

1. pipe or trench, drains from barn
2. holding tank, 2 to 4 weeks liquid manure storage
3. sump 4' x 4', 1' below holding tank floor total depth to suit depth of manure pump (4)
4. PTO and gearbox drive for tractor-powered chopper pump
5. pump inlet 8" above sump (3), 4" below tank floor
6. diverter valve to agitator jet (7), or to upper diverter valve (8)
7. agitation jet for blending manure and water before pumping out
8. upper diverter valve, to storage (14) or tanker (23)
9. control levers
10. 5" steel tubing to top of silo (see pump manufacturer for tube, quick-couplers and supports)
11. 2-way diverter valve to rotating nozzles (12) or (13)
12. upper nozzle with swivel and control handle, for filling or agitation  
Make nozzle from reducing couplings
13. lower nozzle with swivel and control handle, for agitation before emptying tank (14)
14. manure storage silo, 30' diameter, 706 cu. ft. storage per foot of height (see sheet 2 for details of concrete stave or cast-in-place construction)
15. sump 4' x 4' x 18" deep
16. 6" pipe outlet, open and cut at 45°, and with 6" hole each side
17. outlet valve, 6" rising stem gate valve with extension handle
18. 10" stand pipe for valve handle
19. insulated cover box, remove for access to valve, lock for security
20. 6" galv. steel pipe, below frost
21. 6" gate valve; open to drain from storage (14) to tank (2), close to back-flush pipe (20)
22. filler pipe from upper diverter valve (8) to tanker (23)
23. liquid manure tanker, to field
24. 5" removable J-pipe quick-coupled from pump diverter valve (8) to riser pipe (25)
25. 5" fixed riser pipe to back-flush steel pipe (20) and outlet opening (16). Key also be used for filling storage (14). Close with quick-coupled cap when J-pipe is not attached
26. fixed ladder to top of storage (see silo manufacturer)
27. safety platform (see silo manufacturer)
28. for extreme cold, add bales to protect from freezing, or locate holding tank and pump indoors

SYN	REVISIONS	CHECKED	DATE	APPROVED

**CANADA FARM BUILDING PLAN SERVICE**

ABOVE-GROUND LIQUID MANURE SILO - TRACTOR PTO PUMP SYSTEM

DESIGNED J.E.T.	DATE SEP-72	PLAN
DRAWN J.M.D. PLANS	REVISED	3250
TRACTOR	SCALE	AS SHOWN
CHECKED H.A.T.		SHEET 1 OF 2

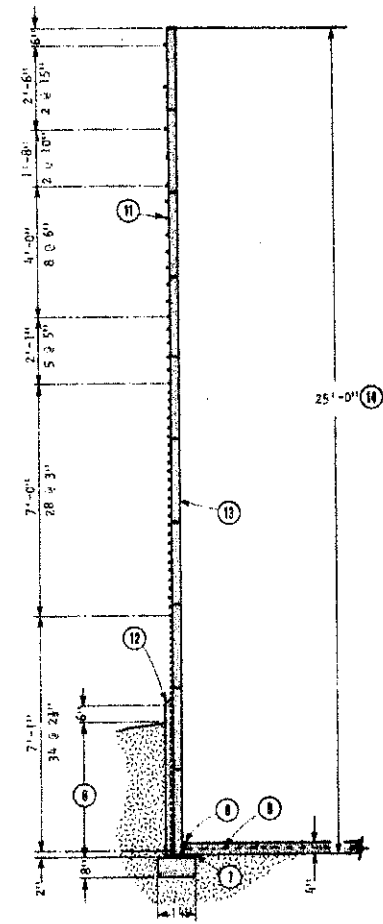
1. cast-in-place concrete silo, 30 ft. dia.
2. concrete stave silo, 30 ft. dia., with A36 steel hoops up to 30'-0" high
3. concrete stave silo, 30 ft. dia., with 1017 steel hoops up to 25'-0" high
4. #3 deformed rebars @ 24" o.c. (vertically)
5. 3/4" # deformed rebars, 60,000 p.s.i. yield (horizontally) min. lap 22"
6. 4'-0" min. or below frost
7. asphalt mastic over trowel finish under wall
8. hot asphalt seal (porous soils only)
9. 6 x 6, 6-6 welded reinforcing mesh, lap joints 6"
10. 9/16" # - A36 steel tie rods
11. 9/16" # - 1017 steel tie rods
12. poured concrete, 3" thick min. (protection for rebars below grade)
13. waterproof plaster coating, bottom to top
14. silo wall height is maximum for rebar spacing as shown. For lower walls, space rebars from the top of the wall

