

1 WALL FOOTING SIZES & REINFORCING

STUD WALL HEIGHT ft.	SOIL BEARING PRESSURE psf	FOOTING WIDTH (1)	FOOTING DEPTH (2)	FOOTING AREA sq. ft.	FOOTING PERIMETER ft.
10	3,000	12	12	144	48
12	3,000	12	12	144	48
14	3,000	12	12	144	48
16	3,000	12	12	144	48
18	3,000	12	12	144	48

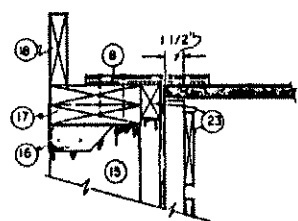
2 WOOD STUD SIZES

STUD WALL HEIGHT ft.	SOIL BEARING PRESSURE psf	PLATE FORCE (1)	PLATE AREA (2)	PLATE PERIMETER (3)	STUD SPACING (4)	No. 1 STUDS	No. 2 STUDS	No. 3 STUDS	No. 4 STUDS
10	300	2.8	1.00	3.14	12	1	1	1	1
12	300	3.4	1.20	3.77	12	1	1	1	1
14	300	4.0	1.40	4.40	12	1	1	1	1
16	300	4.6	1.60	5.03	12	1	1	1	1
18	300	5.2	1.80	5.66	12	1	1	1	1

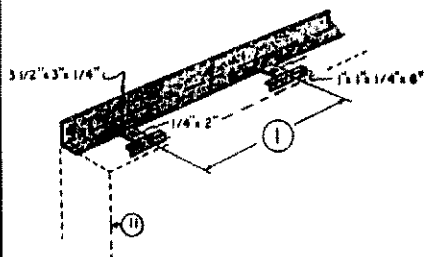
3 NAILING TABLE

STUD WALL HEIGHT ft.	STUD SPACING in.	No. 24 16 D GALV. SHEET PILING NAILS @ 12 IN. TO PLATE CONNECTION	No. 24 16 D GALV. SHEET PILING NAILS TO PLATE CONNECTION
10	12	2	2
12	12	2	2
14	12	2	2
16	12	2	2
18	12	2	2

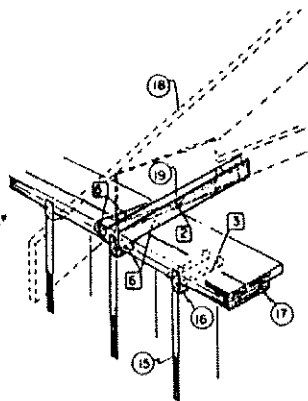
- Table of footing sizes and reinforcing
- Table of wood stud sizes examine no vibration such as near railroad tracks that would induce additional settling as vegetation dry. Closer spacing of studs may be required for such situations.
- Nailing table, stud to plate and truss to plate
- Plywood ceiling at endwall
- Alternative vertical exterior metal siding on 2 x 4; 4 strapping 8 1/2" O.C. max.
- 36" x 4" deep coarse gravel splash pad
- Concrete floor, on compacted gravel or sand fill, 6/8 wire mesh
- 3/4" plywood blocking between trusses, 3 1/2" spiral nails to 1/2" @ same spacing as adjacent ceiling screws
- Welded steel anchor continuous, painted with rustproof primer; for 1/2" x 1'-0" anchor bolt spacing, see (1). Note: Commercial heavy duty galvanized fasteners are a better alternative. They are available at less cost and would require less labor
- Footing width, see table (1)
- Concrete foundation wall, width = stud size + 2"; vertical control joints @ 30'-0" o.c.
- No. 5 rebar, see (1) for spacing
- 2" rigid, water-resistant insulation (i.e. polystyrene) with a W.B. resistance toward the outside and an abrasion resistant outside protective sheet of material.
- 2 x 4 stud width, CCA pressure-treated sill anchor and concrete foundation with 5/8" bolts spaced as shown on (1)
- studs, see (2) for size and spacing
- heavy duty joint hanger at each stud to plate connection, nail as per (3)
- Bottom plate same size as studs, top plate 4" wider, joints staggered 8'-0" o.c.
- roof trusses @ 4'-0" or less, increase lower chord for 'Plate Force' in (3)
- 20 ga. x 4" galv. pre-bent steel strap, number of 1 1/2" galv. large-head roofing nails to framing indicated as (4). Note: Commercial connectors may be used.
- 2 x 4 pressure-treated nailer for (4) plywood spacers @ stud
- 16'-0" long girts @ endwall
- 2 x 6 CCA-pressure-treated base-strapping, 2-3 1/2" galv. spiral nails to each stud and sill (4)
- 2 x 3 horizontal strapping @ 2'-0" o.c.; 5/16" plywood sheathing, face grain vertical; 2 x 2 vertical strapping at each stud; 1 x 6 slatting (1" spaces)
- R-28 insulation with a vapor barrier on the outside.
- Minimum number of spiral nails for plate and strap nailing.
- horizontal exterior metal siding screwed to studs, over asphalt felt windproofing
- 1" soffit, 2" screened vent slot



