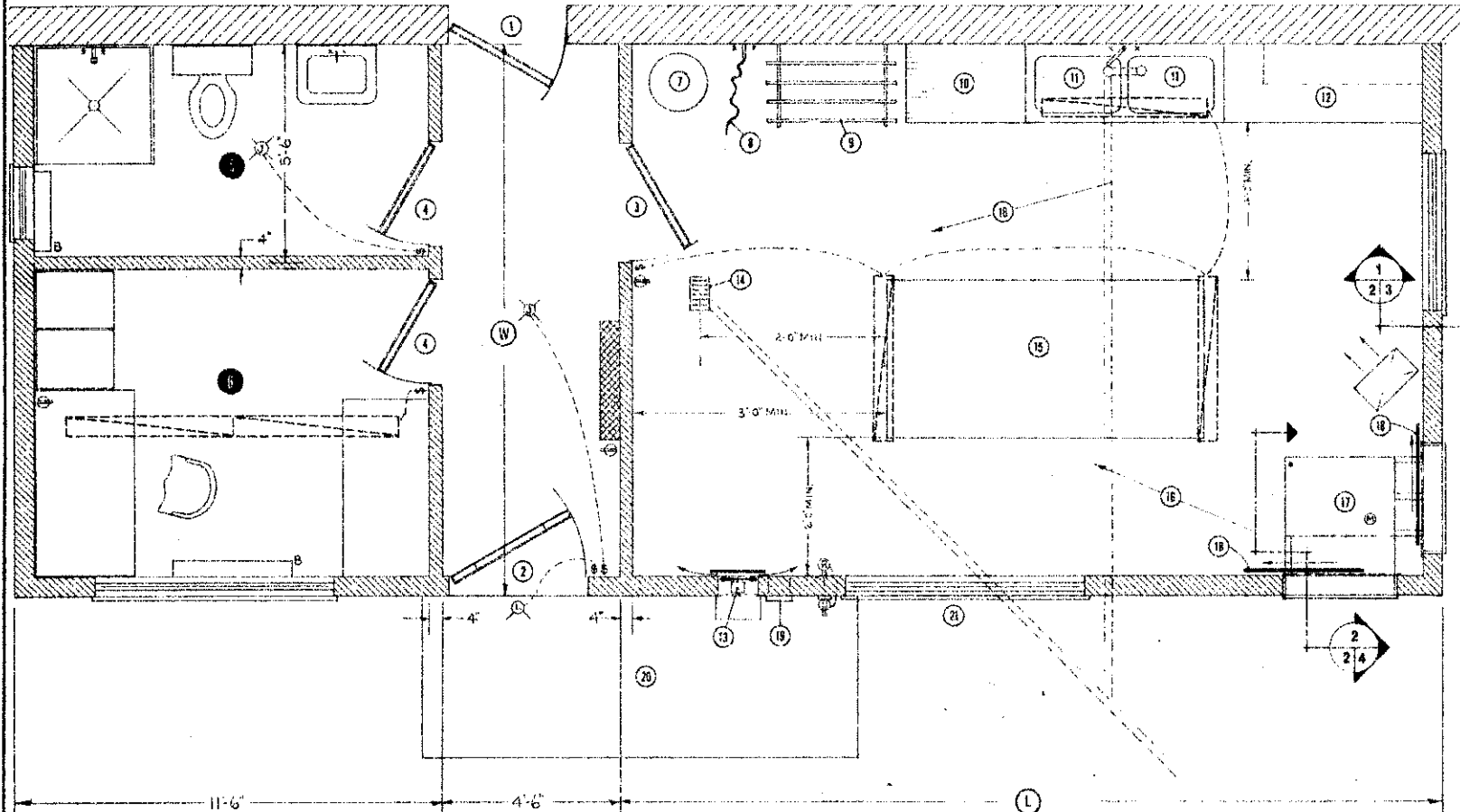


SYM	REVISIONS	CHECKED	DATE	APPROVED
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INCLUDE: ROOF TRUSS PLAN TO SUIT LOCAL DESIGN LOADS (SHEET 5 of 5)

CANADA FARM BUILDING PLAN SERVICE

MILKHOUSE, OFFICE & WASHROOM		PLAN 2126
DESIGNED R.J.M.	DATE JUNE / 71	
DRAWN J.S. (1/11)	REVISED	SCALE 1/4" = 1'-0"
TRACED		
CHECKED		
		SHEET 1 OF 5