Note: all cast-in-place concrete to be 3000 psi min. cylinder strength @ 28 days

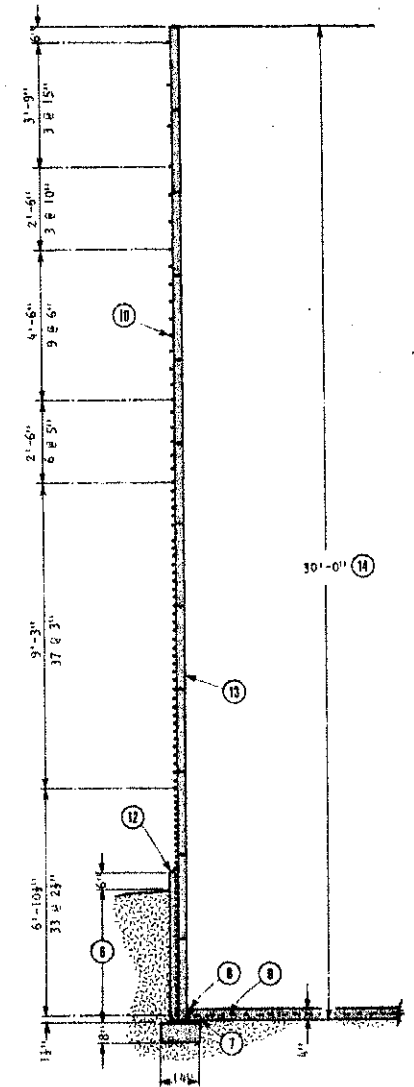
SYM	REVISIONS	CHECKED	DATE	APPROVED

**CANADA** FARM BUILDING PLAN SERVICE  
 ABOVE-GROUND LIQUID MANURE SILO-WALL CONSTRUCTION

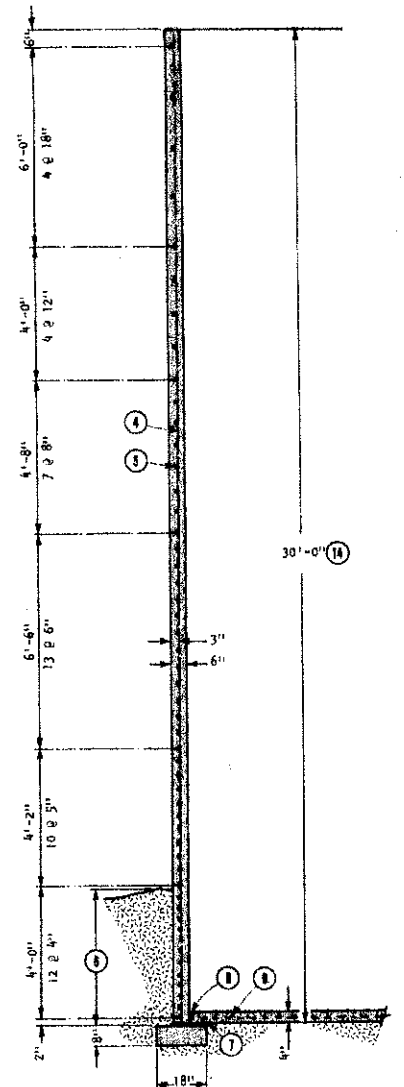
DESIGNED <i>H.A.J.</i>	DATE <i>SEP-72</i>	PLAN <b>3250</b>
DRAWN <i>LEO DLAIS</i>	REVISED	
TRACED	SCALE	AS SHOWN
CHECKED <i>V.E.Z.</i>	SCALE	



1 3/8" = 1'-0"



2 3/8" = 1'-0"



3 3/8" = 1'-0"