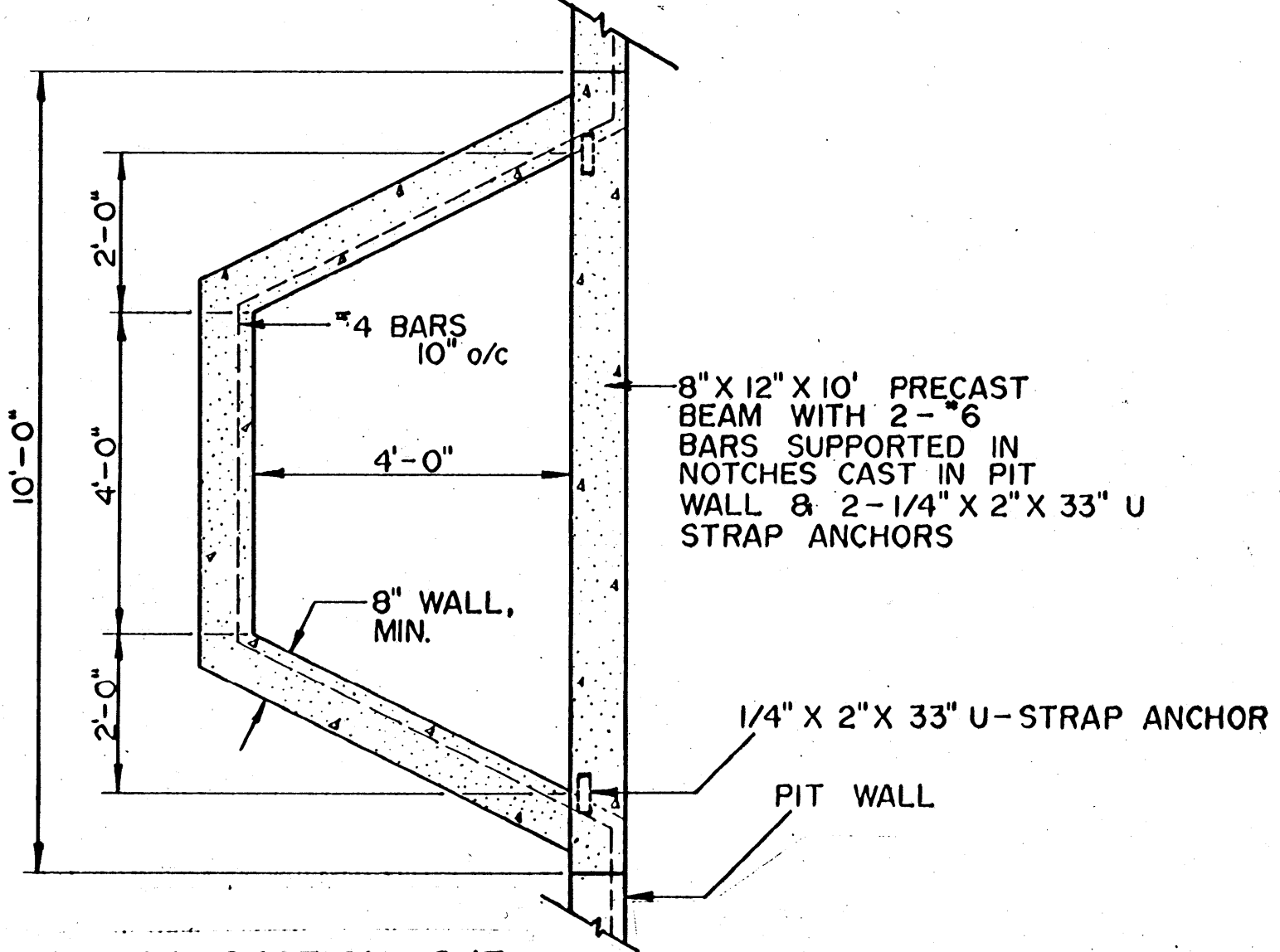
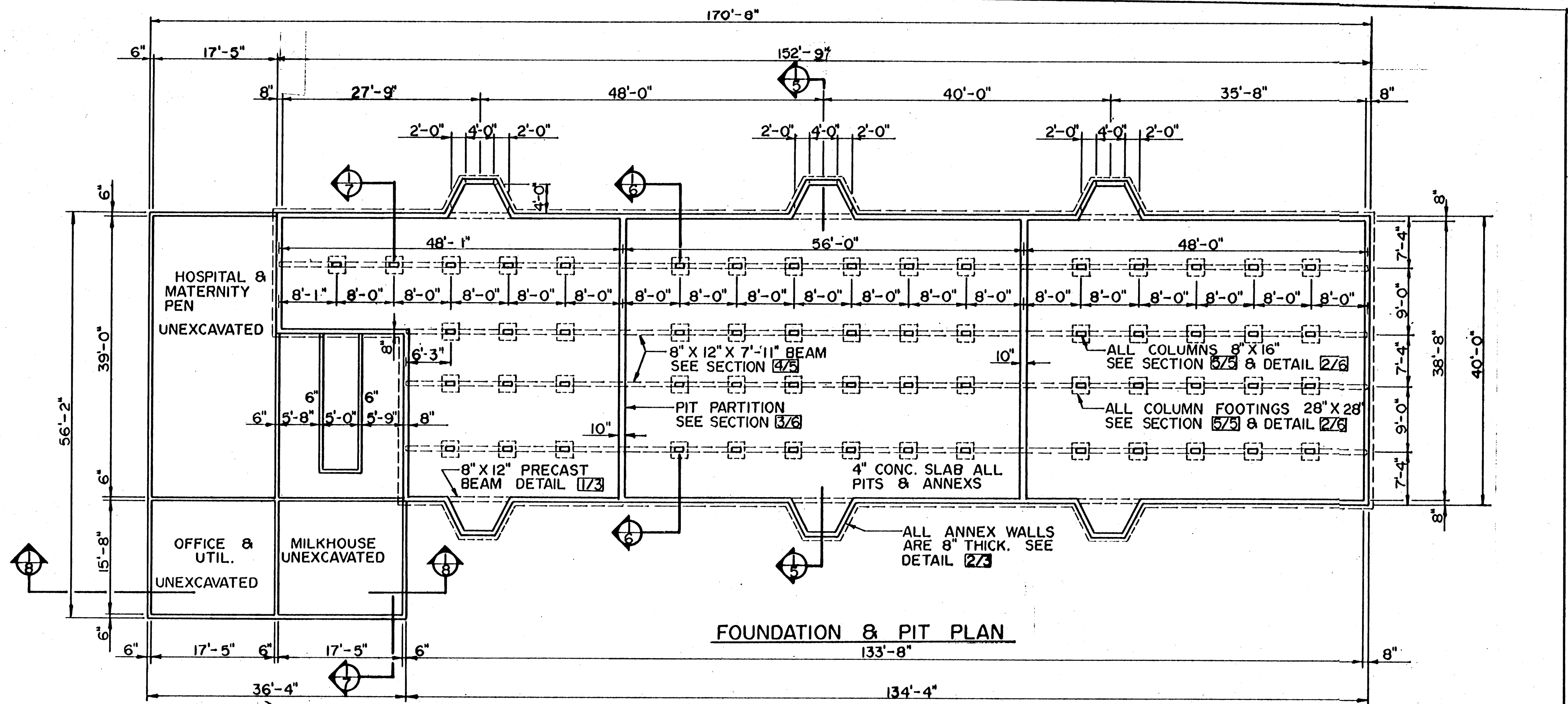


SCALE: 1/4" = 1'-0" UNLESS OTHERWISE NOTED.

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FREE-STALL DAIRY BARN
80 COW

MINN. '77	6 2 8 1	SHEET 2 OF 12
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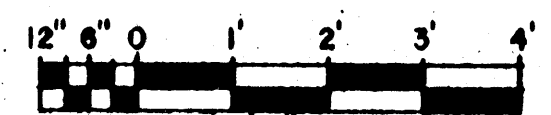
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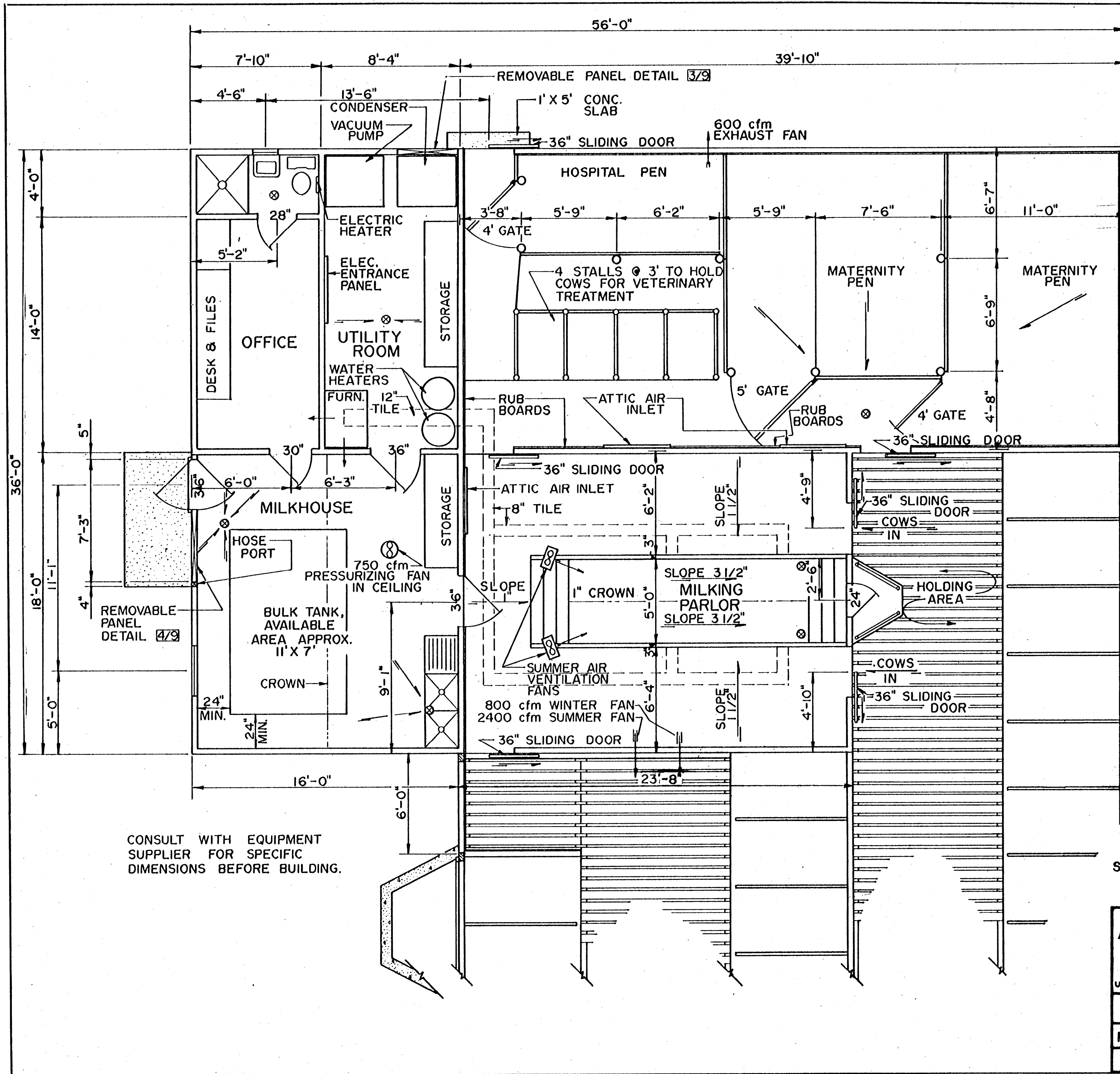
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FREE-STALL DAIRY BARN
 80 COW

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Milking parlor pit equipped with two, suspended ceiling fans for air ventilation. Control fans with manual switches. Use deep seal floor drains, ⊗

Install 2X12 rub board, centered 36" above floor, along walls cows have access to.

Heating—Duct 15 kw or 50,000 btu downdraft furnace under the floor to milker's alley, milkhouse office and hospital area. Locate cold air returns high in the wall from milking parlor, milkhouse and hospital area.

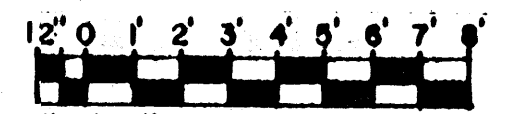
Water heaters—used one 80 gal., 165°F and one 50 gal., 115°F.

Slopes:
 Milking Parlor—1/4" / ft. to drain
 Hospital Area—3" from walls to drain
 Milkhouse—2" from walls and crown to drains
 Utility—1" from walls to drain

Floor:
 4" Concrete Slab, thicken to 8" under bulk tank.

Provide 6" to 8" step up from holding area to milking parlor and 2" step up from milking parlor to milkhouse and hospital area. A 1" to 2" sill from milkhouse to utility room, office and milking parlor also may be used to prevent washing between rooms.

Before you build this milking center consult with and get the approval of the health authorities having control of the sale of your milk.



