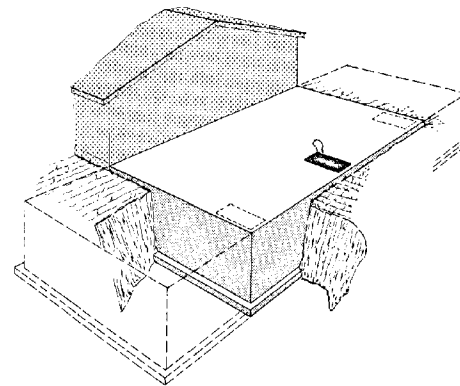
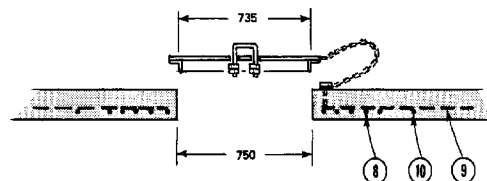
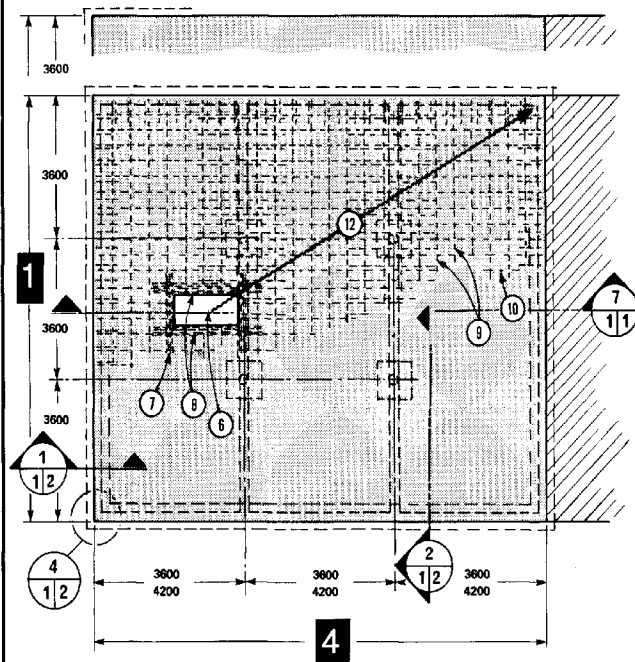
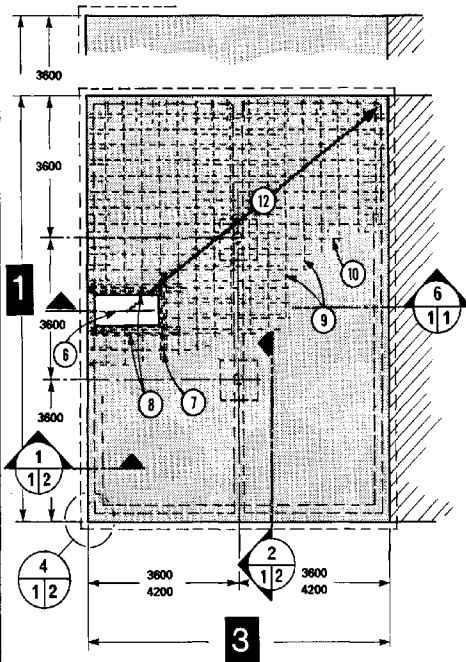
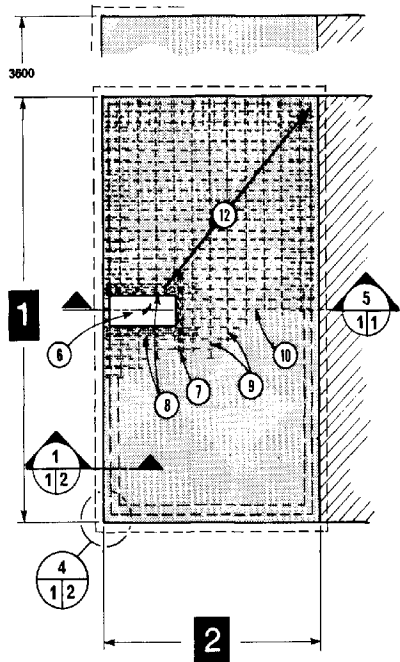


