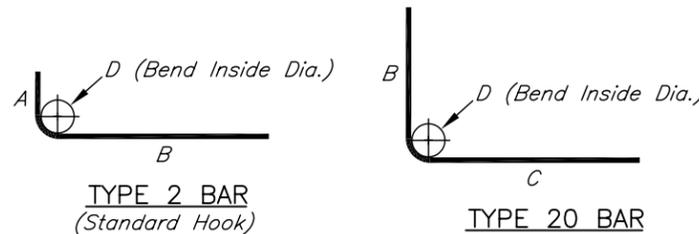
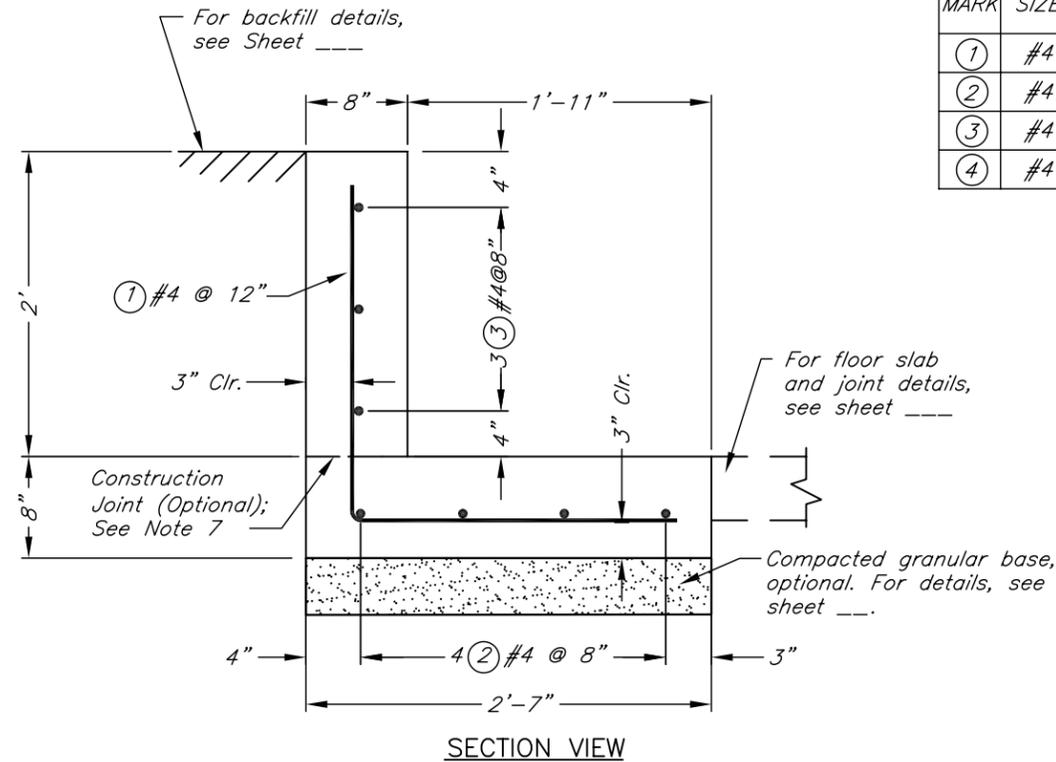


STEEL SCHEDULE

MARK	SIZE	QUANTITY	TYPE	A	B	C	LENGTH	TOTAL LENGTH
①	#4	20	---	---	2'-2"	2'-2"	4'-4"	
②	#4		STR	---	---	---		
③	#4		STR	---	---	---		
④	#4	2		0'-8"	3'-4"	---	4'-0"	
#4 Bars Total Length								



STEEL DETAILS

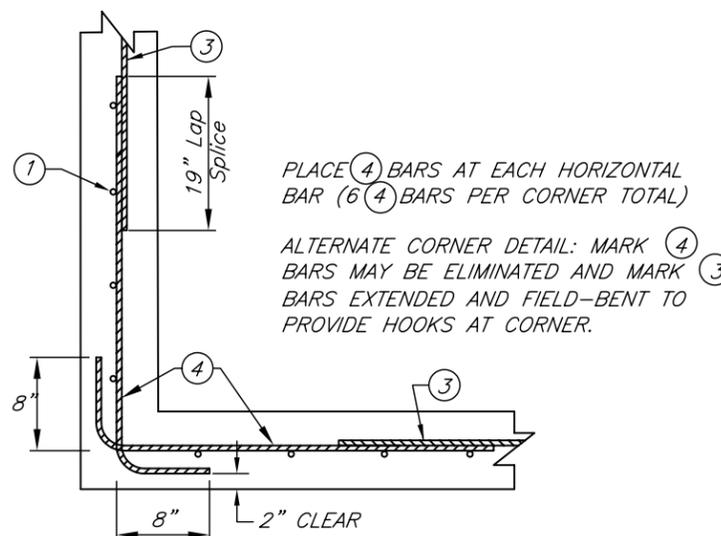
BAR SIZE	INSIDE BEND DIAMETER (D) INCHES	LONGITUDINAL STEEL LAP SPLICE LENGTH, INCHES (MIN.)	
		Wall bars	Footing bars
#4	3	19	16

Total length of wall (measured along ϕ wall) = _____ ft.

