

ONE SET OF DRAWINGS & LEAFLETS SHOULD INCLUDE

| CPS no. | SHEET no. | TITLE |
|---------|-----------|--|
| 2502 | 1 | Herringbone milking center (two return alleys) |
| 2502 | 2 | Floor plan |
| 2502 | 3 | Cross section |
| 2502 | 4 | Longitudinal section & details |
| 2502 | 5 | Electrical plan & wall section |

AND

| | |
|--------|---------------------------------|
| Q-2503 | Milking parlor grounding method |
| 2821 | Single headrail tie stall |
| 9102 | Truss erection & bracing |
| 9324 | Stud frame walls |

OPTIONAL

Roof truss plan, to suit span and snow load

"This plan conforms to the requirements of the Canadian Farm Building Code. The user of this plan must ensure that the design criteria indicated herein will meet all local design conditions, building regulations and special requirements."

WARNING

This plan may require structural and other changes to meet local site conditions, climatic loads, user requirements and applicable building regulations (such as the Canadian Farm Building Code). Before construction, the user of this plan is responsible to ensure that all required changes are made.

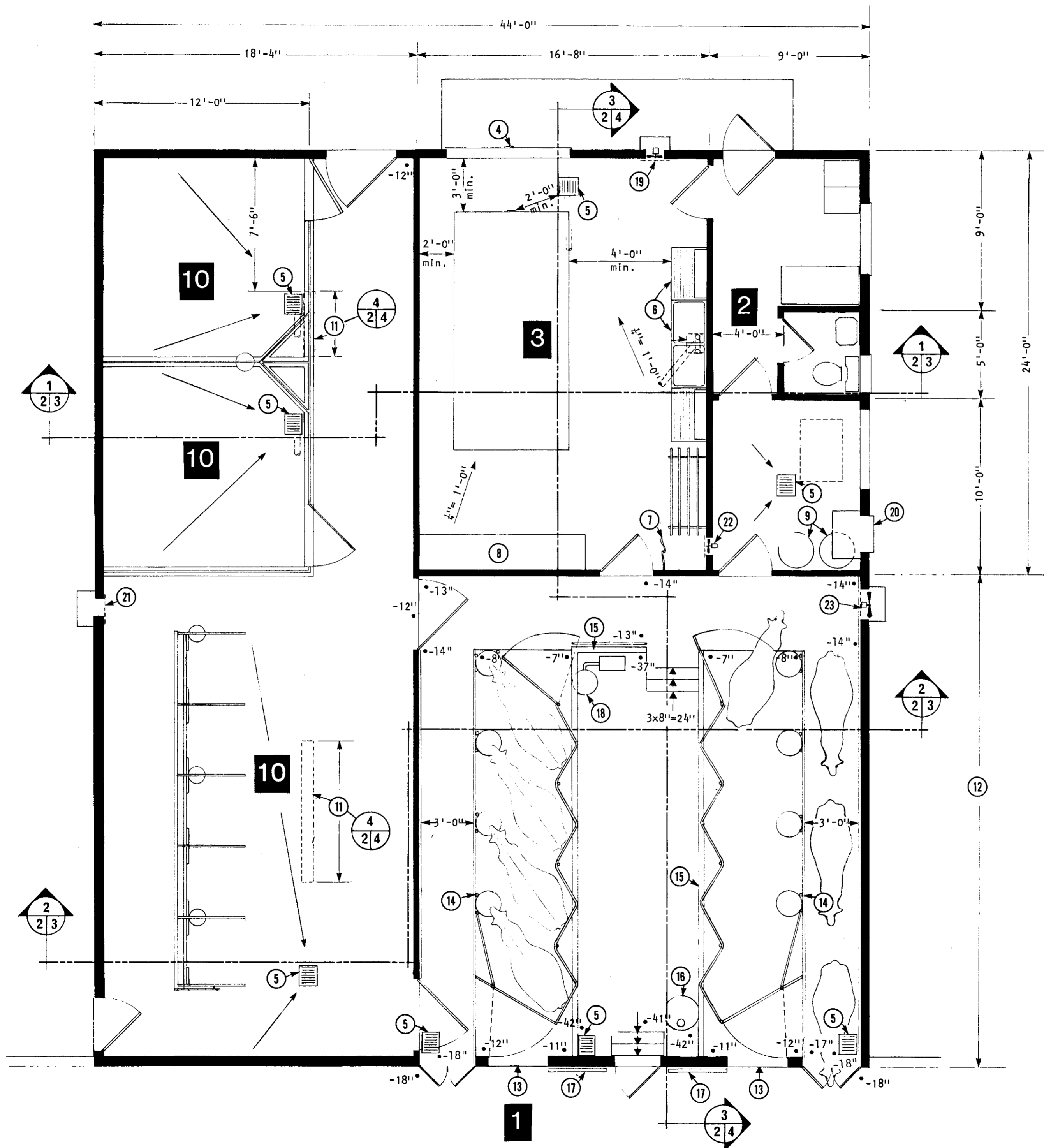
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HERRINGBONE MILKING CENTRE
(TWO RETURN ALLEYS)