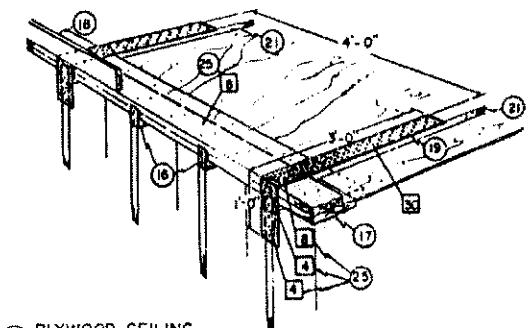
ALTERNATIVE STEEL CEILING AT ENDWALL



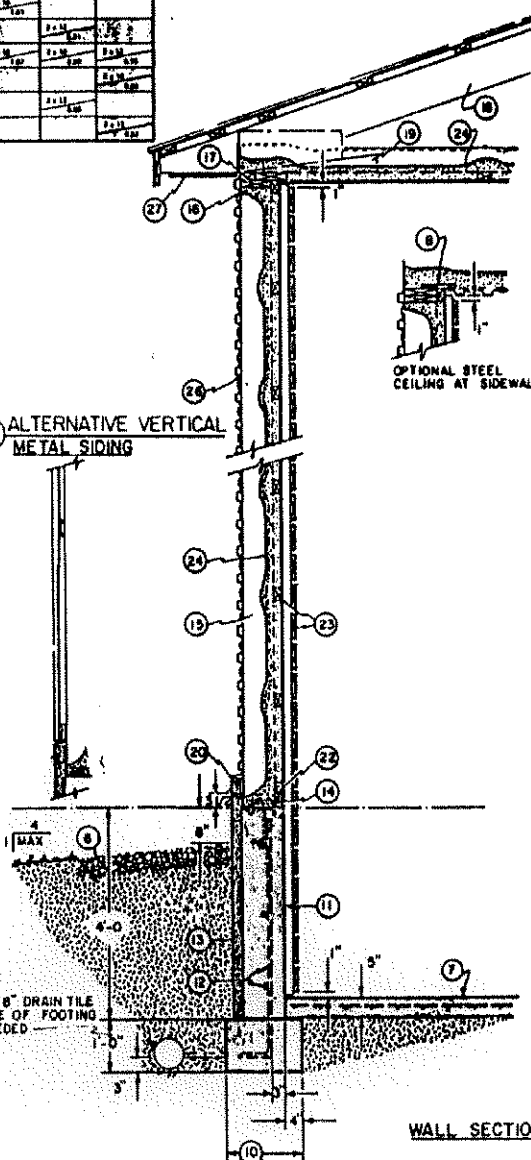
9 PLATE ANCHOR EMBEDDED INTO TOP OF FOUNDATION



TRUSS-TO-SIDEWALL CONNECTION



4 PLYWOOD CEILING AT ENDWALL



WALL SECTION

COOPERATIVE EXTENSION SERVICE
AGRICULTURE AND HOME ECONOMICS

UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

REFRIGERATED BULK
VEGETABLE STORAGE WALL

CAN. '87	6388	SHEET 1 OF 1
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DRAWINGS NOT TO SCALE