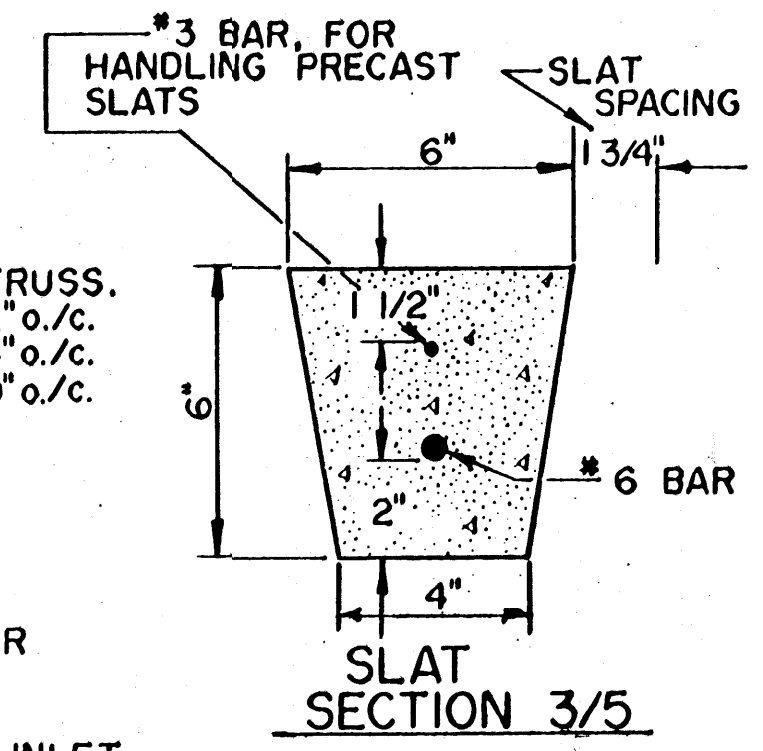
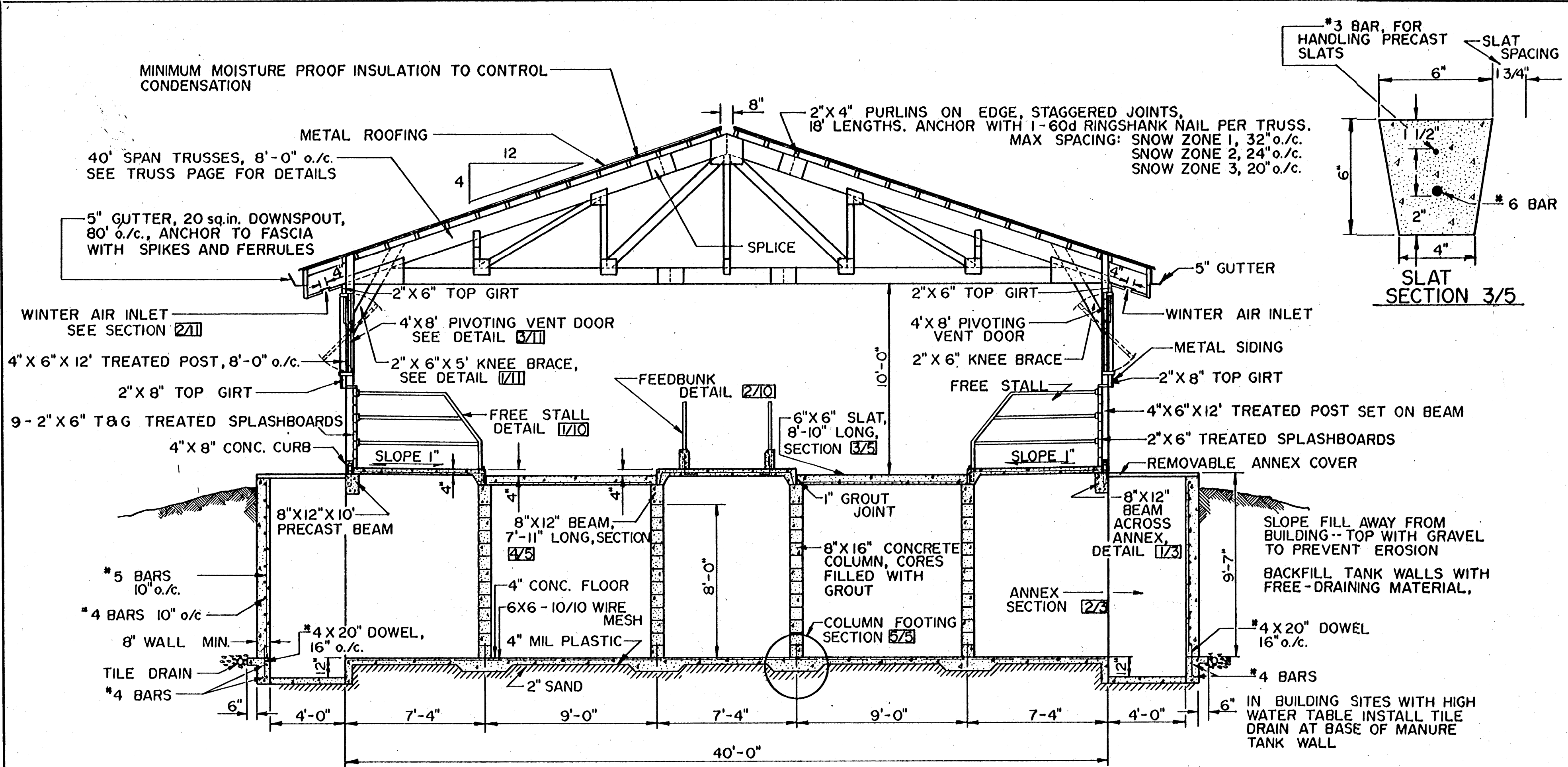
SCALE: 1/4" = 1'-0" UNLESS OTHERWISE NOTED.

CONSULT WITH EQUIPMENT SUPPLIER FOR SPECIFIC DIMENSIONS BEFORE BUILDING.

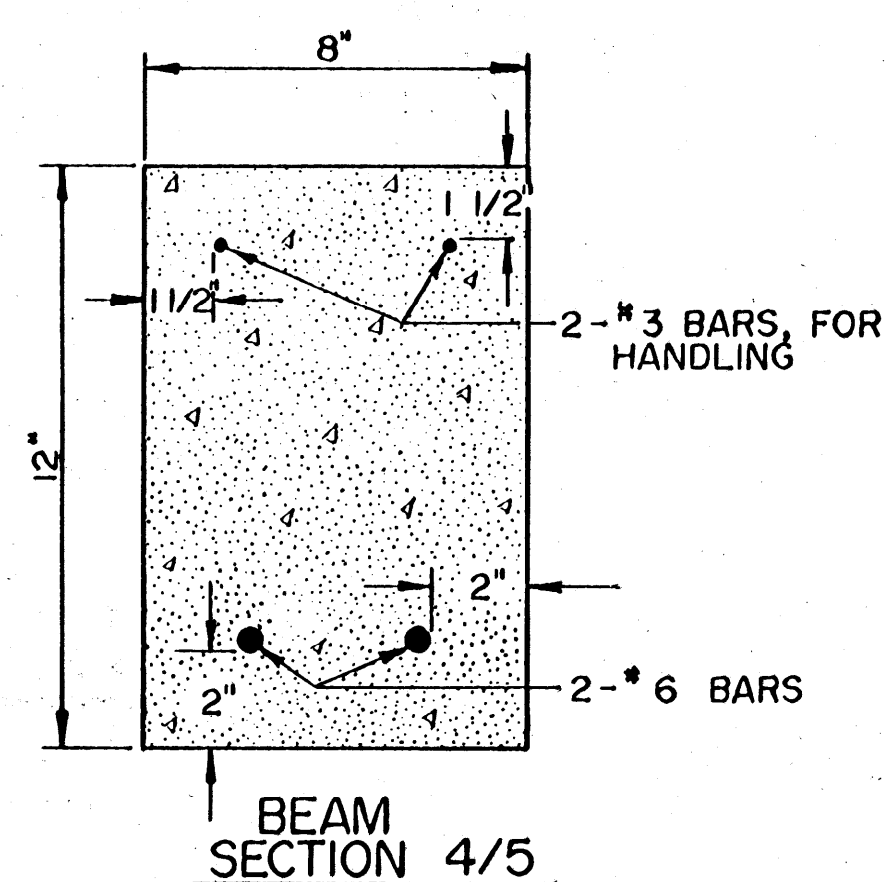
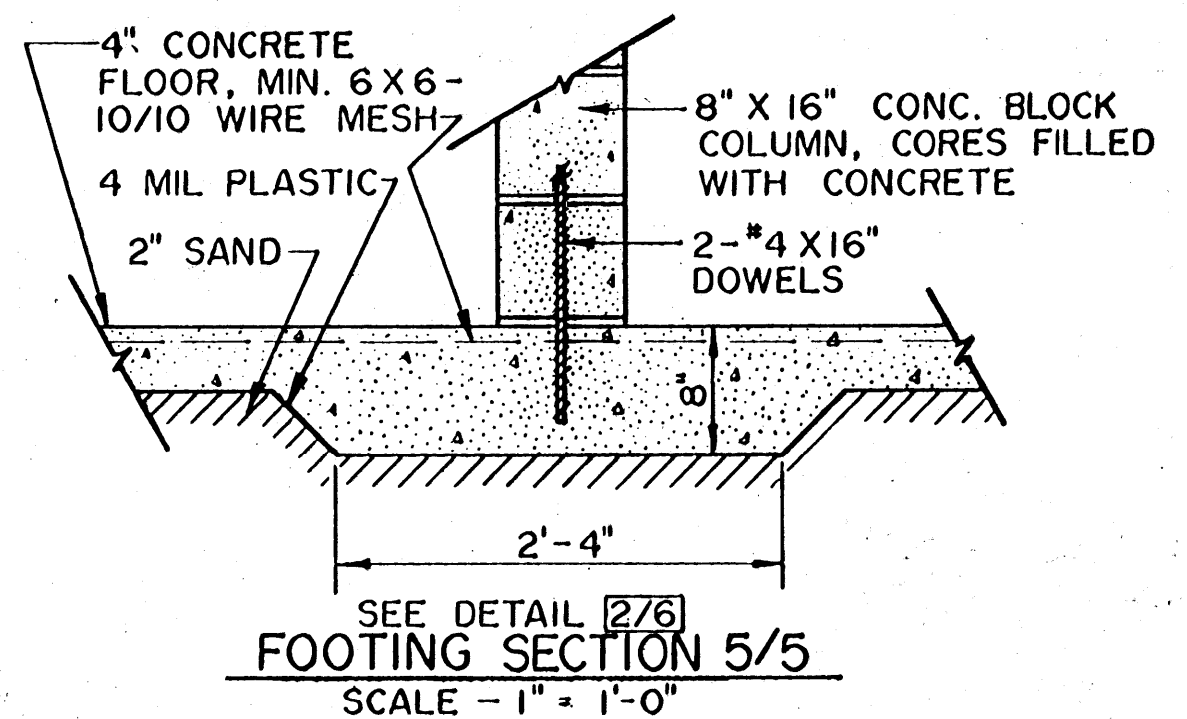
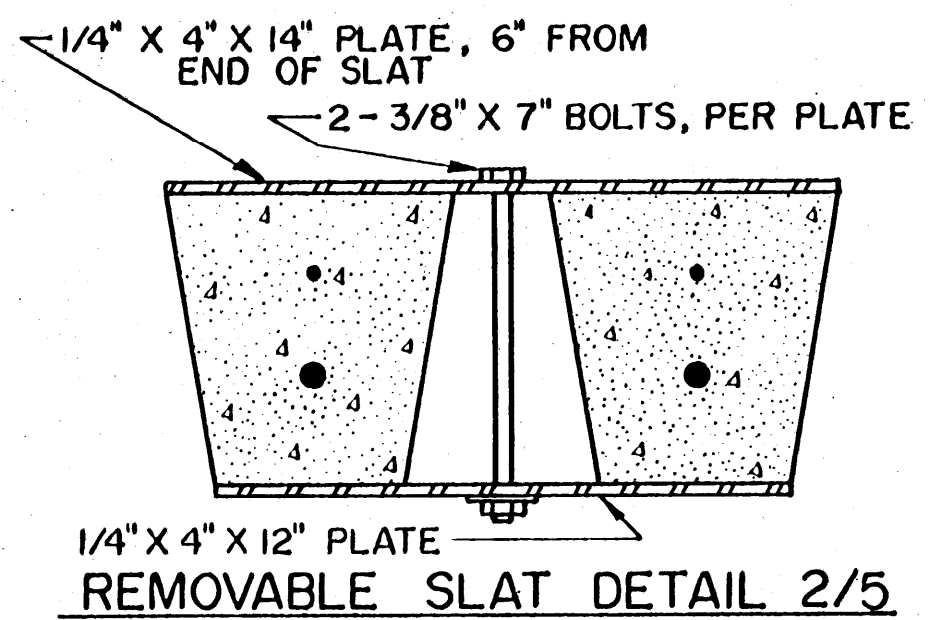
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FREE-STALL DAIRY BARN
 80 COW

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CROSS SECTION 1/5
SCALE - 1/4" = 1'-0"