(not to scale)

| | | |
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| DESIGNED <i>JET</i> | DATE Oct./77 | PLAN 2502 |
| DRAWN D. BROWN | REVISED <i>JAM</i> 84-01 | |
| TRACED | DETAIL NUMBER A | SHEET 1 OF |
| CHECKED <i>JET</i> | ORIGINATES ON SHEET B DRAWN ON SHEET C | |



- 1 floor plan; floor elevations such as .14" show in. below datum line (top of foundation)
- 2 office with door to sidewalk, washroom & mechanical room (refrigeration, electrical, vacuum pump etc.)
- 3 milk room, with bulk milk tank cooled from unit in mechanical room
- 4 hose port at least 6" above floor & grade; removable window above with insulated lower panel (for replacement of bulk milk tank)
- 5 floor drain with gas trap, see [4] sheet 4
- 6 double sink with drain board, cupboards above
- 7 hot & cold mixing faucet, 20'-0" hose & nozzle
- 8 auto-washing equipment for pipeline
- 9 2 x 60 gal. electric water heaters, one warm for cow wash, one hot for equipment wash
- 10 breed area with tie stalls (leaflet 2821), 12'-0" x 12'-0" treatment pens
- 11 ceiling air inlet, for winter ventilation
- 12 approximately 28'-0" for double- or 40'-0" for double-8 parlor (see supplier)
- 13 single step up to parlor
- 14 pipe posts, 2" x 8" rub planks
- 15 3" galvanized pipe curb, or see stall supplier
- 16 concrete pit with cover, automatic sump pump
- 17 if barn is warm, door is optional; if cold, use vacuum operated insulated sliding doors 3'-6" x 6'-8"
- 18 milk transfer equipment
- 19 intake fan with baffle, approximately 530 cfm capacity, manual switch
- 20 2-speed exhaust fan see [3] sheet 5
- 21 small 2-speed exhaust fan
- 22 fan blows warmed air to milk room in winter
- 23 optional summer exhaust fan 3500 cfm, manual switch, provide fresh air inlet ducted from outdoors to ceiling over operator pit,

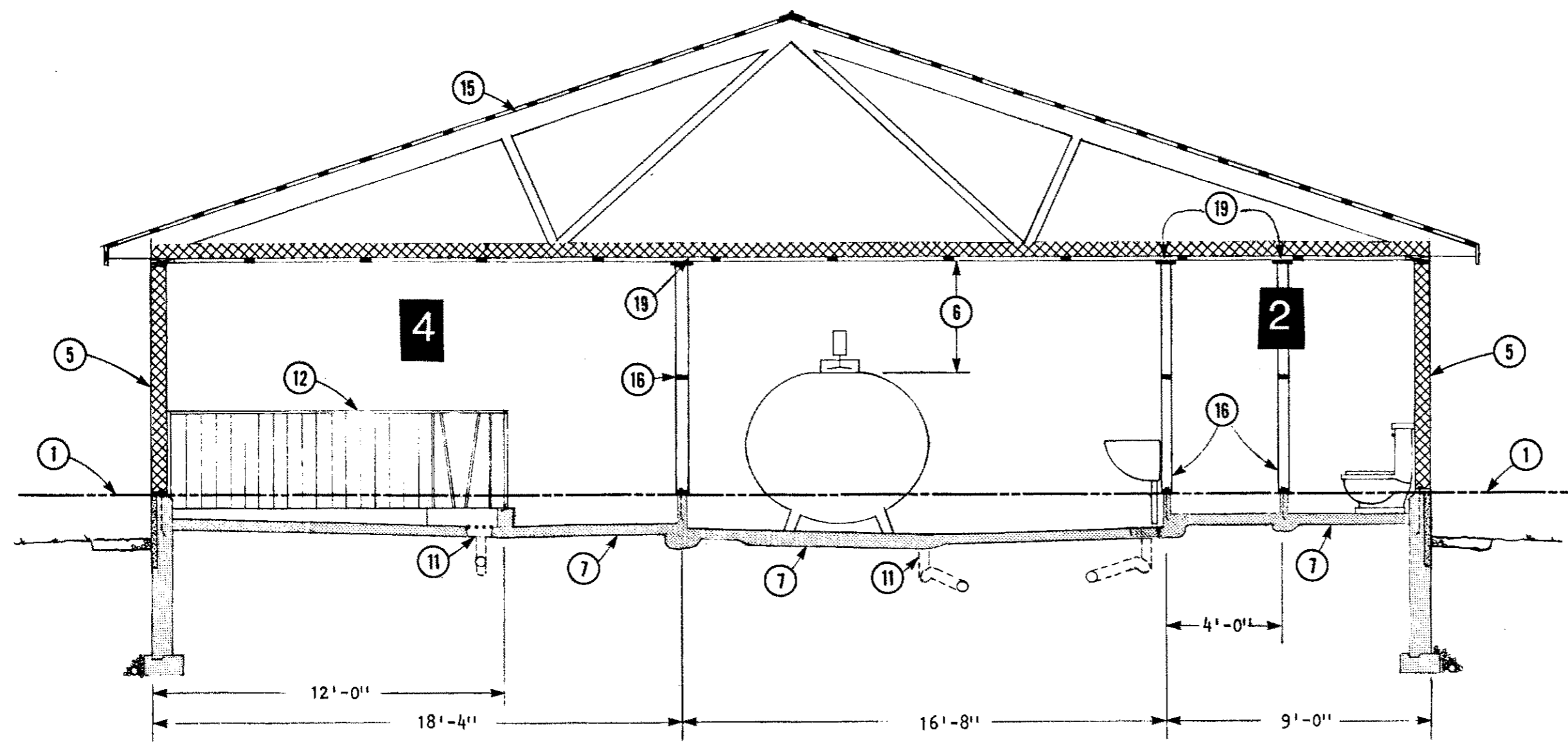
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PLAN SERVICE**