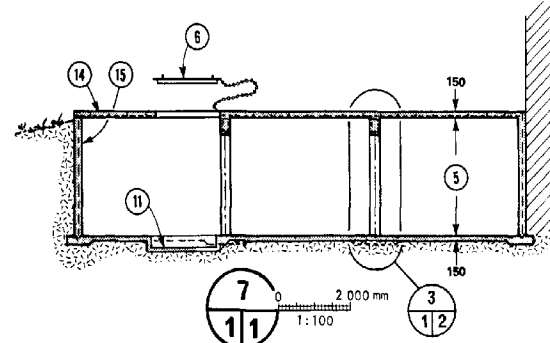
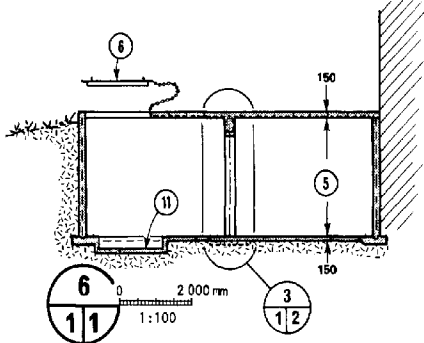
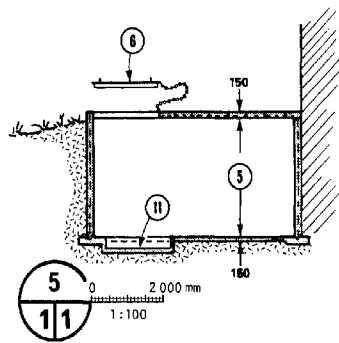
6



- 1 length may vary in multiples of 3600 mm; the maximum length is controlled by (12); for larger tanks use 2 or more pump access ports (6)
- 2 may be 3600, 4200 or 4800 mm span
- 3 2 slab spans of 3600 mm, 7200 mm total or 2 slab spans of 4200 mm, 8400 mm total
- 4 3 slab spans of 3600 mm, 10 800 mm total or 3 slab spans of 4200 mm, 12 600 mm total
- 5 tank depth may be 2400 or 3000 mm
- 6 750 x 1800 mm access port; cover plate 6 mm checkered steel with 50 x 50 x 6 mm steel angle frame (20 kg min. total); safety chain welded to cover and bolted to tank; all steel rust-proof painted; see also detail (6)



- 7 3 - 15M x 2000 mm rebars @ 75 mm oc, 50 mm from bottom of slab, extend 600 mm beyond opening as shown
- 8 4 - 15M x 2400 mm rebars @ 75 mm oc, 38 mm from bottom of slab, locate as shown in addition to (10)
- 9 15M rebars, continuous @ 500 mm oc
- 10 15M rebars, continuous - 450 mm oc for spans of 3600 mm 325 mm oc for spans of 4200 mm 250 mm oc for spans of 4800 mm concrete cover of 50 mm below the rebars
- 11 1800 x 1800 x 300 mm deep sump under each port (6)
- 12 tank dimensions (1), (2), (3), and (4) depend on maximum agitation radius of pump used; typical tractor-powered pumps agitate 7 to 10 m (see manufacturer)
- 13 reinforcing steel to be deformed bars (grade 400); concrete to be 30 MPa @ 28 days, 6% air entrained
- 14 tank covers designed for 3.5 kN/m² dead load and 4.8 kN/m² live load, based on typical snow loads and animal traffic, NOT WHEEL LOADS SUCH AS MANURE TANKERS OR LOADED TRUCKS
- 15 tank walls designed for soil water-saturated to full wall height; DO NOT DRIVE LOADED MANURE TANKERS OR TRUCKS CLOSE TO TANK WHEN SOIL IS WET