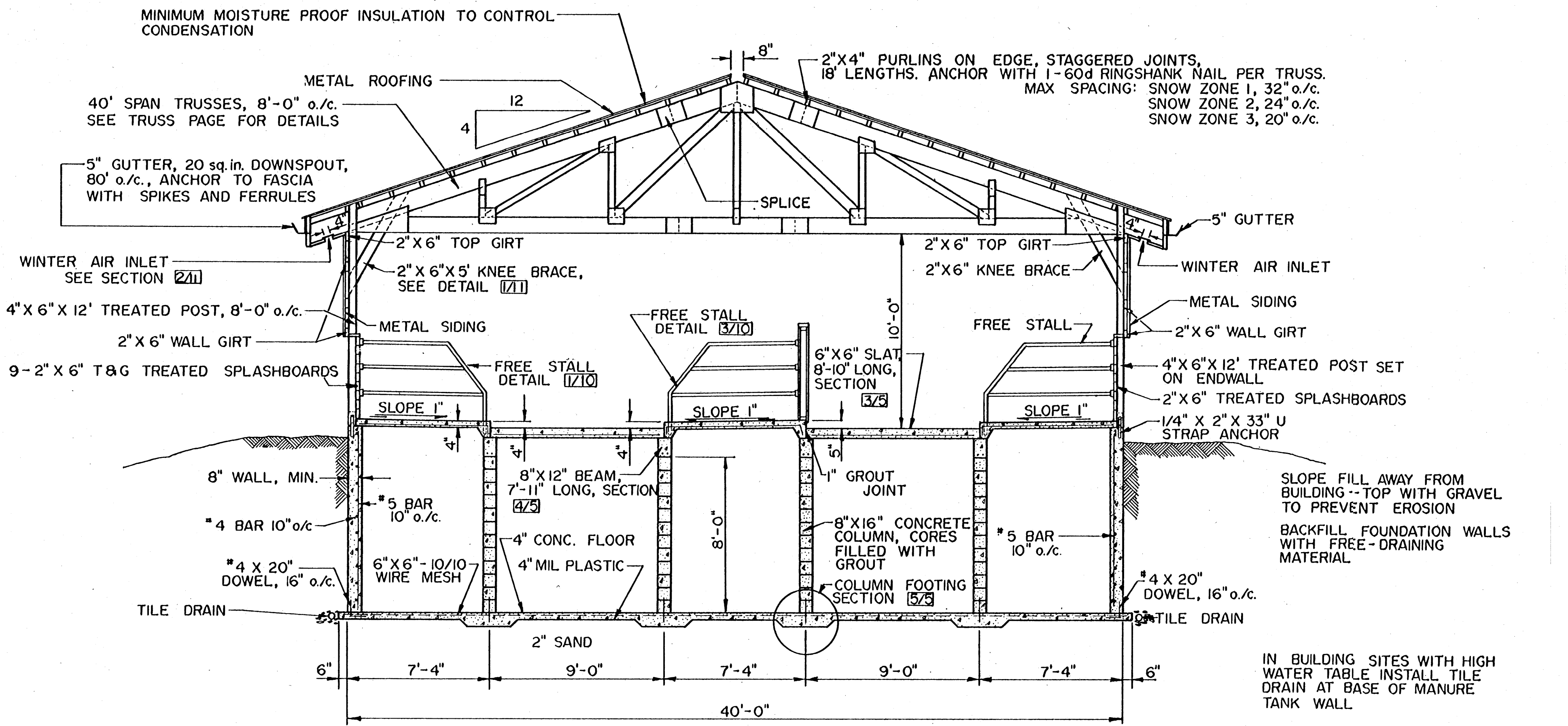


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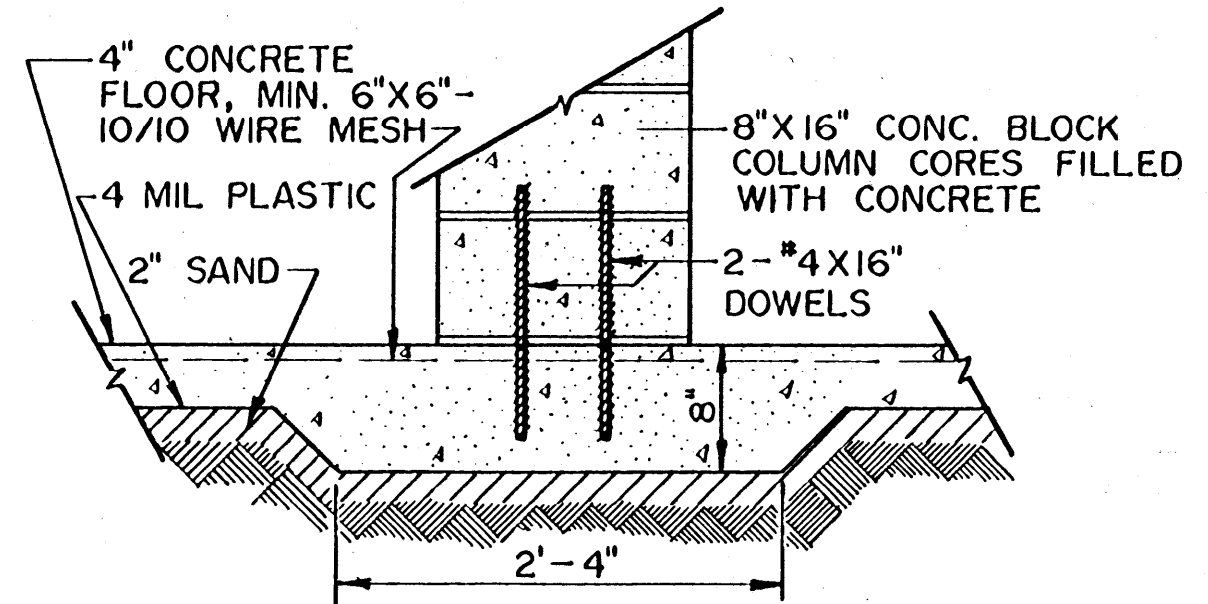
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FREE-STALL DAIRY BARN
80 COW

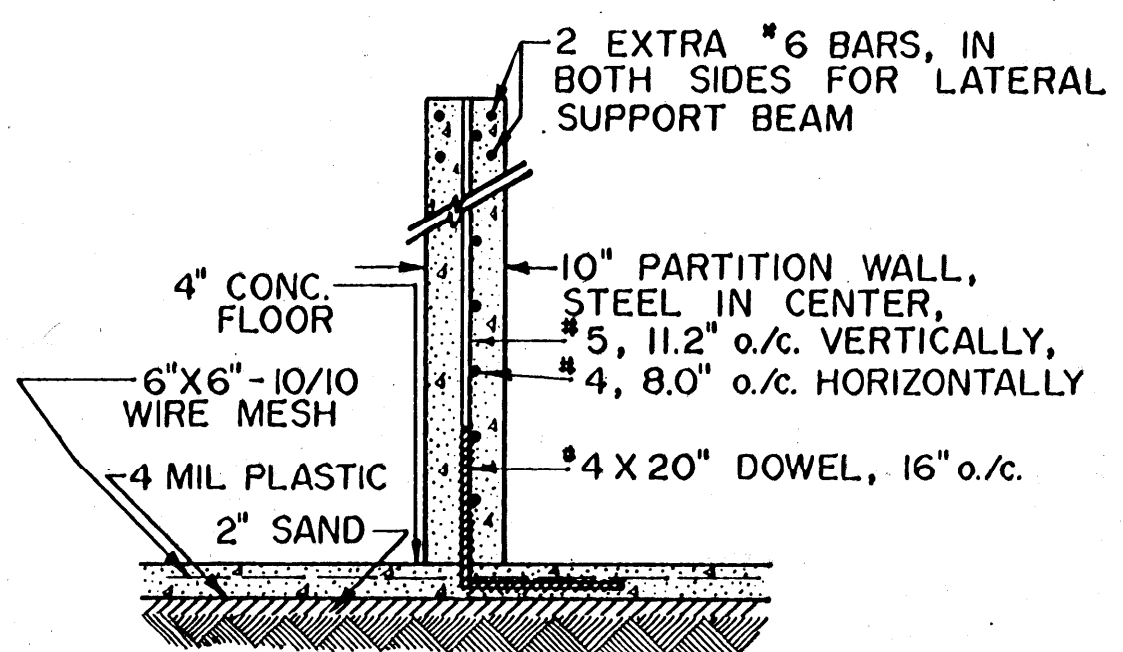
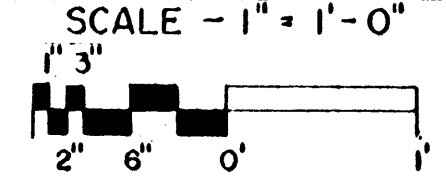
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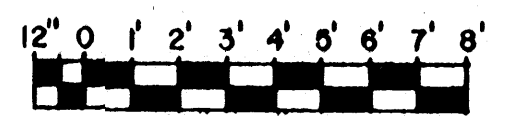
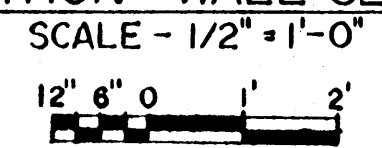
CROSS SECTION 1/6



FOOTING DETAIL 2/6

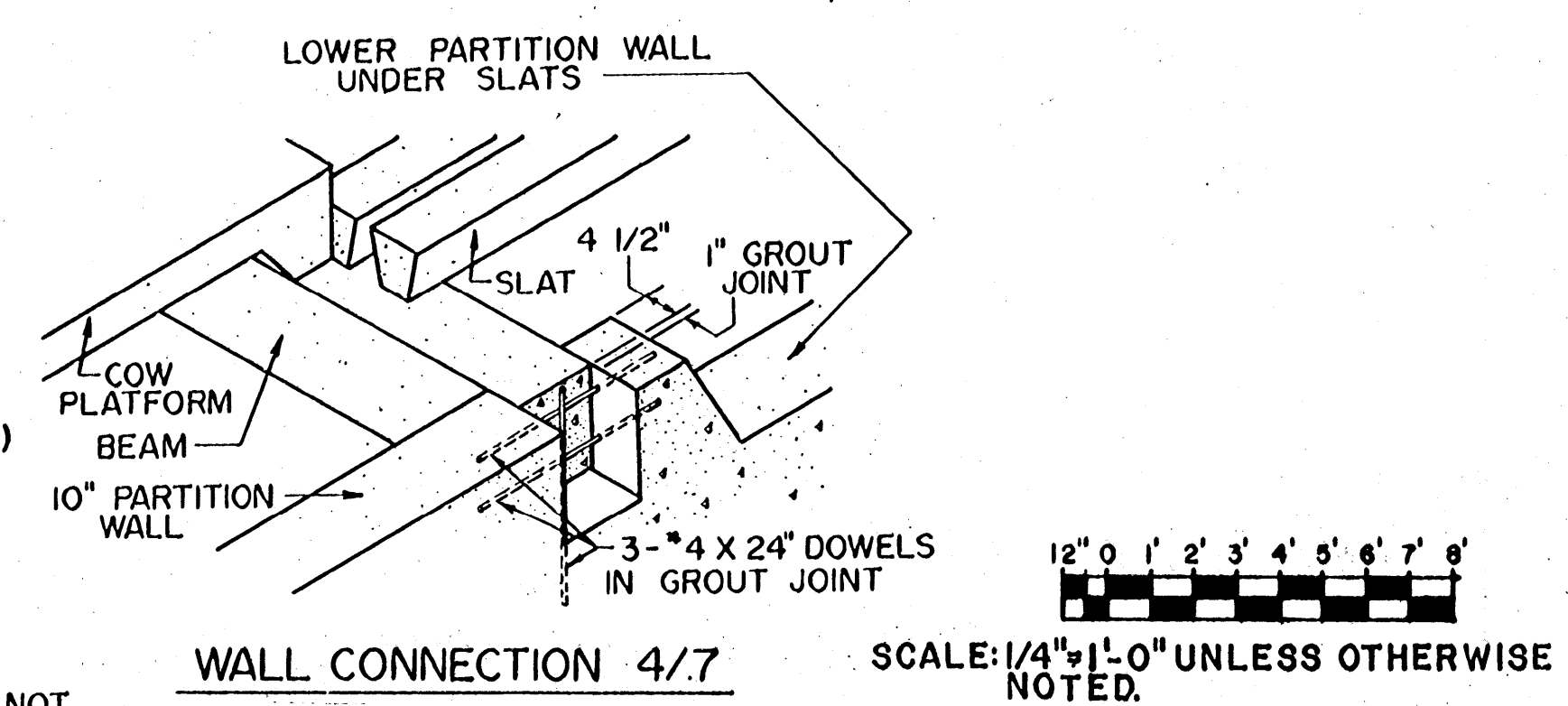
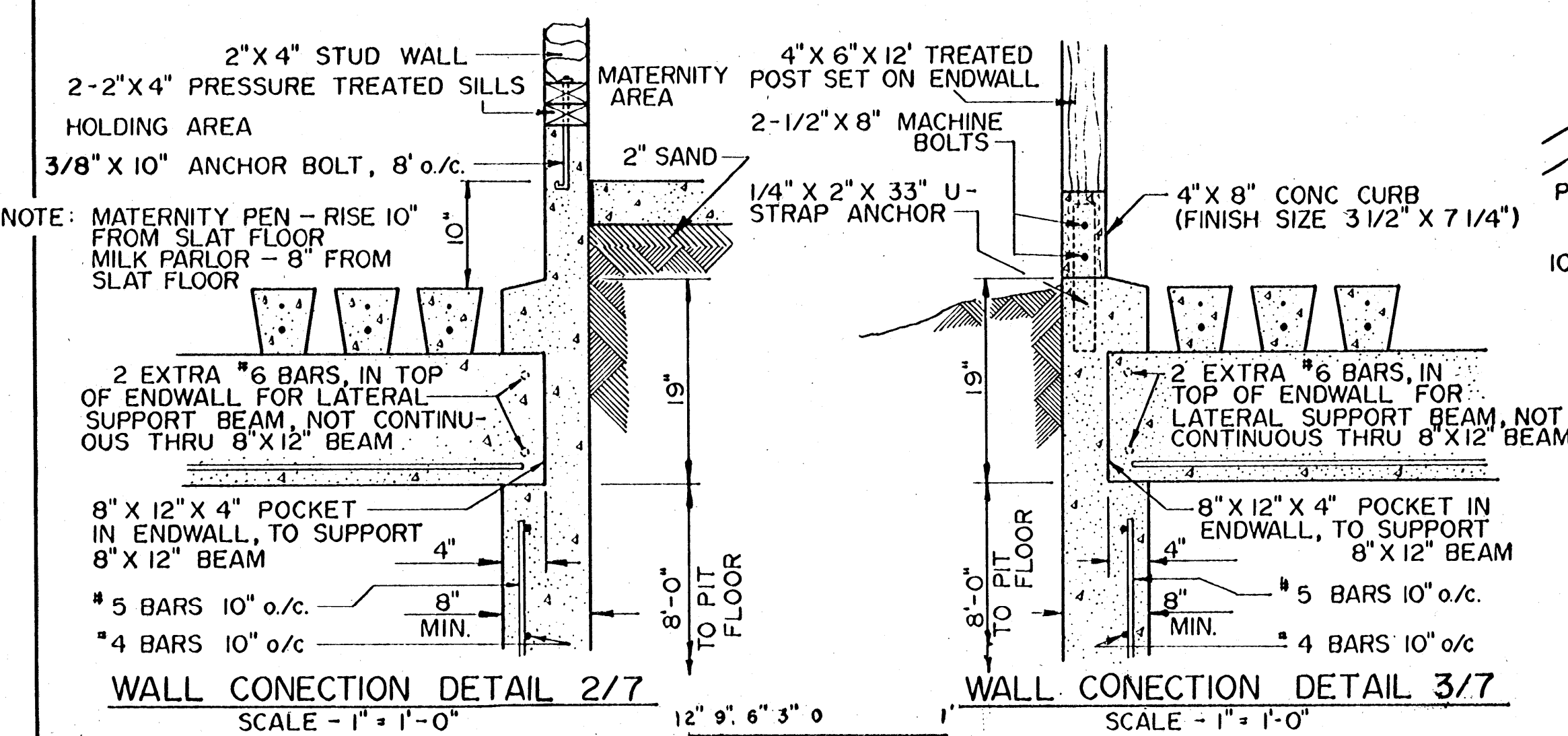
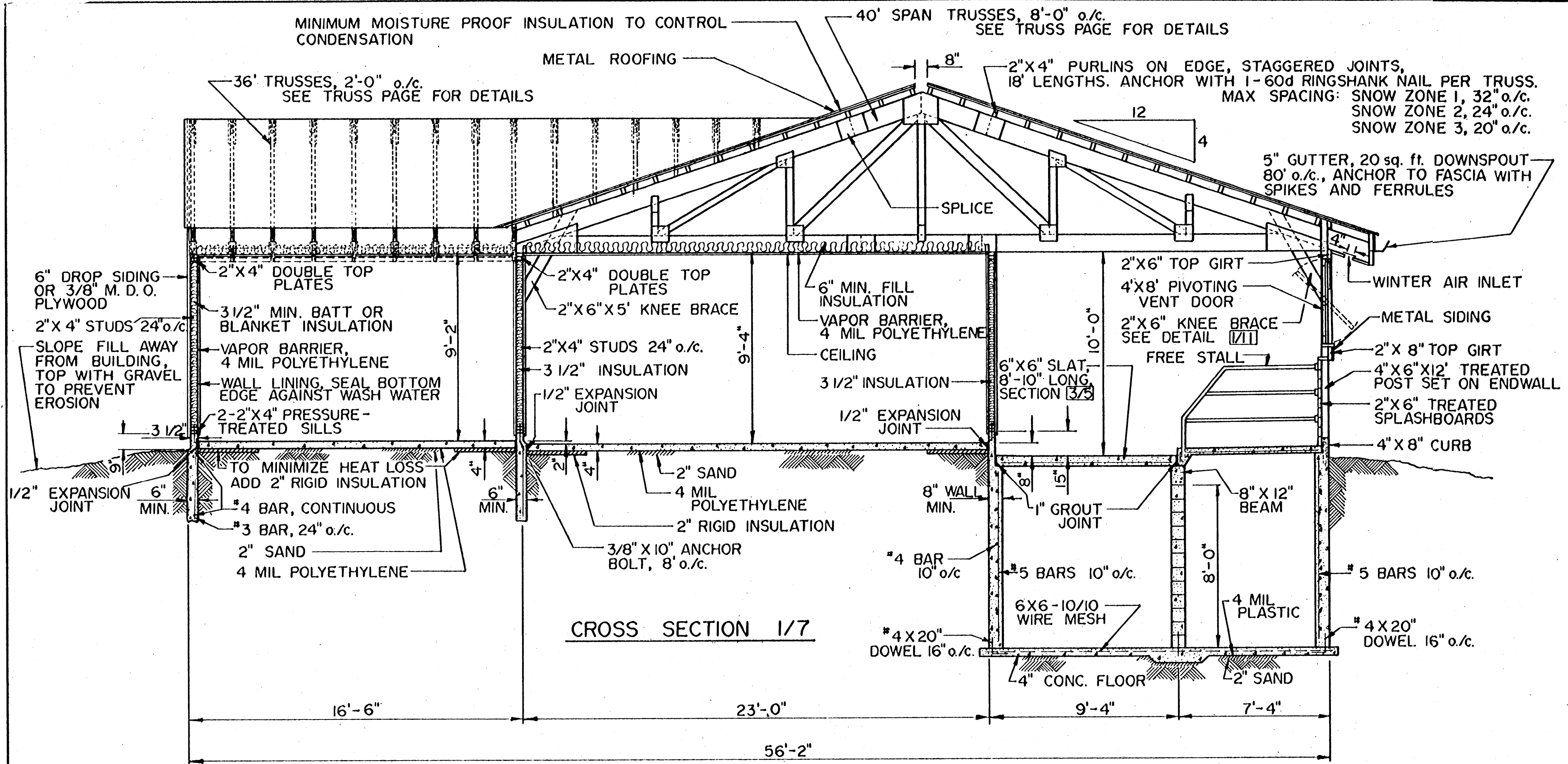