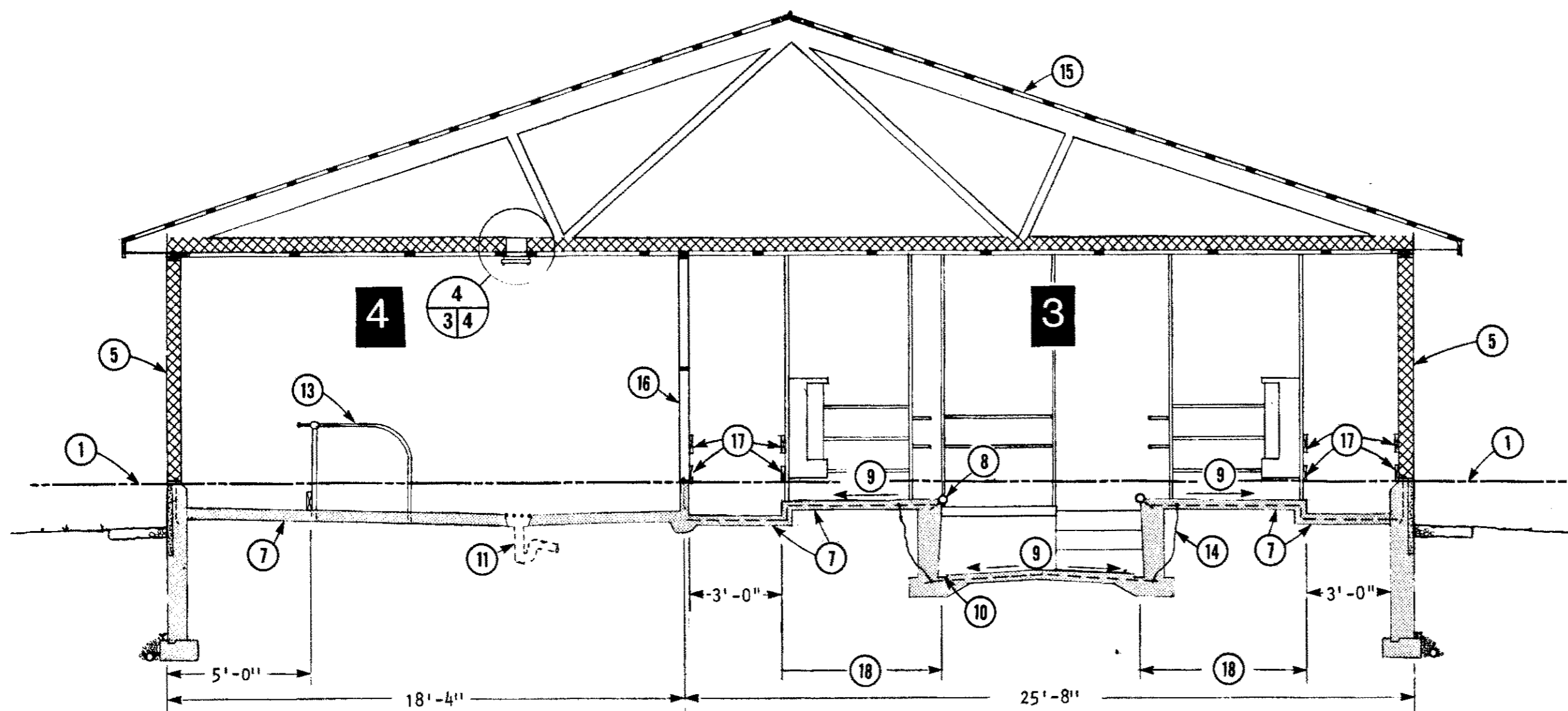
FLOOR PLAN

(not to scale)

| | | |
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| DESIGNED JET | DATE Oct./77 | PLAN 2502 |
| DRAWN BROWN/MORDEN | REVISED JAM 84-01 | |
| TRACED | DETAIL NUMBER A | SHEET 2 OF |
| CHECKED JET | ORIGINATES ON SHEET B DRAWN ON SHEET C | |



1
2 3



2
2 3

- 1 datum line, top of concrete foundation; floor elevations such as .-14" show in, below datum line, dot shows location
- 2 washroom & hallway to office
- 3 milking parlor (see manufacturer)
- 4 breed and treatment area
- 5 insulated wall and concrete foundation see plan 9324, R20 insulation in wall, R28 in ceiling, sill CCA pressure-treated and stud butts soaked in wood preservative
- 6 set milk room floor elevations to give at least 3'0"- clear from top of bulk tank to ceiling (for removal of milk measuring rod)
- 7 compacted sand or gravel fill 6", polyethylene vapor barrier, floor 4" of 4000 psi concrete, increase floor to 6" thick under bulk tank