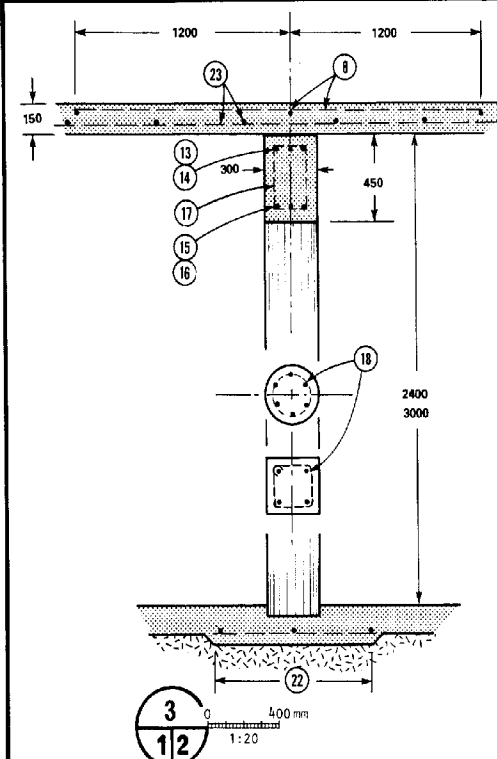
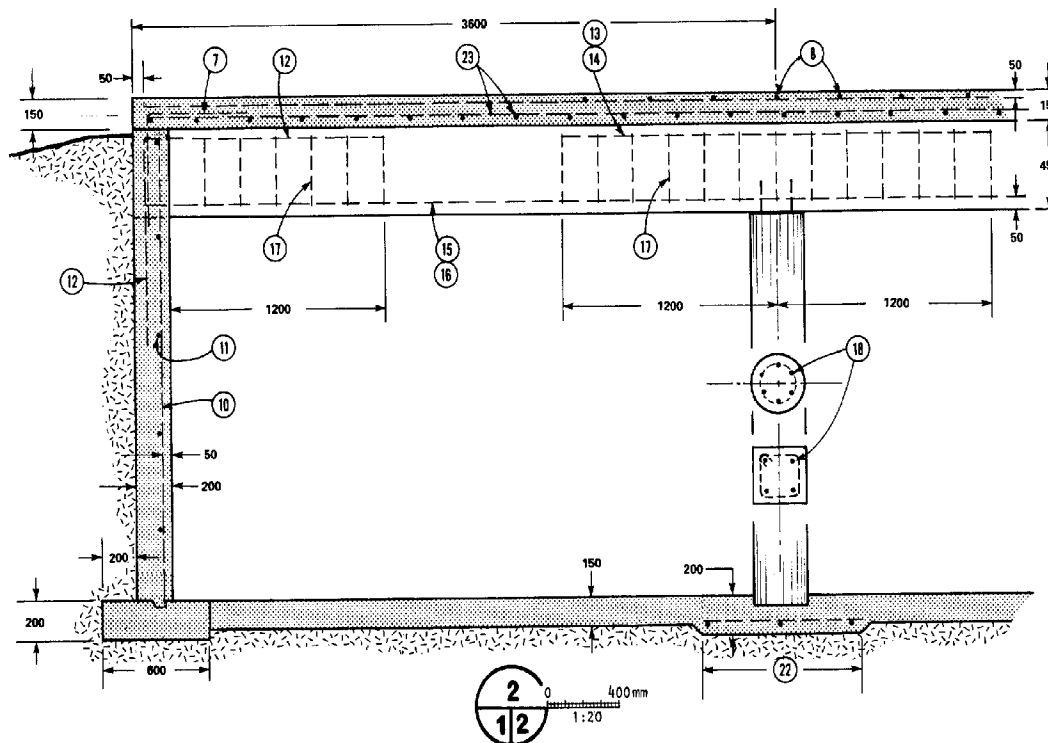
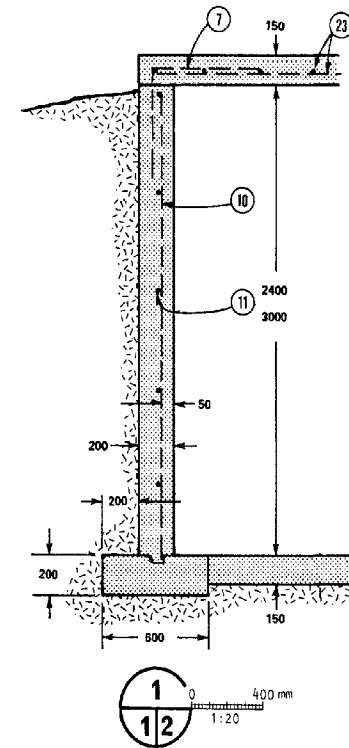
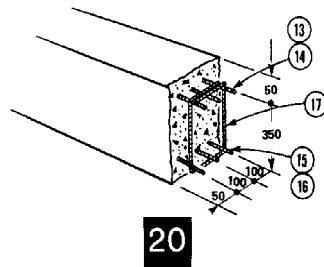
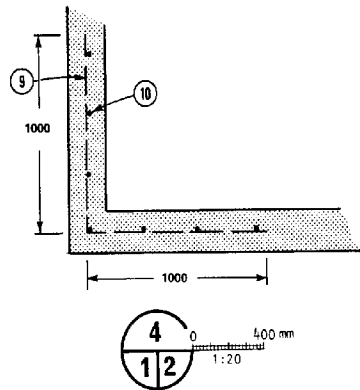
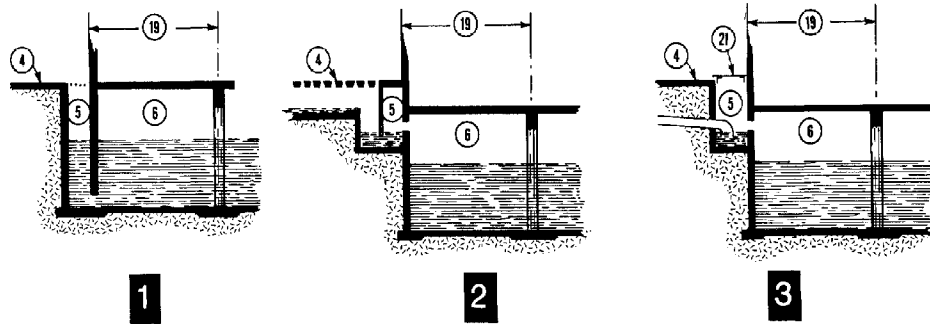
WARNING
This plan may require structural and other changes to meet local site conditions, climatic loads, user requirements and applicable building regulations (such as the Canadian Farm Building Code). Before construction, the user of this plan is responsible to ensure that all required changes are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