- 1 barn or milking parlor entrance (self closing insulated door)
 - 2 3'-6" insulated door with double-glazed window panel
 - 3 3'-6" self closing door
 - 4 2'-8" door
 - 5 washroom with shower, toilet and sink
 - 6 office
 - 7 water heater
 - 8 20' of hose connected to hot & cold mixing faucet for washing of tanks and floors. Wall bracket to hold hose when not in use.
 - 9 pail rack
 - 10 drain board
 - 11 double sink to drain, with gas trap and vent stack
 - 12 work counter with storage above
 - 13 air intake fan with baffle, approx. 500 C.F.M. capacity
 - 14 4" floor drain complete with sloped cover, sediment bucket and gas trap
 - 15 bulk milk tank
 - 16 Floor slope 1/4" ft. min.
 - 17 compressor base 4'-6" to 5'-0" from floor, 3'-0" min. from ceiling
 - 18 insulated sliding panels open for summer ventilation of compressor
 - 19 hose port (min. 6" above floor and grade)
 - 20 floating concrete pad
 - 21 window and insulated panel below it are constructed so they may be removed to permit entry or exit of bulk tank. All windows to be insulated by either installing storm-glazing or sealed double-glazed type window units. Insect screens on all windows which open
- ⊕ lighting switch
 - ⊕ 115 volts, duplex convenience outlets
 - ⊕ 3 to 5 kw ceiling mounted fan-forced electric heater, with thermostat
 - ⊕ 220 V weatherproof exterior outlet for tank truck pump (if required)
 - ⊕ 2 HP rated manual switch
 - ⊕ distribution panel
 - ⊕ baseboard unit heater
 - ⊕ 2-40 W fluorescent, 4 ft. fixture (low temperature ballast)
 - ⊕ 100 watt incandescent light fixture
 - ⊕ 150 watt par 30 floodlight
 - ⊕ compressor motor outlet to suit motor characteristics

Table of Minimum Recommended Dimensions
For New Milk Room

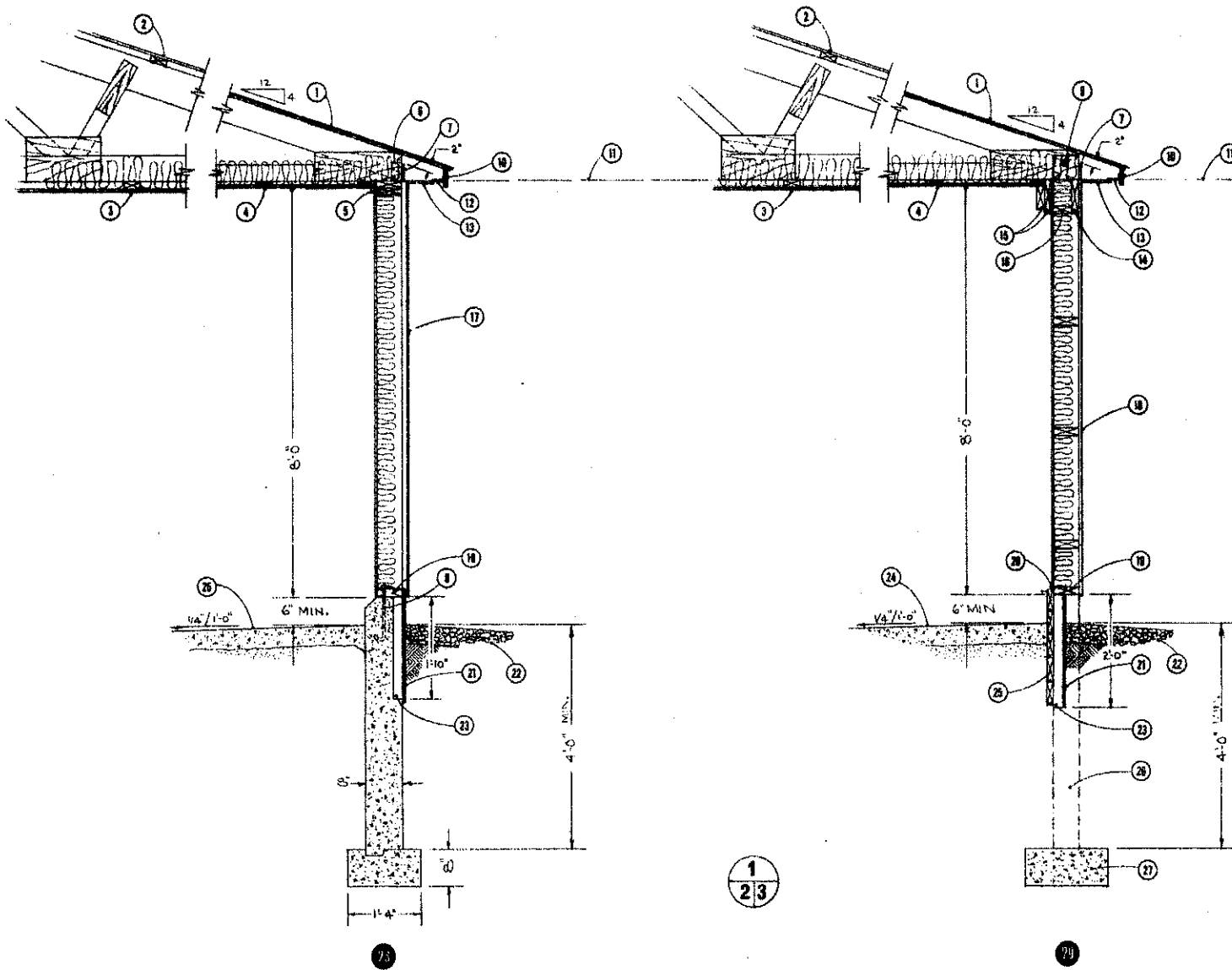
Size of Herd	W	L	Tress
Up to 25 cows	14'	16'	32'
26 to 35 cows	14'	18'	34'
36 to 48 cows	16'	20'	36'
49 to 72 cows	16'	22'	38'
66 cows or over	18'	26'	42'