ESTIMATED QUANTITIES

CONCRETE (0.113 CU.YD./FT OF WALL)=_____ CU.YD.
 STEEL #4 BARS (0.668 LB./FT.)=_____ LB.

Steel quantity include splice lengths? Y__ N__



CONDITIONS OF USE

Allowable backfill height = 0 to 2 ft
 Soil backfill type = low to medium PI silts and clays, with 50% or more fines
 Water table below footing
 Machinery surcharge load NOT allowed for backfill height greater than 1 ft
 Not designed to support buildings or roofs

MATERIALS

Concrete compressive strength = 4,000 psi
 Reinforcing steel may be Grade 40 or 60.
 Concrete and reinforcing steel shall meet requirements of Construction Specification IA-31.

WALL DESIGN LOADINGS

Manure load inside = 65 psf/ft EFP (Equivalent Fluid Pressure)
 Soil backfill density = 110 pcf
 Soil backfill load = 85 psf/ft EFP

WALL SLIDING RESTRAINT REQUIREMENTS

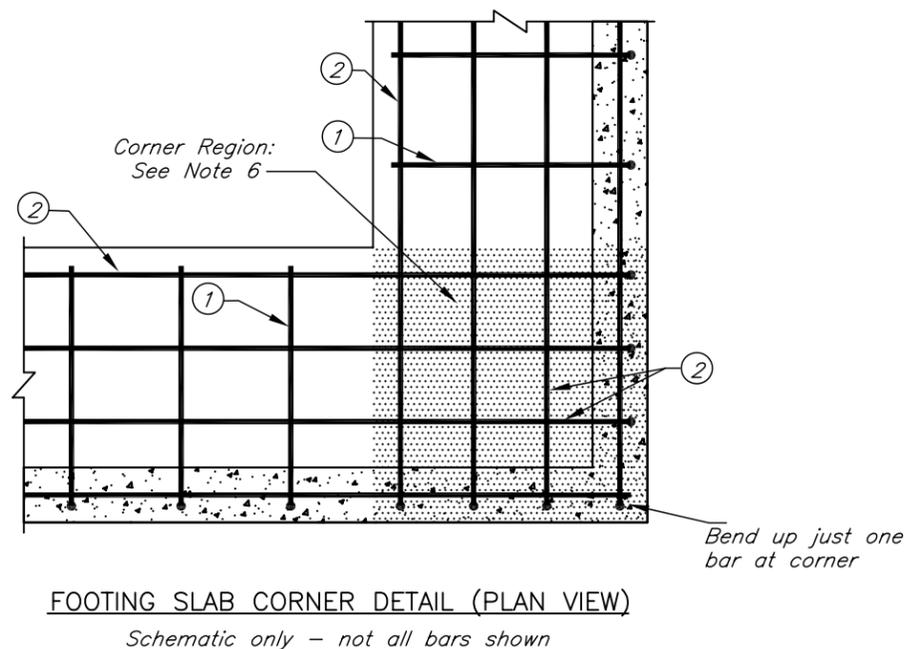
Assumptions:
 5-inch thick floor slab, factor of safety against sliding 1.5
 Coefficient of friction (soil/concrete) = 0.25 (wet, medium to dense clay foundation)
 No surcharge

Backfill Height, ft.	Min. Floor Slab Length, ft.*
2	23
1	4
0	0

* Min. floor slab length for restraint is not required if L-wall forms a tank with opposing wall having approximately the same backfill height.

GENERAL DESIGN NOTES

- Design loadings and soil pressures based upon criteria found in Conservation Practice Standard 313 (Waste Storage Facility).
- Drainage shall be away from the wall.
- Backfill to top of wall is recommended for frost protection.
- Mark ② and ③ bars shall extend to 2 to 3 inches from edge of concrete at ends of straight wall sections.
- Mark ① bars shall be placed a maximum of 6 inches from wall end.
- Footing slab reinforcement at corners (see detail): extend Mark 2 (longitudinal) bars into Corner Region from both sides of corner and field-bend to extend up into wall same distance as Mark ① bars. Discontinue Mark ① bars in Corner Region.
- Construction joint, if used, shall be completed as described in Construction Specification IA-31. Surface of construction joint shall be roughened to approximately 1/4" depth. Or, slab and wall may be poured at the same time, eliminating the need for a construction joint.



NOT TO SCALE

STANDARD DWG. NO. IA-1668

DATE 03/08 SHEET 1 OF 1

Date: 07/08
 Designed: JGibbs
 Drawn: JGibbs
 Checked: _____
 Approved: _____

2-FT HIGH REINFORCED CONCRETE "L" WALL
 0' TO 2' CL BACKFILL, NO SURCHARGE
 8" WALL THICKNESS



File No. IA-1668.dwg

Drawing No. _____

Sheet of _____