PARTITION WALL SECTION 3/6



SCALE: 1/4" = 1'-0" UNLESS OTHERWISE NOTED.

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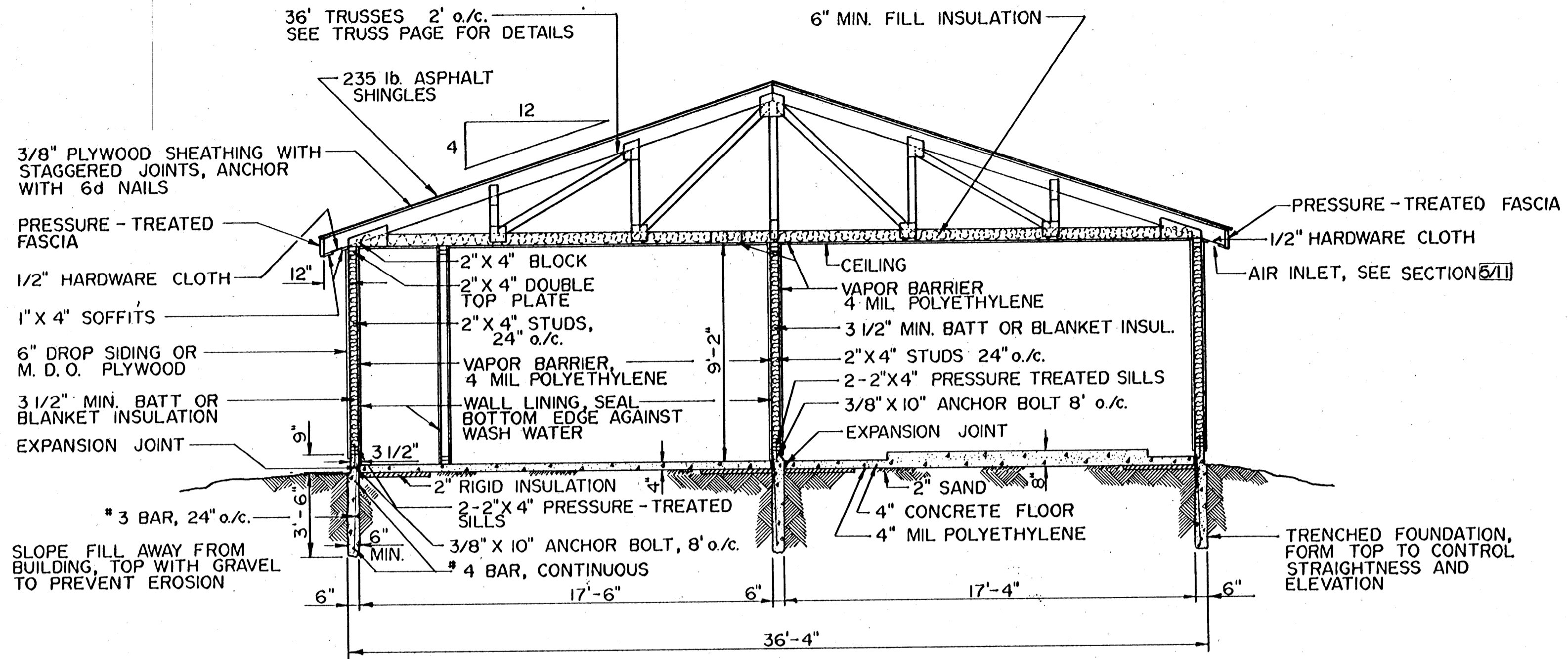


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WALL SECTION 1/8

WALL LINING ALTERNATIVES:

- 28 ga Galv Steel, with baked on paint, over 3/8" Plywood
- Structural Glazed Tile
- Fiberglass Reinforced Polyester Resin Board
- Fiberglass reinforced plastic surface laminated on 3/8" M.D.O. Plywood
- 3/8" M.D.O. Plywood, painted
- 3/8" Ext. Plywood, painted

CEILING ALTERNATIVES

- 3/8" M.D.O. Plywood, painted, staggered joints, anchor with 6d nails
 - Fiberglass reinforced plastic surface laminated on 3/8" Ext. Plywood, install similar to 3/8" M.D.O. Plywood
 - 0.024 in. Aluminum
 - 28 ga Galv Steel, with baked on paint
 - 3/8" Ext. Plywood, painted
- Use galv nails except with aluminum. Finish M.D.O. and Ext. Plywood with 2 coat acrylic-latex exterior paint system.

LUMBER SPECIFICATIONS

- Studs
Construction Grade (Doug Fir, Southern Yellow Pine or Hem Fir).
- Trusses
No. 1 (Doug Fir, Southern Yellow Pine, or Hem Fir). See truss page.
- Plywood
Roof Sheathing - 3/8" C-C Ext. Plywood
Siding - 3/8" C-C Ext. with medium density overlay.
- Sills and Fascia
Pressure Preservative Treated (Southern Yellow Pine or equivalent).
Creosote - 8 pcf, Penta - 0.40 pcf, ACC - 0.25 pcf, ACA or CCA (Type A or B) - 0.23 pcf.