- 8 3" galvanized pipe curb top set 2" above stall floor to floor with 1/2" rebar lugs welded @ 3'-0" oc, or see supplier
- 9 floors sloped to drain; see floor plan sheet 2
- 10 3" x 2" gutter, optional
- 11 floor drain and gas trap, see sheet 4; 4" sewer pipe sloped uniform to sump
- 12 treatment pen (see manufacturer)
- 13 4'-0" wide stalls, see 2821 (no gutter)
- 14 all stall hardware & floor reinforcing electrically bonded, (plan 0-2503)
- 15 trusses 44'-0" span, @ 4'-0" oc
- 16 interior partitions 6" concrete block, or 4" stud frame as shown; if wood frame, sill CCA pressure-treated, stud butts soaked in wood preservative
- 17 2" x 8" rub planks @ 18" and 3'-0" from floor, secure to stall posts with U-bolts recessed flush
- 18 dimensions vary, see stall equipment supplier
- 19 provide space over interior partitions as per camber indicated on truss plan

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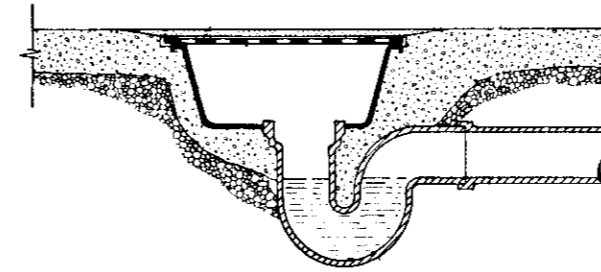
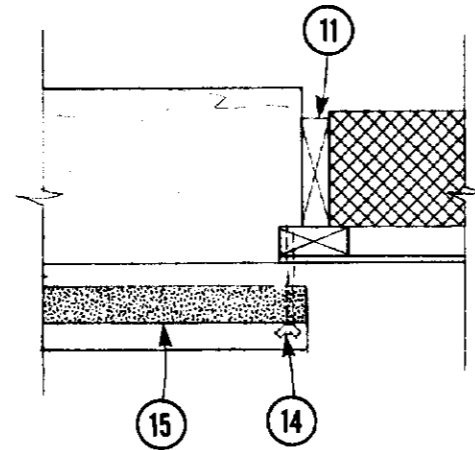
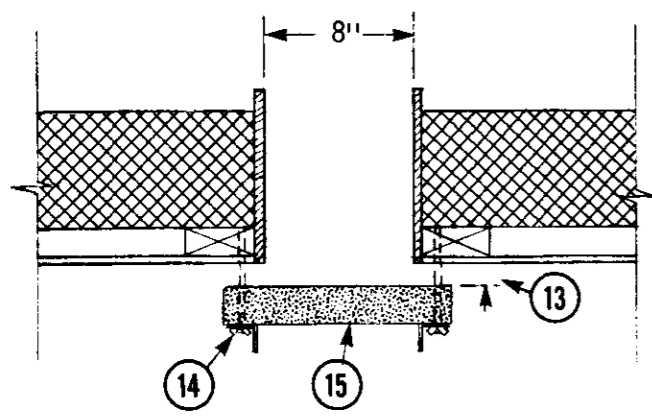
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CROSS SECTIONS