SYN	revised & re-issued	DATE	83-01	APPROVED
	REVISIONS	CHECKED	DATE	

CONCRETE COVERED RECTANGULAR MANURE TANKS

DESIGNED	DIM	DATE	83-01	PLAN	M-10712
DRAWN	Blais/Morden	REVISED	83-08		
TRACED		DETAIL NUMBER	A		
CHECKED	JET	ORIGINATES ON SHEET	B		
		DRAWN ON SHEET	C		

SHEET 1 OF 2



- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE SPECIFIED
- gas trap for scrape-alley system
 - gas trap for continuous-flow system
 - gas trap for gravity-flush system
 - floor level of building
 - gas trap box
 - manure tank
 - 15M x 1800 mm L shaped rebars;
for 3600 mm span slab space @ 450 mm oc
for 4200 mm span slab space @ 350 mm oc
for 4800 mm span slab space @ 300 mm oc
 - 15M x 2400 mm rebars over beams;
for 3600 mm span slab space @ 350 mm oc
for 4200 mm span slab space @ 250 mm oc
held in place with 3 - 15M rebars across
 - 15M x 2000 mm horizontal L-shaped rebars
at corners @ 500 mm oc
 - 15M vertical rebars,
space at 500 mm for 2400 mm wall heights
space at 300 mm for 3000 mm wall heights
 - 15M horizontal temperature rebars,
spaced @ 500 mm for 2400 and 3000 mm
wall heights
 - 15M x 2400 mm L rebars, 3 bars at each
end of each beam
 - 2 - 15M x 2400 mm rebars, centered over
column for span 19 = 3600 mm
 - 3 - 15M x 2400 mm rebars, centered over
column for slab span 19 = 4200 mm
 - 2 - 15M rebars, continuous for 3600 mm
slab span
 - 3 - 15M rebars, continuous for 4200 mm
slab span
 - 10M stirrups @ 200 mm
 - 300 mm dia. columns @ 3600 mm oc, with
10M spiral @ 75 mm oc and 6-10M vertical
rebars embedded 150 mm into beam above;
or column may be made 300 mm square and
reinforced with 4 - 10M vertical rebars;
form pocket 44 mm deep into floor slab
to locate bottom of column
 - slab span 3600 or 4200 mm
 - typical stirrup and longitudinal
reinforcement in beam
 - air tight cover plate
 - soil safe bearing pressure, kN/m²
- | soil safe bearing pressure, kN/m ² | square footing width mm | rebars each way |
|---|-------------------------|-----------------|
| 100 | 1400 | 4-15M |
| 150 | 1100 | 3-15M |
| 200 | 1000 | 3-15M |
- see sheet 1, notes 9 & 10

revised & re-issued		D.I.M.	83-08
S.V.M.	REVISIONS	CHECKED	DATE
DESIGNED D.I.M.		DATE 83-01	PLAN M-10712
DRAWN Blain/Morden		REVISED 83-08	
TRACED		DETAIL NUMBER	
CHECKED J.E.T.		ORIGINATES ON SHEET	
		DRAWN ON SHEET	

STRUCTURAL DETAILS

SHEET 2 OF 2