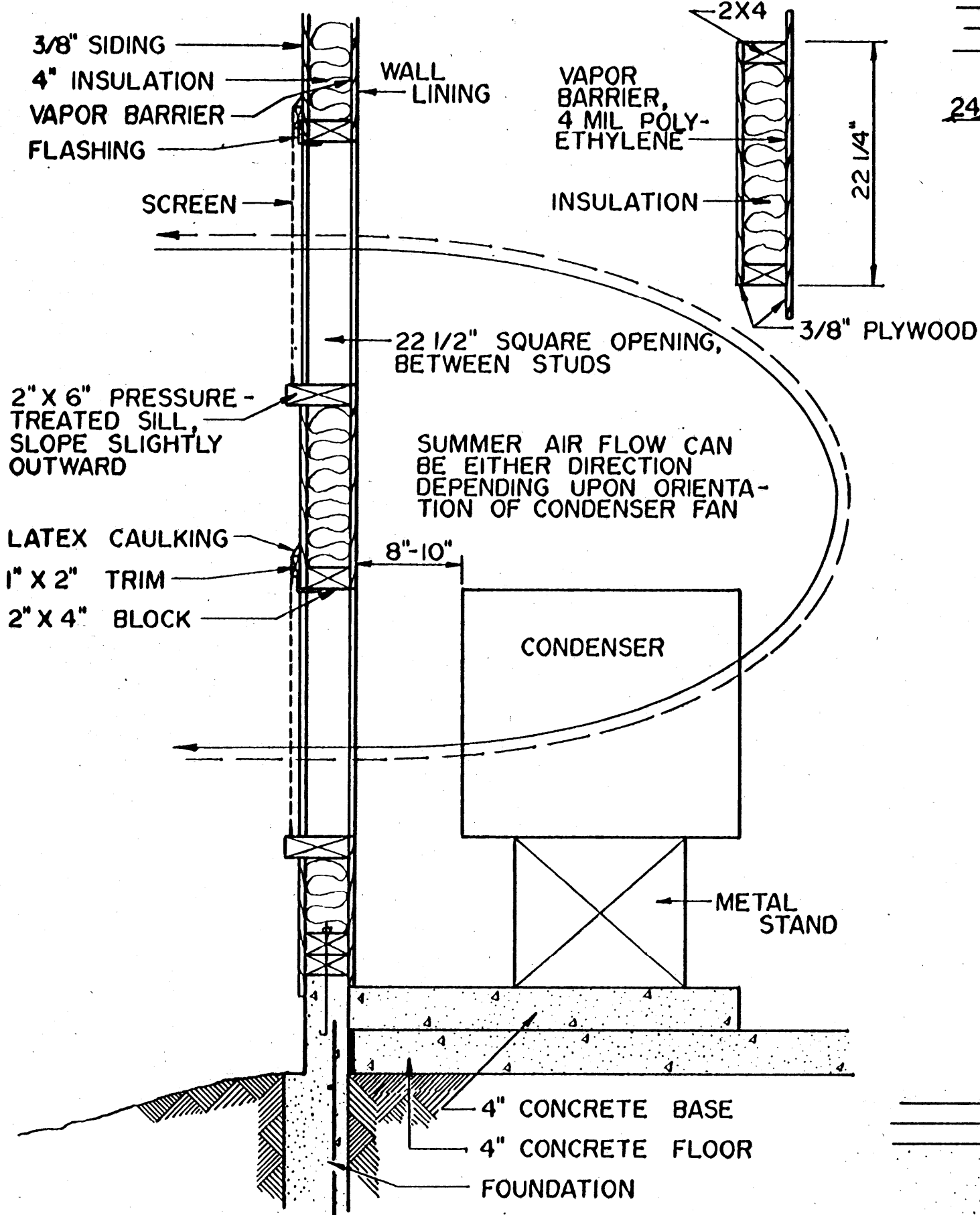


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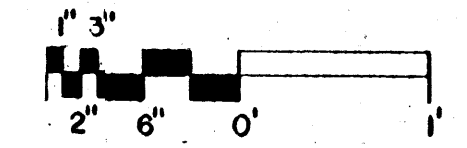
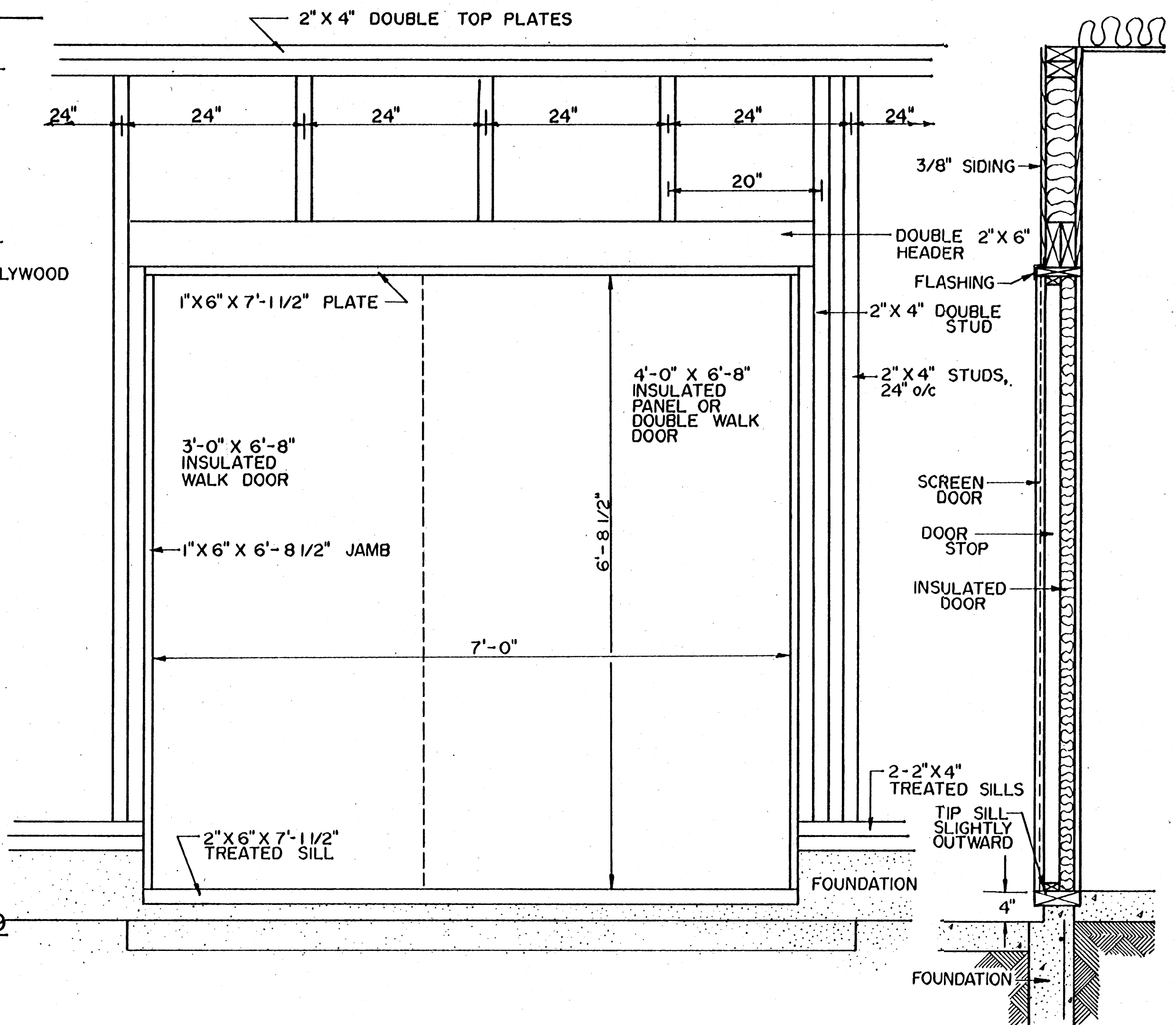
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FREE-STALL DAIRY BARN 80 COW		
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REMOVABLE WALL
PANEL 3/9

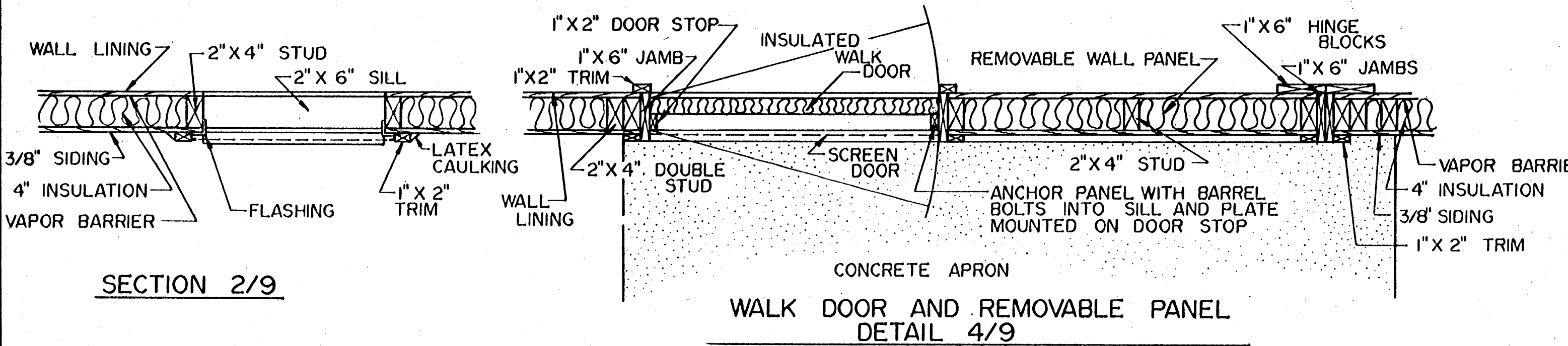
SCALE - 1" = 1'-0"



CONDENSER VENTILATION DETAIL 1/9



SCALE: 1" = 1'-0" UNLESS OTHERWISE NOTED.



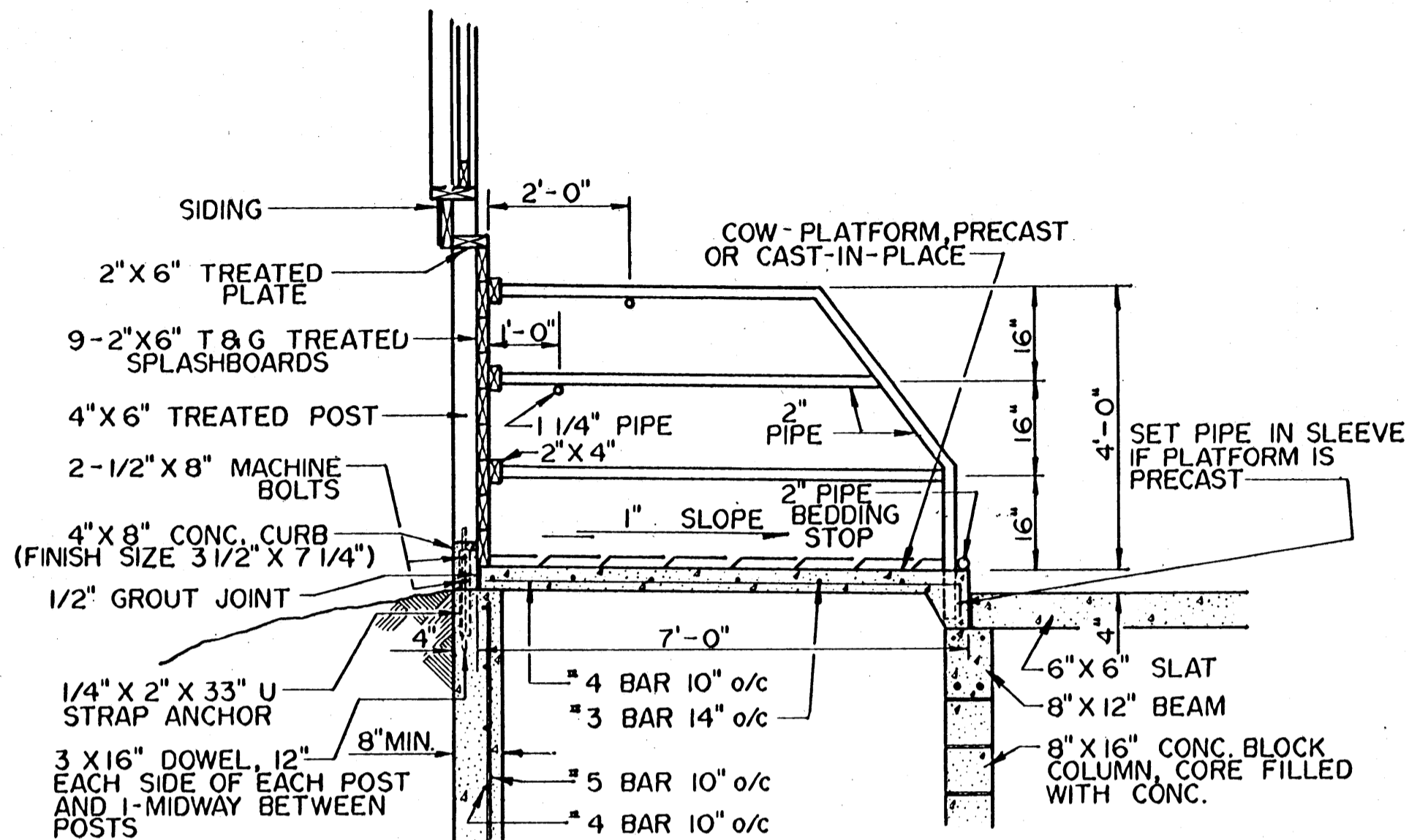
SECTION 2/9

WALK DOOR AND REMOVABLE PANEL
DETAIL 4/9

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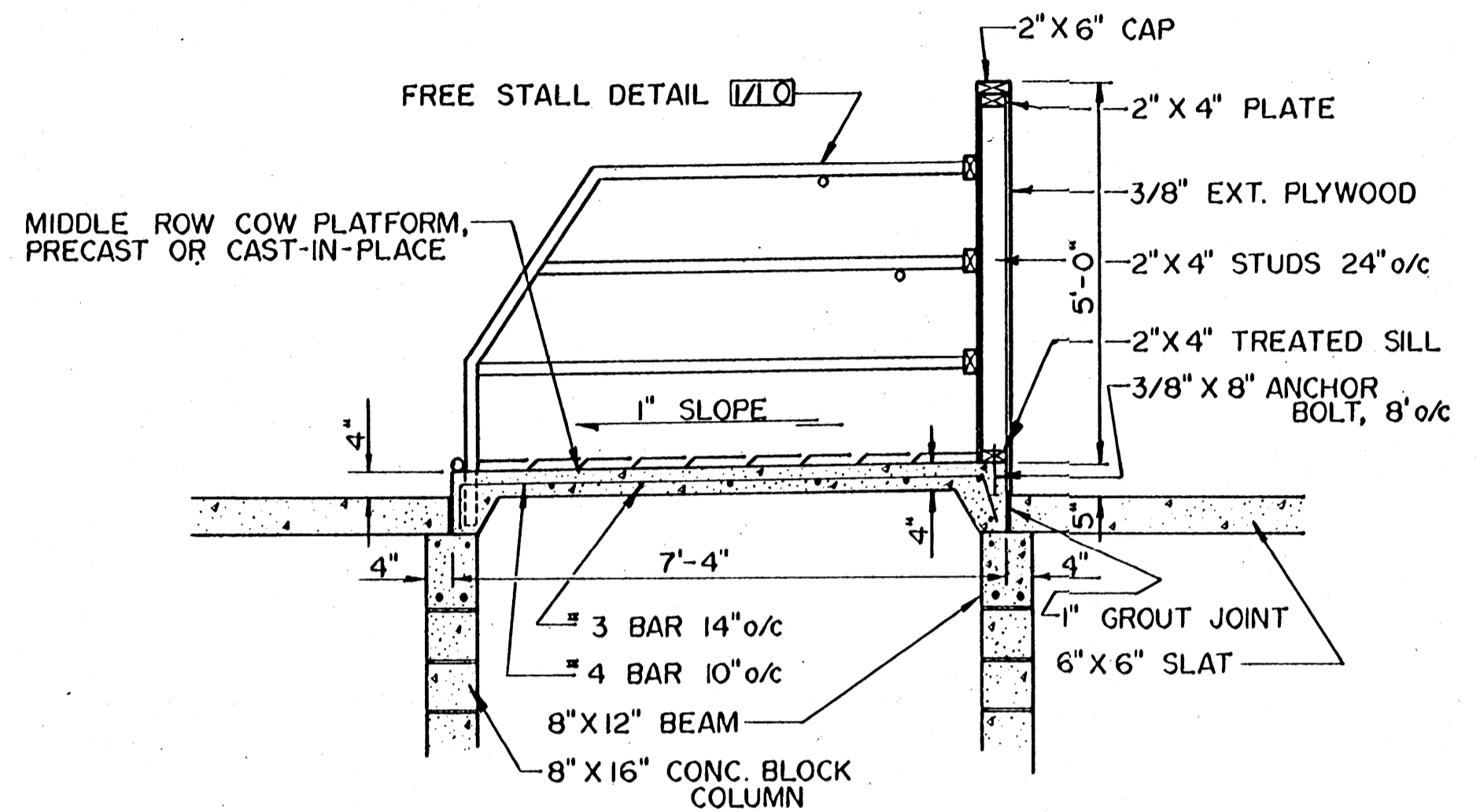
FREE-STALL DAIRY BARN
80 COW