(not to scale)

| | | |
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| DESIGNED <i>JET</i> | DATE Oct./77 | PLAN 2502 |
| DRAWN BROWN/MORDEN | REVISED <i>JAM</i> 84-01 | SHEET 3 OF |
| TRACED | DETAIL NUMBER <i>A</i> | ORIGINATES ON SHEET <i>B</i> |
| CHECKED <i>JET</i> | <i>A</i> B C | DRAWN ON SHEET <i>C</i> |

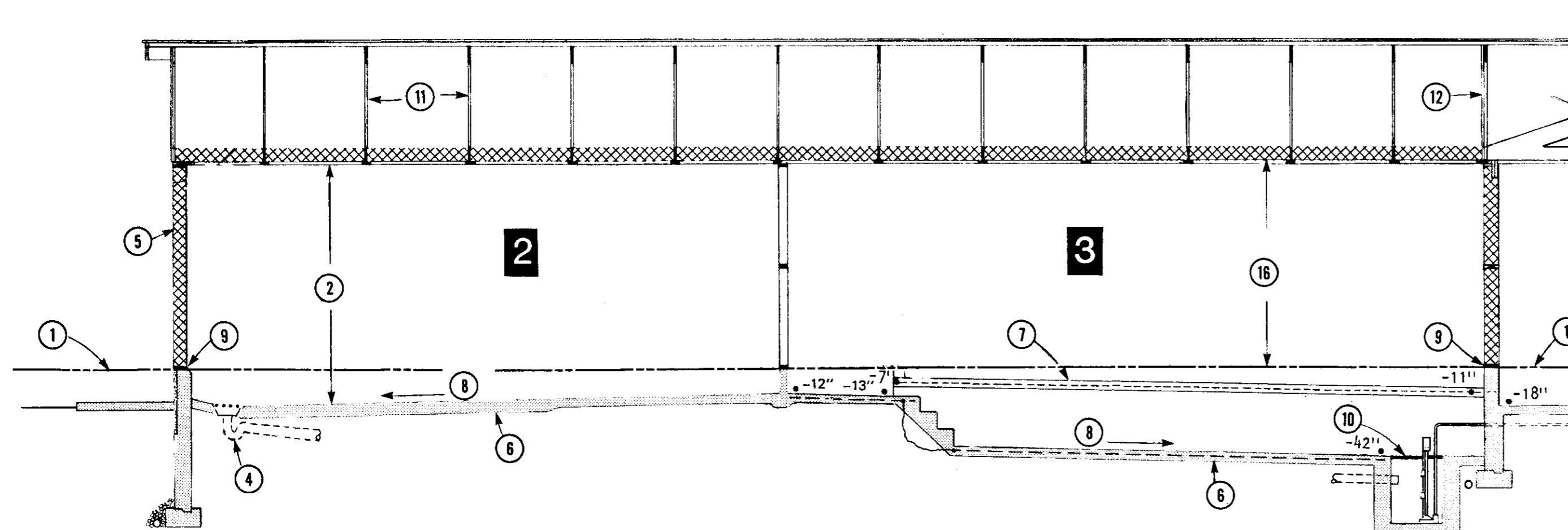
- 1 datum line, top of foundation; floor elevations such as $-.14''$ show in. below datum line, dot shows location
- 2 milk room, height to give at least 3'-0" clear from top of bulk tank to ceiling (for removal of milk measuring rod)
- 3 milking parlor
- 4 4" floor drain with $\frac{1}{2}''$ steel cover plate, $\frac{3}{4}''$ holes for drainage. Form sump in concrete with plastic dishpan, cut hole for P-trap. Use temporary $\frac{1}{2}''$ plywood cover to form rabbet in concrete
- 5 insulated wall and concrete foundation see plan 9324, R20 insulation in wall, R28 in ceiling, sill CCA pressure-treated & stud butts soaked in wood preservative
- 6 compacted sand or gravel fill 6", polyethylene vapour barrier, floor 4" of 4000 psi concrete 6" thick floor under bulk tank, for milking parlor grounding see plan Q-2503
- 7 3" galvanized pipe curb, top set 2" above stall floor, anchored to floor with $\frac{1}{2}''$ rebar lugs welded 3'-0" oc
- 8 floors sloped to drain; see floor plan sheet 2
- 9 elastomer or butyl caulking
- 10 concrete sump pit with cover
- 11 trusses 44'-0" span, @ 4'-0" oc
- 12 join to holding area, construction varies
- 13 adjust inlet slot $\frac{1}{8}''$ for cold winter weather, $\frac{3}{8}''$ for mild weather, closed for hot summer weather (open doors when cattle are housed)
- 14 $\frac{1}{2}''$ plated carriage bolts, washers and wing nuts for inlet adjustments
- 15 2" x 12" extruded polystyrene baffle stiffened with 2" x 2" angle bent from galvanized sheet steel
- 16 8'-2" if ceiling is fastened to 2" ceiling strapping, 8'-0" if ceiling is fastened directly to trusses (see 9324)