A Detail No.
B Sheet No. On Which Detail Originates
C Sheet No. On Which Detail is Shown

CANADA FARM BUILDING PLAN SERVICE

FLOOR PLAN AND ELECTRICAL LAYOUT

DESIGNED <i>R.J.M.</i>	DATE <i>June/71</i>	PLAN 2126
DRAWN <i>[Signature]</i>	REVISED	
TRACED	SCALE	SHEET 2 OF 2
CHECKED <i>H.A.</i>	SCALE <i>1/8" = 1'-0"</i>	



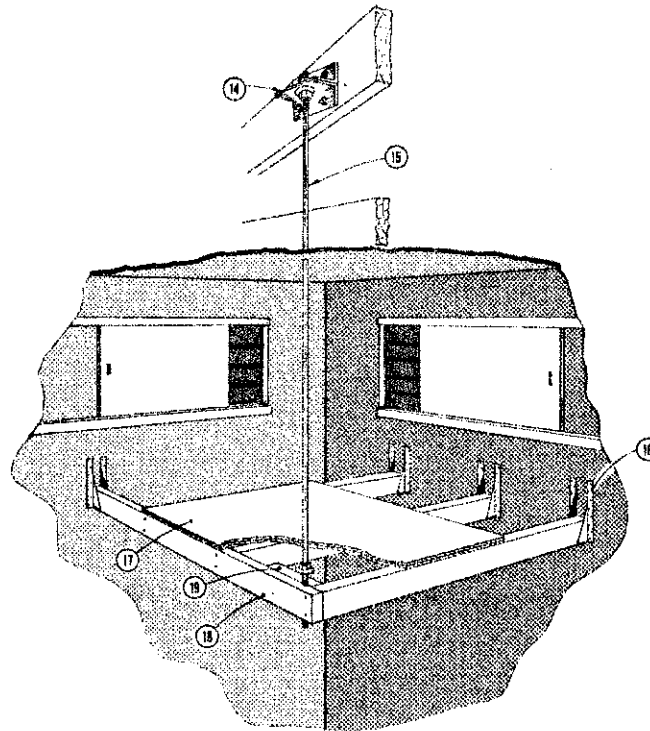
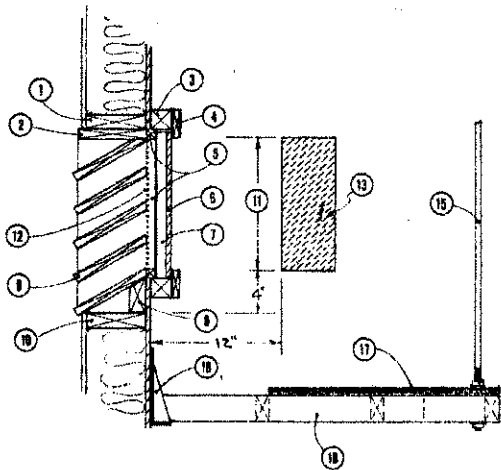
- 1 210-lb asphalt shingles on 3/8" plywood sheathing. Use N-clips at unsupported plywood edges midway between roof trusses 2'-0" o.c.
- 2 metal roofing on 2" x 4" nailers spaced as per roofing manufacturer. Roof trusses 4' o.c.
- 3 insulated ceiling; 6" friction-fit insulation between trusses 4'-0" o.c., 2" x 4" strapping and blocking 4'-0" o.c., 4-mil P.E. vapour barrier, 3/8" plywood, painted finish
- 4 insulated ceiling same as ① except trusses 2'-0" o.c., 1" x 4" strapping and blocking 2' x 4' o.c., 1/4" plywood
- 5 2 - 2" x 6" plates
- 6 framing anchor
- 7 plywood baffle
- 8 4" x 12" anchor bolts 4' o.c.
- 9 1/2" Ø bolt, truss to post @ 8' o.c. max.
- 10 face board, 2" for trusses 4' o.c., 1" for 2' o.c.
- 11 top of plate
- 12 2" screened inlet
- 13 soffit
- 14 2" x 8" outer plate (notched into post)
- 15 2" x 6" and 2" x 8" plates
- 16 blocking ripped from 2" x 6"
- 17 exterior siding, 15 lb asphalt felt, (breather type) 2" x 6" studs @ 2'-0" o.c., 4" friction fit insulation, 4-mil P.E. vapour barrier, 3/8" plywood painted as req'd. by local regulations.
- 18 exterior siding, 15 lb asphalt felt, (breather type), 2" x 6" girts @ 2'-0" o.c., 4" friction fit insulation, 4-mil P.E. vapour barrier, 3/8" plywood painted as req'd. by local regulations, block at joints