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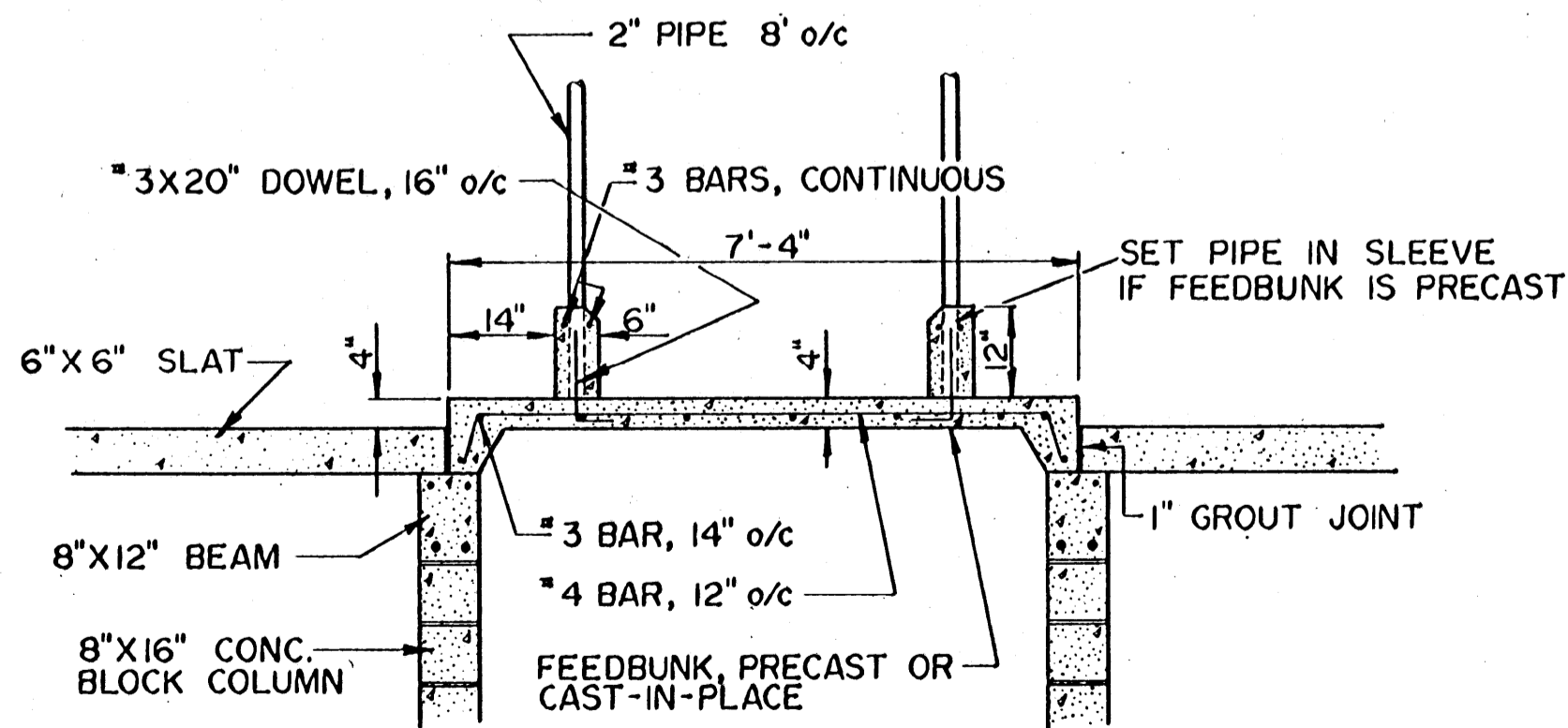


FREE STALL AND COW PLATFORM 1/10

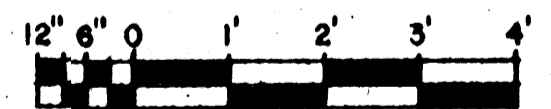
Install 1 1/4" pipe training rails if cows turn around in stalls or deposit manure at back of stall. 2 rails will force cow to move back as it gets up so its shoulders can't get caught under the rails.



MIDDLE ROW COW PLATFORM 3/10



FEEDBUNK DETAIL 2/10

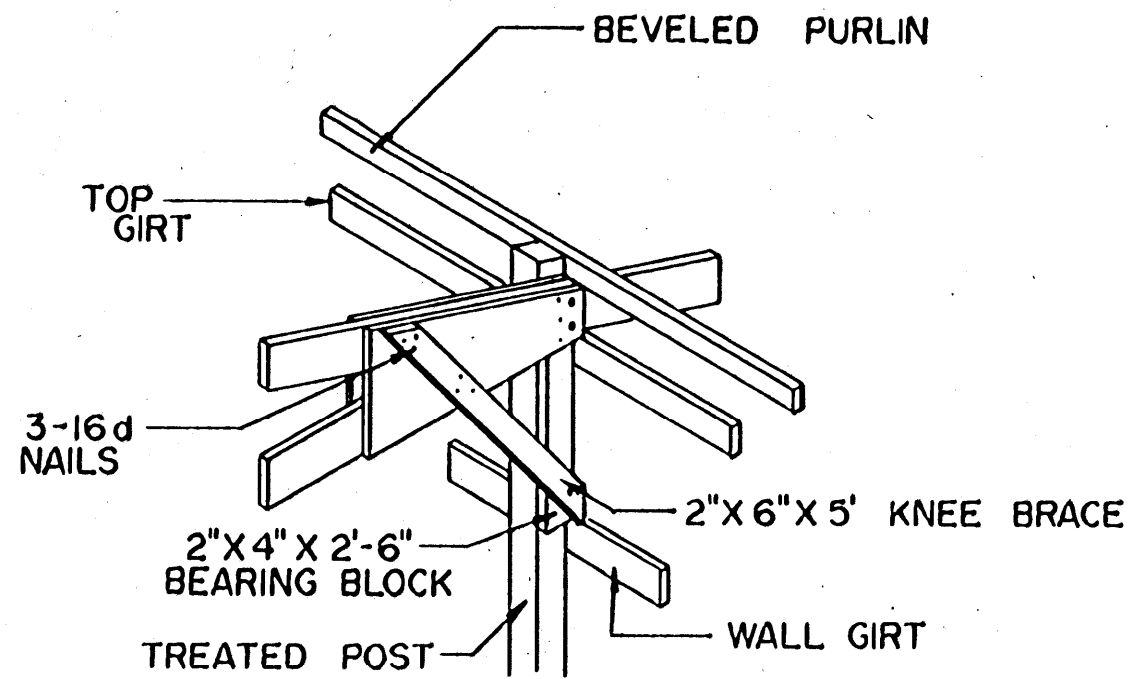


SCALE: 1/2" = 1'-0" UNLESS OTHERWISE NOTED.

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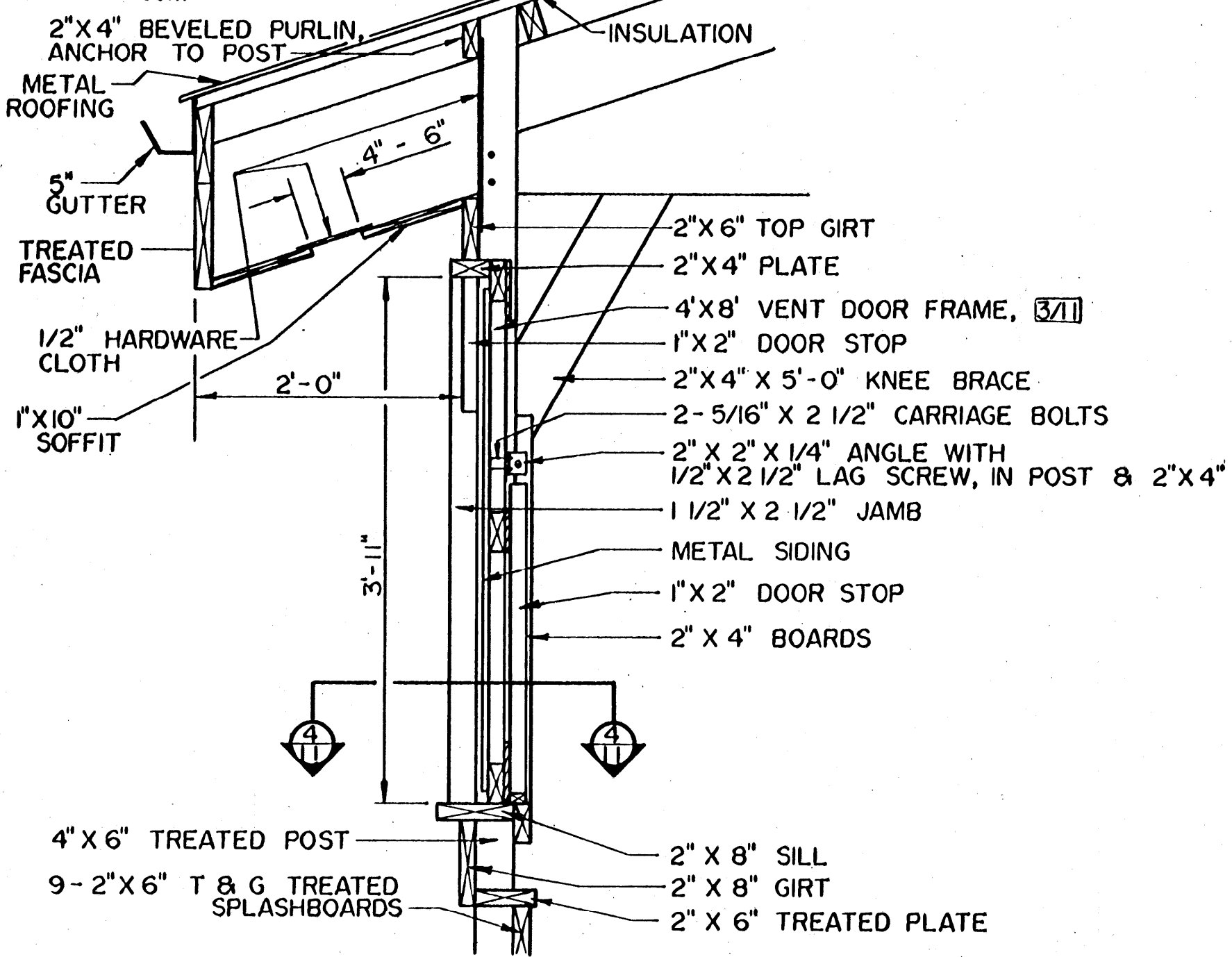
FREE-STALL DAIRY BARN
 80 COW

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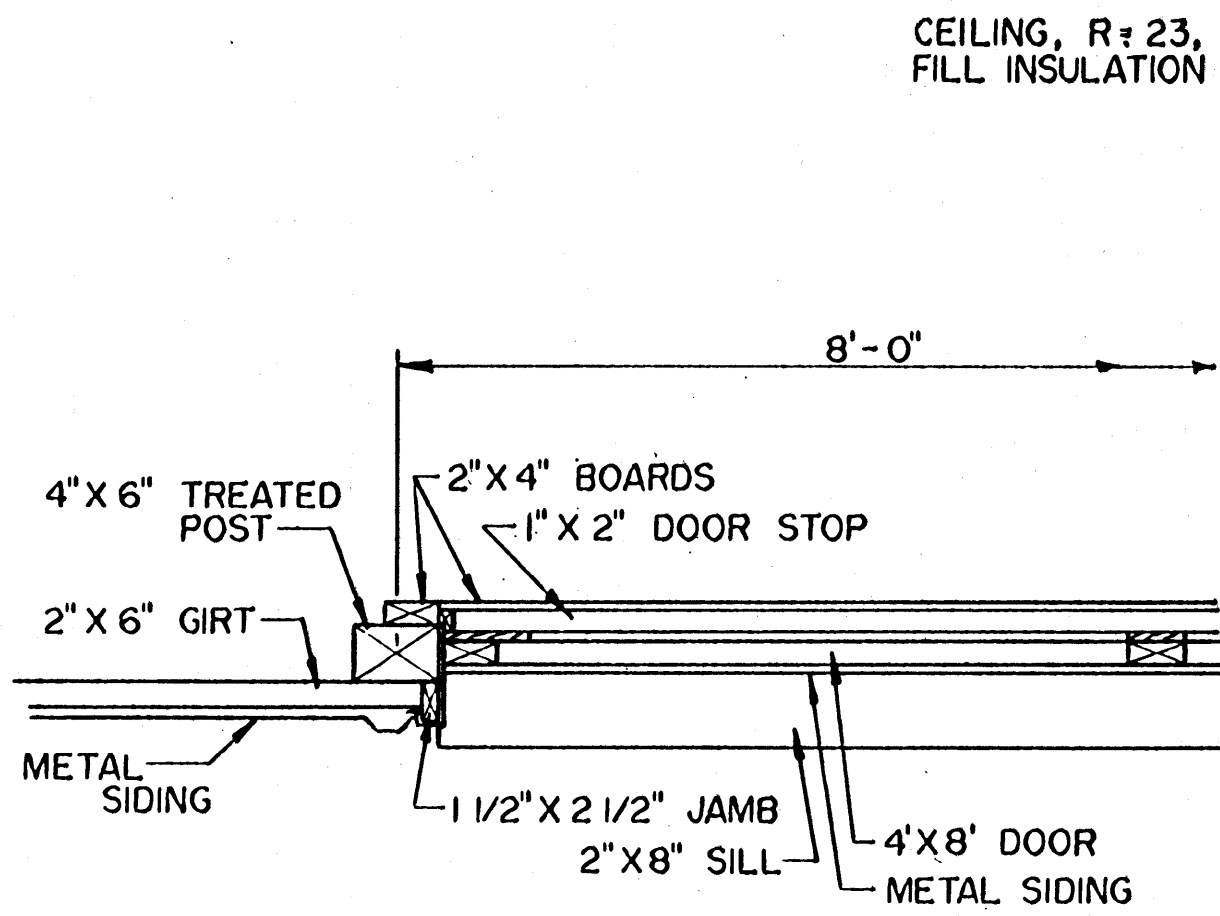
KNEE BRACE DETAIL 1/1

NOTE: Post is not notched for truss. Truss to post connection: 2-1/2" bolts + 3-30d ringshank nails.
 Top girt to post connection: 2-30d ringshank nails.
 Bearing block to post connection: 1-1/2" bolt + 3-30d ringshank nails.
 Knee brace to bearing block to post connection: 1-1/2" bolt.