2,

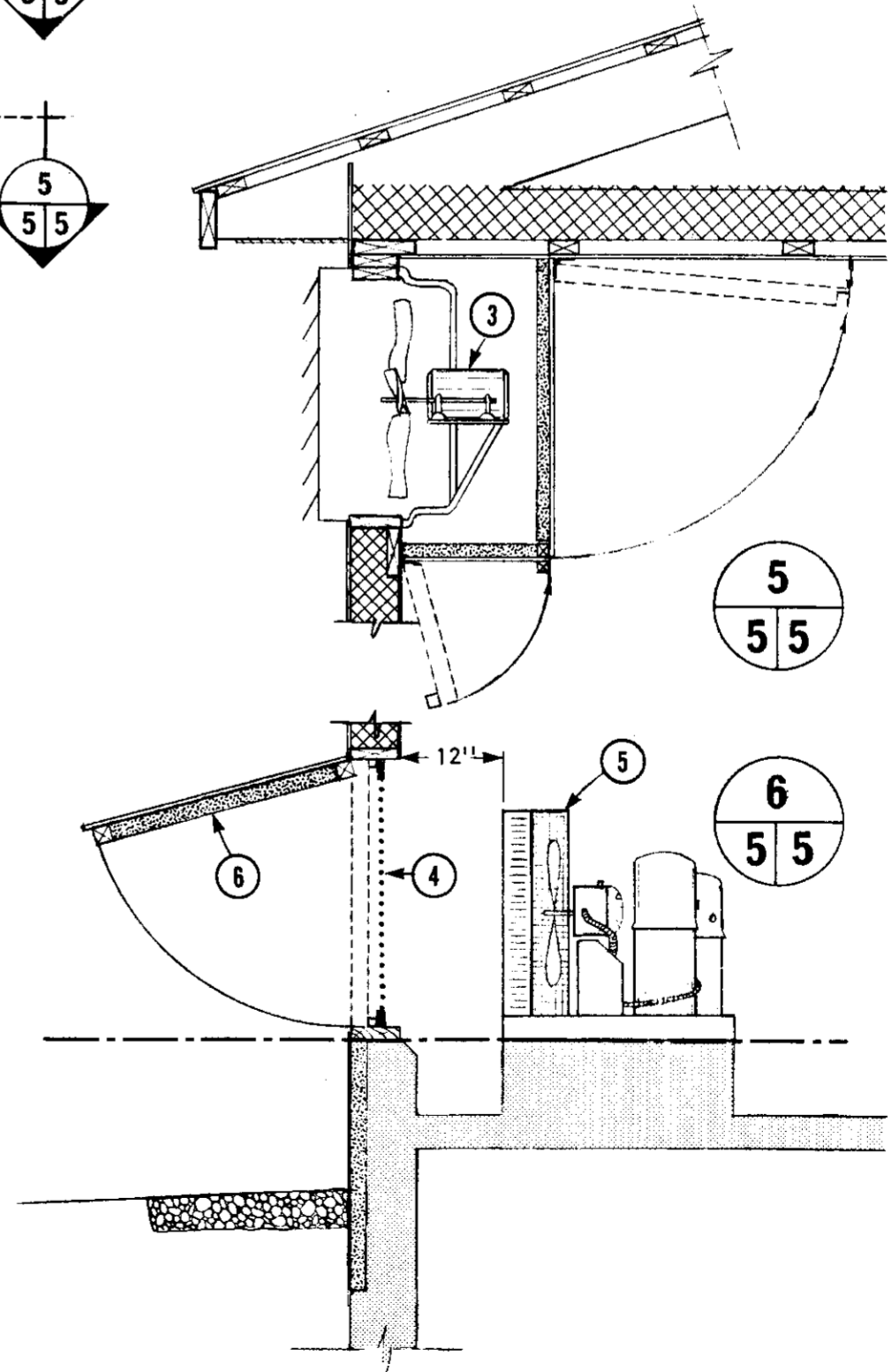
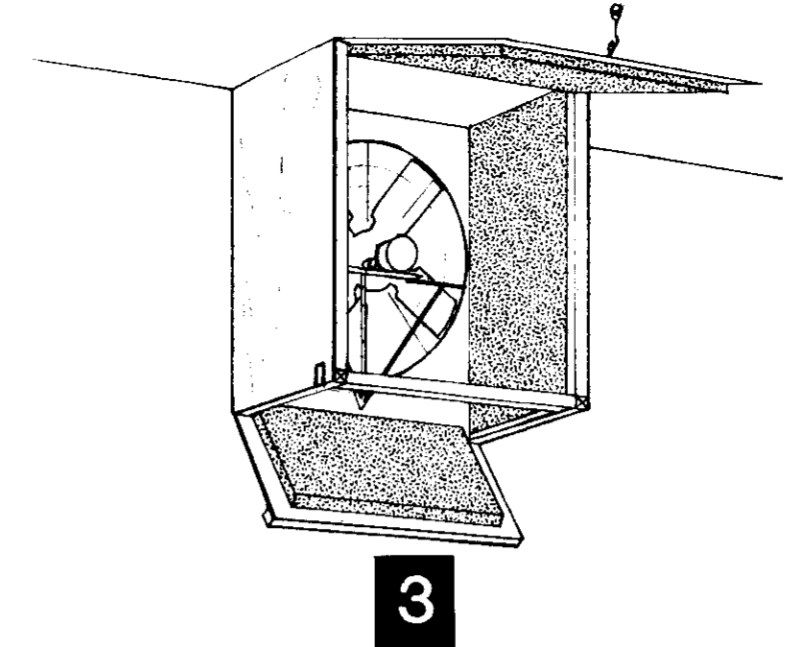
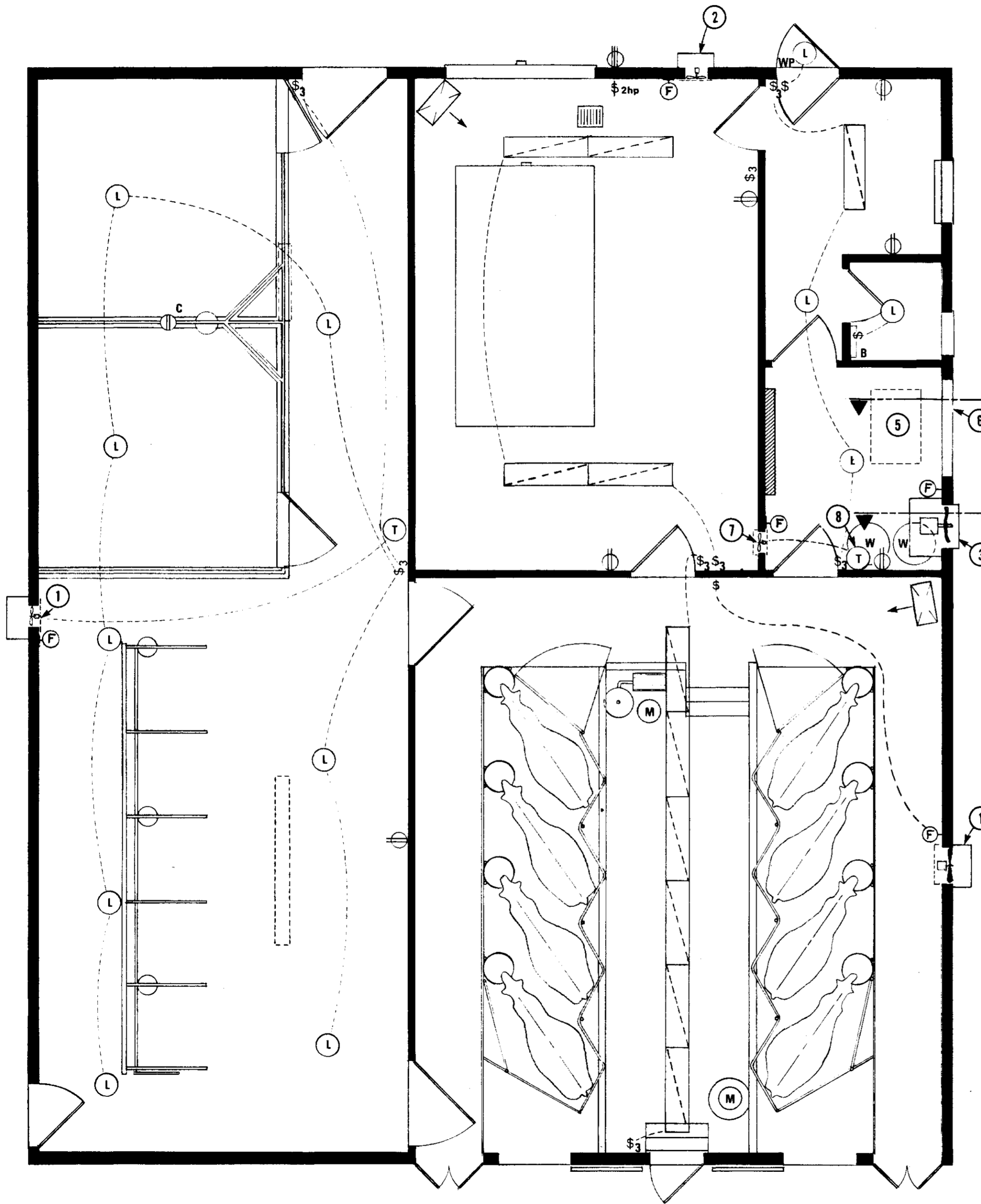
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| | | | | | | | | | | | | |
| LONGITUDINAL SECTION & DETAILS | | | | (not to scale) | | | | | | | | |
| DESIGNED <i>JET</i> | DATE Oct./77 | PLAN | | 2502 | | | | | | | | |
| DRAWN BROWN/MORDEN | REVISED <i>JAY</i> 84-01 | SHEET 4 OF | | | | | | | | | | |
| TRACED | <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="text-align: center;">A</td> <td>DETAIL NUMBER</td> <td style="text-align: center;">A</td> </tr> <tr> <td style="text-align: center;">B</td> <td>ORIGINATES ON SHEET</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">C</td> <td>DRAWN ON SHEET</td> <td style="text-align: center;">C</td> </tr> </table> | A | DETAIL NUMBER | | A | B | ORIGINATES ON SHEET | B | C | DRAWN ON SHEET | C | |
| A | DETAIL NUMBER | A | | | | | | | | | | |
| B | ORIGINATES ON SHEET | B | | | | | | | | | | |
| C | DRAWN ON SHEET | C | | | | | | | | | | |
| CHECKED <i>JET</i> | | | | | | | | | | | | |