- 19 2" x 6" bottom girt, pressure treated
- 20 pre-paint plywood, caulk between plywood and treated planking. Then nail through planking and plywood with 3" galv. nails (rubber plank to fit plywood and bevel)
- 21 3/16" high-density recompressed exterior type asbestos board, drill for galv. nails
- 22 gravel splash pad at grade
- 23 2" rigid insulation expanded polystyrene
- 24 4" concrete floor, 6 mil P.E. moisture barrier, compacted sand or gravel fill
- 25 2" x 6" pressure treated planking, stagger end joints at posts
- 26 4" x 6" pressure treated wood post @ 8'-0" o.c. max.
- 27 18" dia. x 8" concrete pad
- 28 stud wall option.
- 29 post frame option

SYM	REVISIONS	CHECKED	DATE	APPROVED

CANADA FARM BUILDING PLAN SERVICE

WALL SECTIONS	
DESIGNED <i>R.L.M.</i>	DATE <i>JUNE / 71</i>
DRAWN <i>[Signature]</i>	REVISED
TRACED	SCALE
CHECKED <i>H.R.J.</i>	<i>NO SCALE</i>
PLAN 2126	
SHEET 3 OF 3	

A Detail No.
 B Sheet No. On Which Detail Originates
 C Sheet No. On Which Detail Is Shown



2
2/4

- 1 2" x 6" header
- 2 1" x 7" casing (top and sides)
- 3 1 3/4" x 1 3/4" stop, all around frame
- 4 1" x 3" guide (top and bottom)
- 5 3/8" x 3/4" spacer (all around)
- 6 3/8" plywood sliding door
- 7 1" polystyrene (glued to plywood door)
- 8 framing (ripped from 2" x 4")
- 9 1" x 8" louvers
- 10 2" x 6" blocking
- 11 height and width of louver to be 6" greater than condenser
- 12 screening
- 13 condenser unit
- 14 angle iron bracket (2 - 2" x 2" x 1/2" x 4" long fastened to top chord)
- 15 3/8" rod hanger with 2 nuts and washers each end
- 16 jolst hangers (4 req'd.)
- 17 3/4" plywood base
- 18 2" x 4" supports (4 req'd.)
- 19 2" x 4" blocking