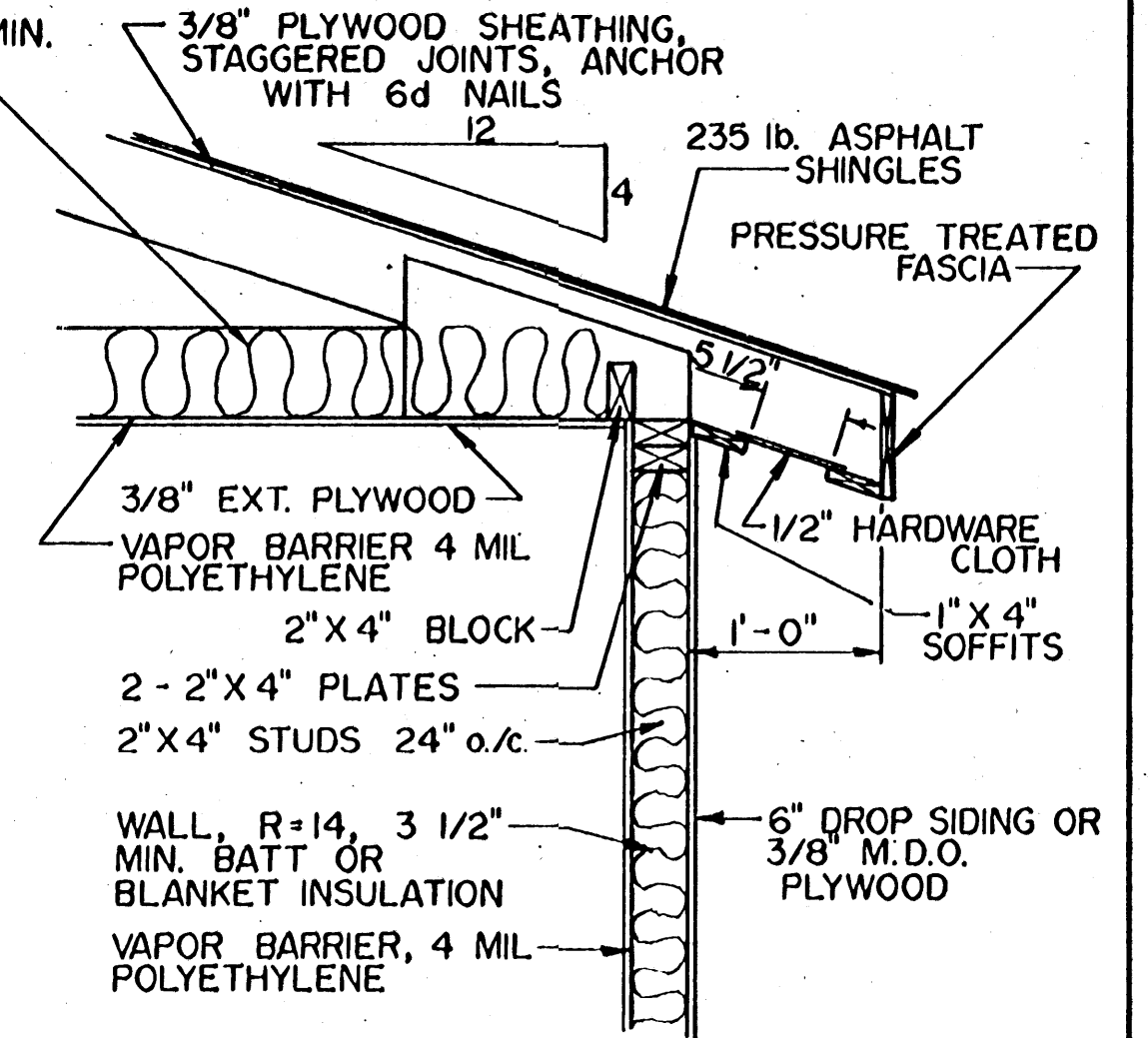


WALL SECTION 2/1

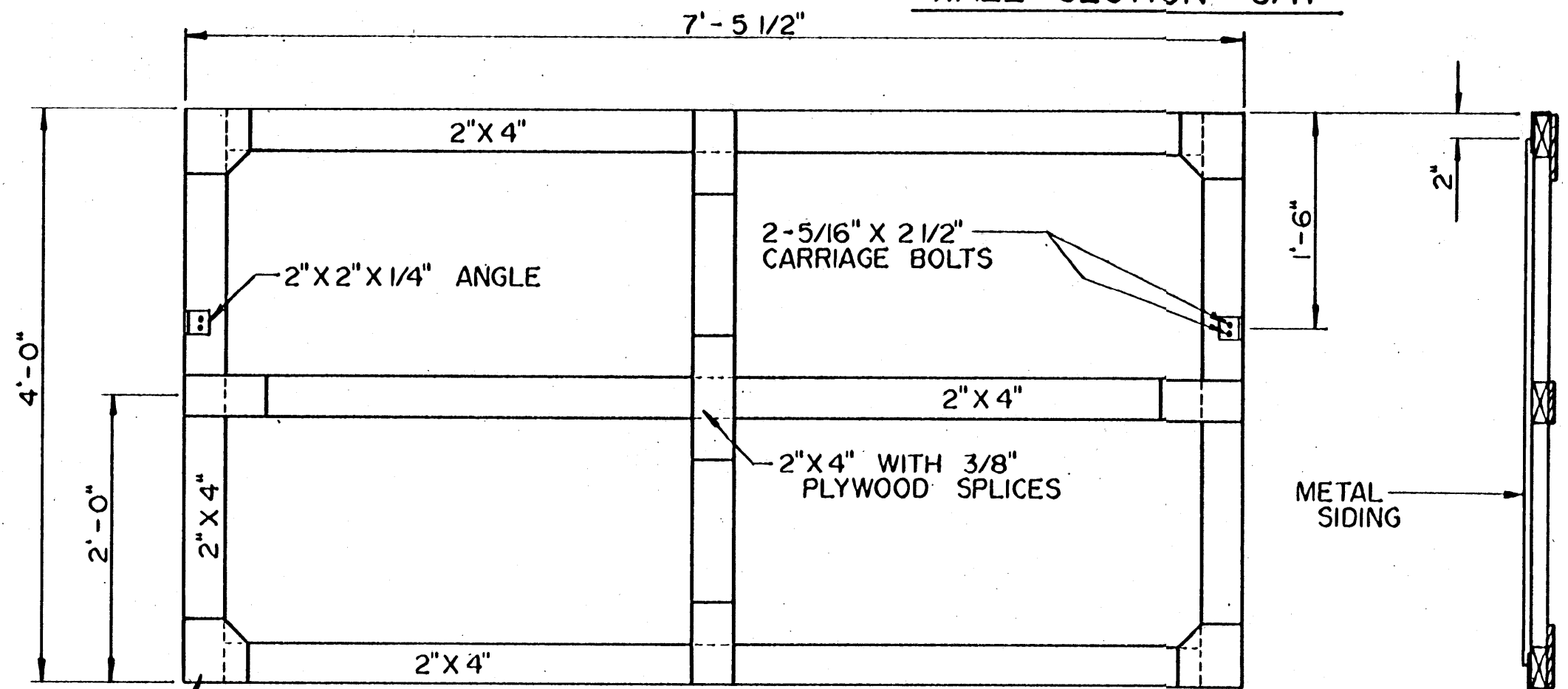
Hold vent door open with a light metal chain from the vent door frame to an eye hook in the 2" x 4" below door.



JAMB SECTION 4/1



WALL SECTION 5/1



4' X 8' VENT DOOR FRAME 3/1

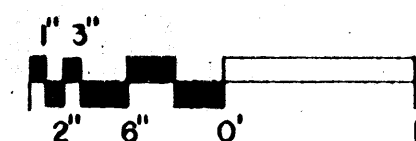
3/8" Exterior Plywood Gussets, nailed and glued, if 3/8" Exterior C-C plywood is used for covering, delete the gussets.

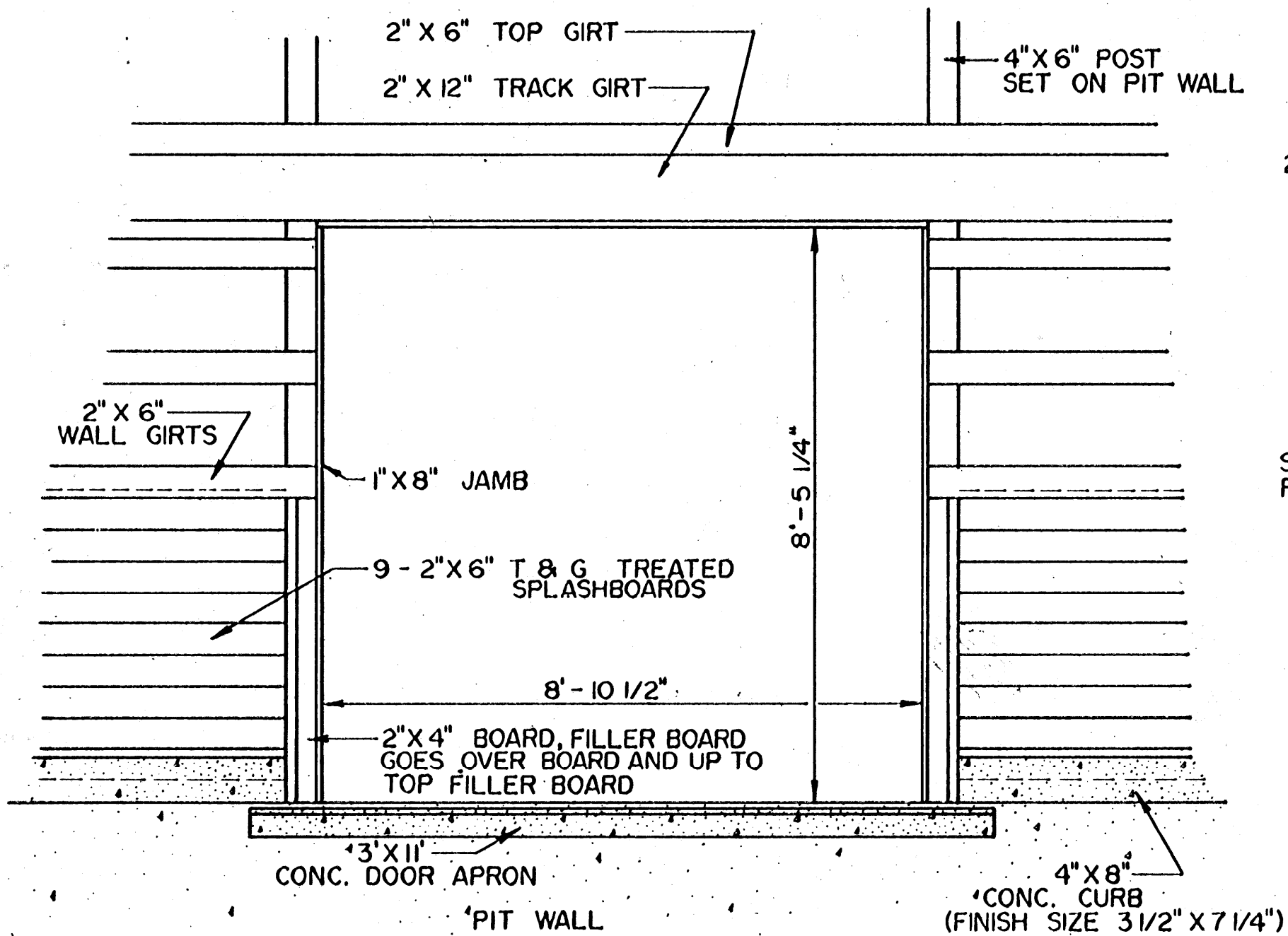
SCALE: 1"=1'-0" UNLESS OTHERWISE NOTED.