- 1 2-speed exhaust fan, controlled with thermostat wired in series with low-off-high manual speed selector switch
- 2 optional small fresh-air intake fan to provide positive pressure in milk room
- 3 backdraft louvers, inside weatherhood and exhaust fan to exceed fan capacity of compressor unit (5); control fan with 3-position switch indicating "on automatic" (with milk cooler), or "off", or "on manual", weather hood closed for winter, open for summer
- 4 removable insect screen, clean frequently in summer
- 5 milk cooler condensor unit
- 6 rectangular wall opening, at least twice the face area of condensor coil unit; hinged door with 2" insulation is secured open in summer, closed in winter
- 7 12" 2-speed fan, control with high/low speed selector switch with off neutral, wired in series with thermostat (8)
- 8 farm type thermostat 5'-0" above floor, set to start fan (7) at 16°C in winter

ELECTRICAL

- | | | |
|---------------------|--------------------|--------------------------------------|
| ceiling | wall | |
| (L) | (L) | Incandescent Lampholder |
| (L _{wp}) | (L _{wp}) | Weatherproof Incandescent Lampholder |
| (F) | (F) | Flourescent Fixture |
| (O) | (O) | Duplex Convenience Outlet |
| (S) | (S) | Special Purpose Outlet |
| (F) | (F) | Fan Outlet |
| (M) | | Motor |
| (T) | | Thermostat |
| (W) | | Water Heater |
| (S) | | Single Pole Switch |
| (S ₃) | | Three Way Switch |
| (F) | | Fan Forced Heater |
| (B) | | Baseboard Unit Heater |
| (DP) | | Distribution Panel |
| (S _{2hp}) | | 2hp Rated Manual Switch |

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ELECTRICAL PLAN
& WALL SECTION

(not to scale)

| | | |
|---------------------|--------------------------|-------------|
| DESIGNED <i>JET</i> | DATE Oct./77 | PLAN |
| DRAWN BROWN/MORDEN | REVISED <i>JAM</i> 84-01 | 2502 |
| TRACED | DETAIL NUMBER <i>A</i> | SHEET 5 OF |
| CHECKED <i>JAM</i> | DRAWN ON SHEET <i>C</i> | |