A
B
C

A Detail No.
B Sheet No. On Which Detail Originates
C Sheet No. On Which Detail is Shown

EYM REVISIONS CHECKED DATE APPROVED

CANADA FARM BUILDING PLAN SERVICE

CONSTRUCTION DETAILS

DESIGNED K.J.M.	DATE JUNE 72	PLAN
DRAWN	REVISED	2126
TRACED	SCALE	
CHECKED W.A.J.	1/2" = 1'-0"	SHEET 1 OF 1

MILK HOUSE, OFFICE AND WASHROOM

This plan is for a bulk milk house, office and washroom to be attached to a tie-stall dairy barn. This arrangement provides a sheltered entrance to both the barn and the milk room. Two self-closing doors separate the milk room from the barn to help keep flies, odor and dirt out of the milk room.

A hose port is shown through the wall near the bulk tank outlet, for the convenience of the bulk milk trucker. Some trucks also require an outside 220-volt electrical outlet for the truck milk pump, with an inside switch.

In case the bulk tank must be installed or changed after construction, the plan shows a removable window combined with an insulated panel below.

MILK ROOM SIZE

The milk room should be sized to accommodate necessary equipment and provide adequate working space. A table of recommended milk room dimensions in relation to herd size is shown in the plan.

WALL AND ROOF CONSTRUCTION

Waste heat from the milk cooler together with some supplementary electric heat can easily maintain milk room temperature in cold weather, if the building is fully insulated. A wood frame makes fully insulated construction easier since it utilizes economical 4-inch and 6-inch batt insulation as used in modern houses.

Two types of wood frame are shown; stud wall and post frame. The conventional stud wall method uses an insulated concrete perimeter foundation extending below frost and a sill of pressure-treated wood at the base of the wall studs. The post frame method uses spaced pressure-treated wood posts set on concrete footings below frost, and a skirt of pressure-treated wood planking spiked to the inside face of the posts. Rigid polystyrene foam board at grade insulates the outside perimeter of both types of foundation.

The gable roof is framed with wood trusses to support the insulated ceiling and the roofing.

Interior wall and ceiling surfaces should be secured with dip-galvanized nails, and finished with a smooth water-proof coating such as polyurethane or epoxy enamel.

CONCRETE FLOORS

The milk room floor must be easy to keep clean, but not polished so smooth that it becomes slippery when wet. The floor supports the loaded bulk milk tank, so it should be laid on well-compacted granular fill and steel-reinforced to prevent unsanitary cracks. Concrete should be top quality (4000 psi min.), and be finished to a smooth non-skid surface such as a 'wood float' finish.

MILK ROOM DRAINAGE

The entire floor should slope to a 4-inch floor drain complete with a slotted cover, sediment bucket and gas trap. Locate the floor drain adjacent to the outlet end of the bulk milk tank and at least two feet from the outlet valve.

Milk room wastes including floor washings and sink drainage may be drained to a sedimentation tank thence to a tile disposal bed, if the sub-soil is coarse and well-drained. This sediment tank must be pumped out regularly to dispose of solids, otherwise the tile will plug.

With a liquid manure system, a better way to dispose of milk room drainage is to pipe the waste to the liquid manure storage tank. This provides the necessary dilution of the manure for easy pumping.

WASHROOM DRAINAGE

A separate septic tank and disposal bed is required to treat the washroom wastes because the disinfecting and cleaning chemicals used in the milkroom destroy bacterial action in the septic tank.

VENTILATION AND HEATING

This plan shows a separate cooling compressor suspended in one corner of the milk room; summer ventilation for this unit is through a pair of louvered screened openings complete with insulated sliding panels to be closed in winter.

For winter, the plan shows a small intake fan to maintain ventilation with a slight positive pressure; this helps keep out barn odors.

A 4 to 5-kw electric heater with thermostat usually provides enough heat in winter to supplement waste heat from the cooling compressor.

LOCAL REGULATIONS

This plan meets the requirements for most authorities having control of farm milk handling. However, you should obtain approval for your plans from proper local authorities before construction is started.