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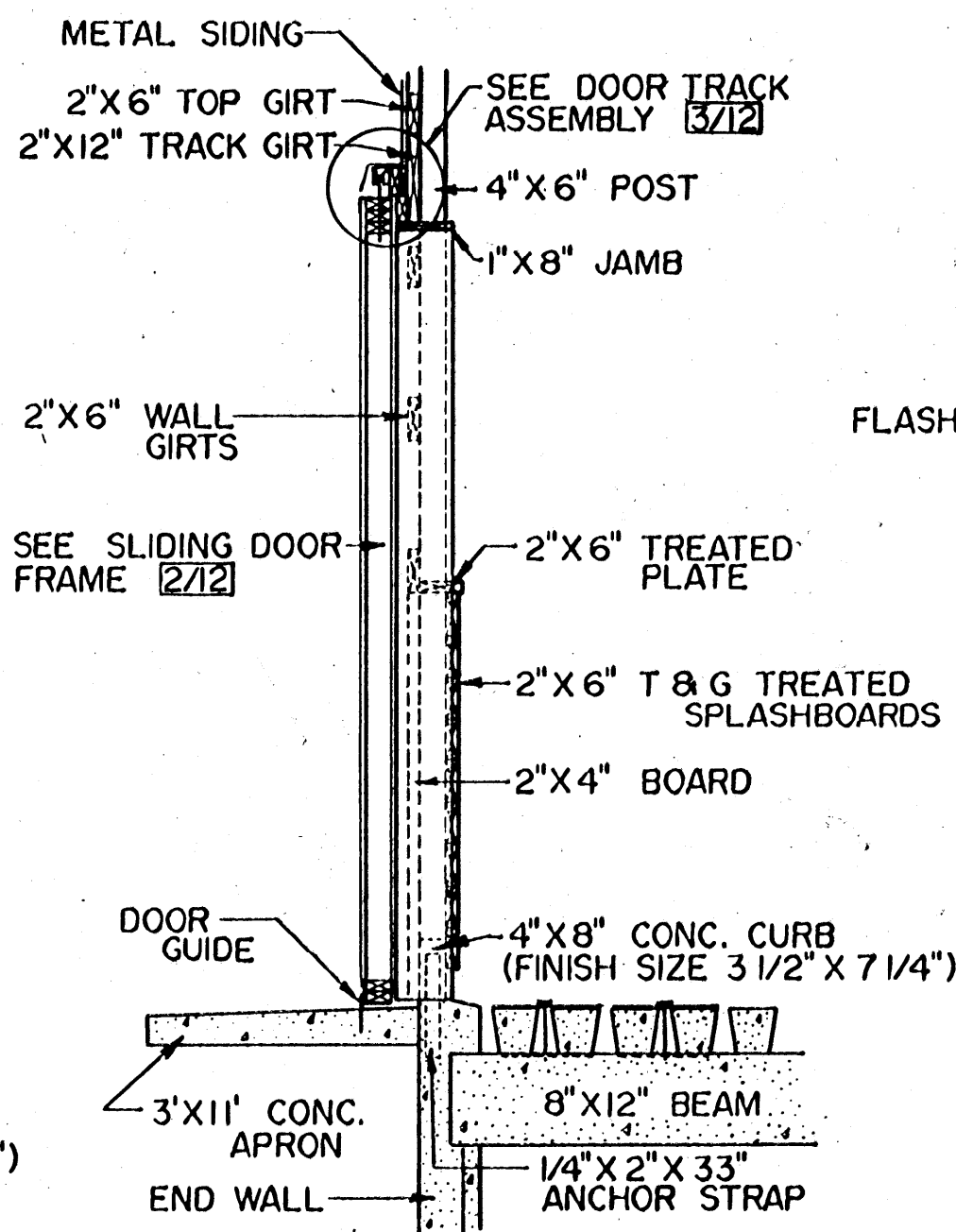
FREE-STALL DAIRY BARN
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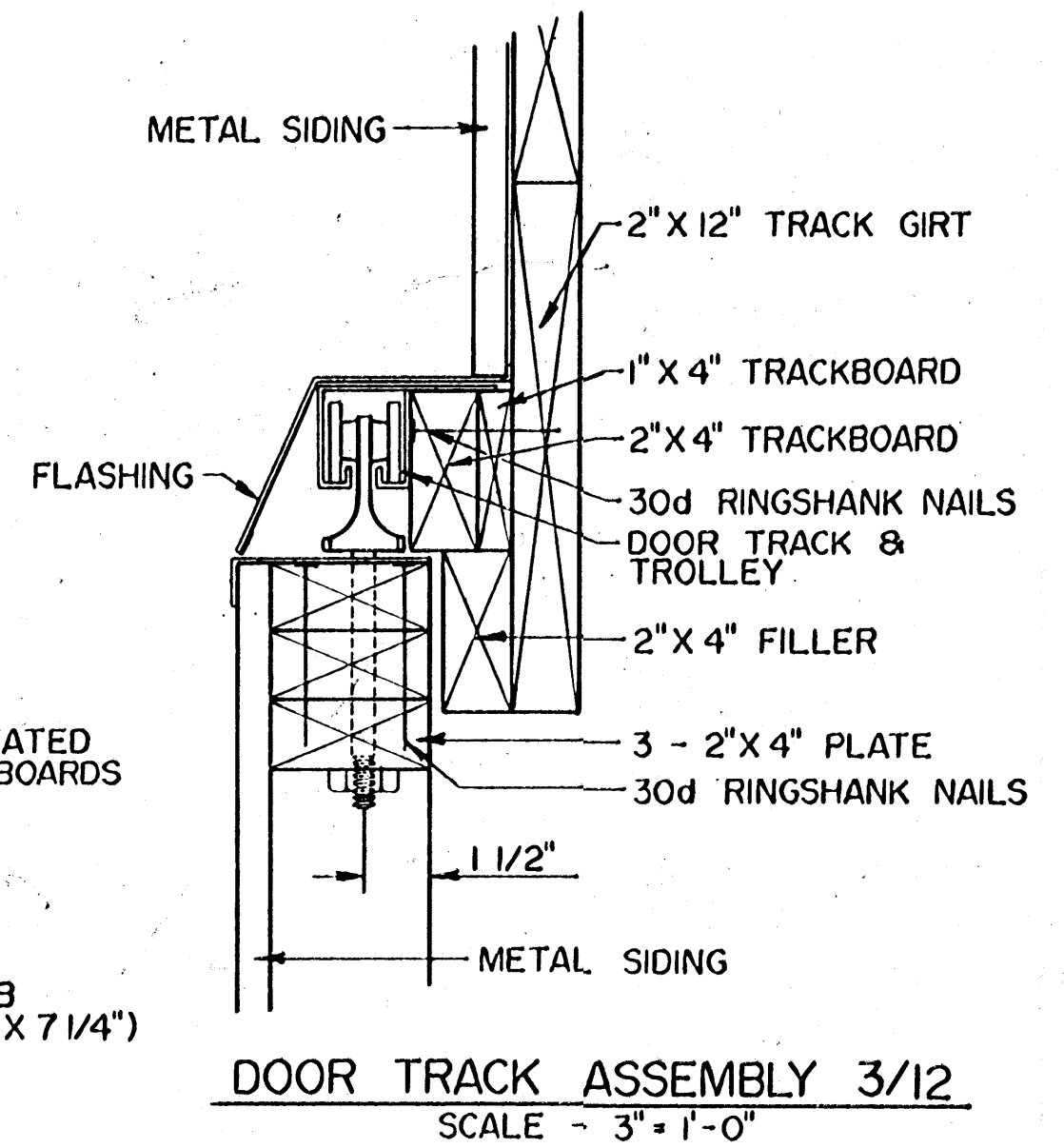




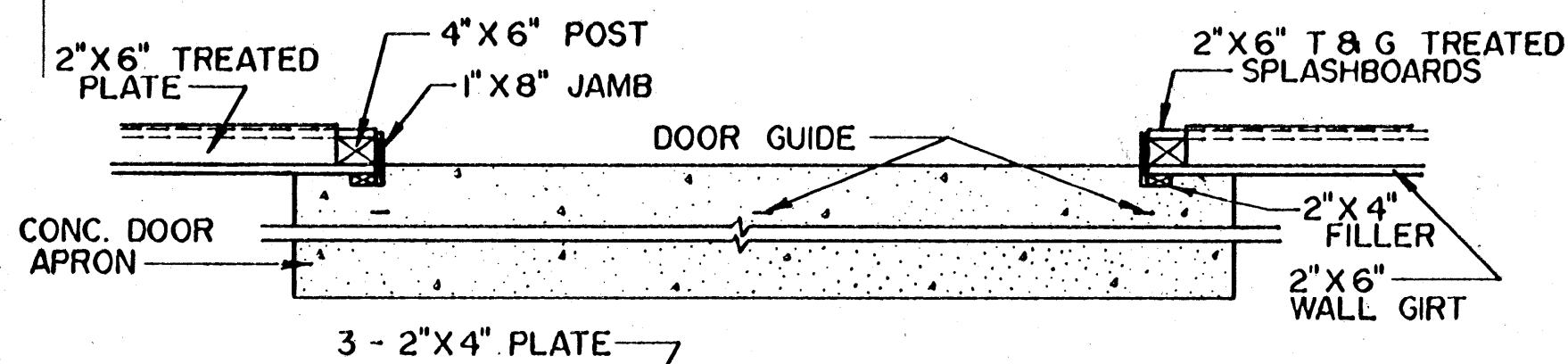
SLIDING DOOR FRAMING 1/12



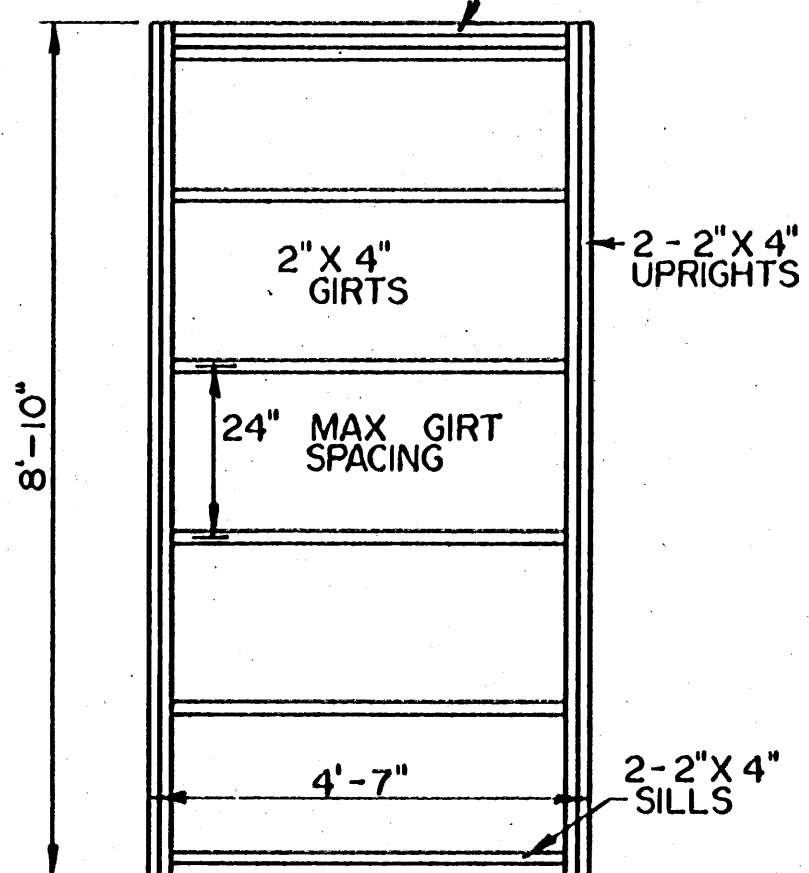
UPRIGHT SECTION 4/12
SCALE - 3" = 1'-0"



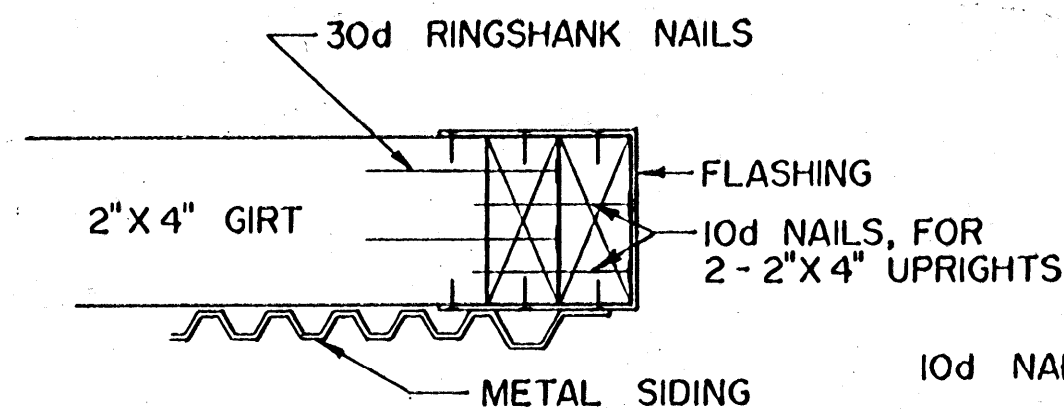
DOOR TRACK ASSEMBLY 3/12
SCALE - 3" = 1'-0"



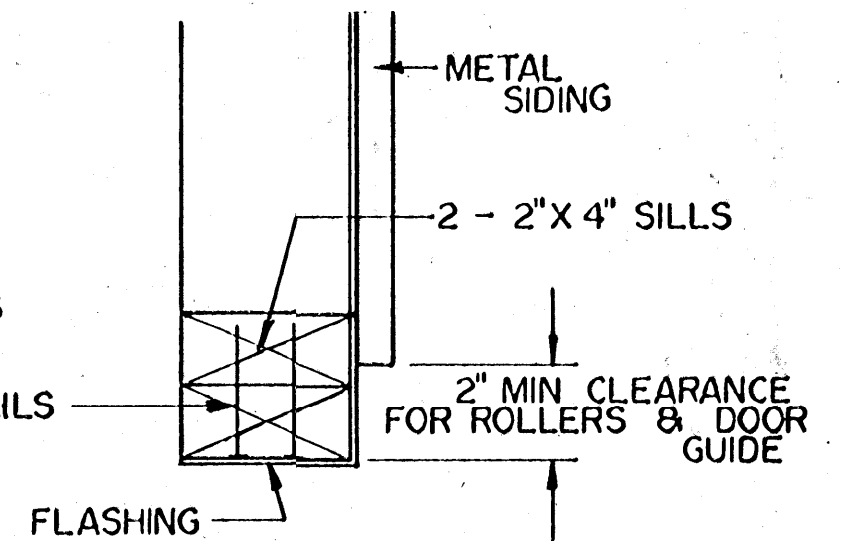
3 - 2"x4" PLATE



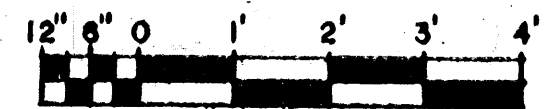
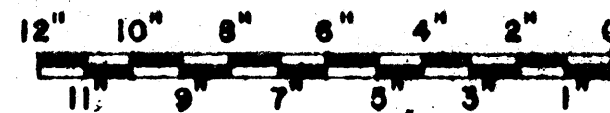
SLIDING DOOR FRAME 2/12



UPRIGHT SECTION 4/12
SCALE - 3" = 1'-0"



SILL SECTION 5/12
SCALE - 3" = 1'-0"



SCALE: 1/2" = 1'-0" UNLESS OTHERWISE NOTED.

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FREE-STALL DAIRY BARN
 80 COW

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