

ESTIMATED QUANTITIES

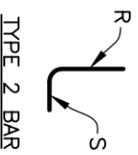
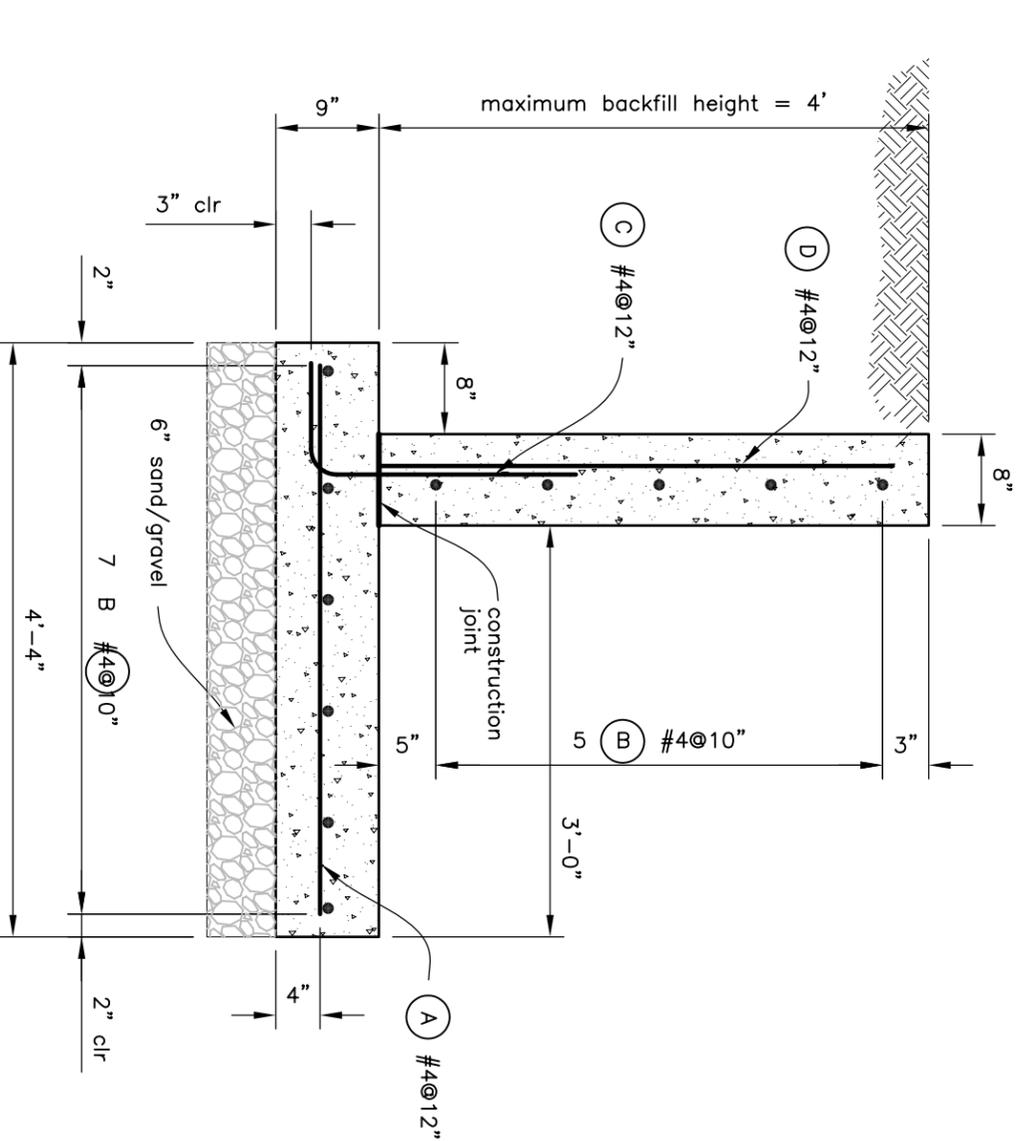
Concrete	(0.22 cu. yds./lin. ft.)	_____	cu. yds.
Steel	(22.24 ft./lin. ft.)	_____	ft.
Steel	(35.0 ft./corner)	_____	ft.

- * Concrete will meet Oregon Concrete Specification 41.
- * Minimum splice length for all #4 bars is 16 inches.
- * Steel quantity does not include splice lengths.
- * Substitution of grade 60 bars is permitted.

CONDITIONS OF USE
 Backfill = 0 to 4 feet
 No Surcharge
 Soil EFP = 60 or 85

Total length of wall _____ ft.

- * For frost protection, a 2 ft. backfill is recommended.
- * Dimensions are to the reinforcing bar surface.

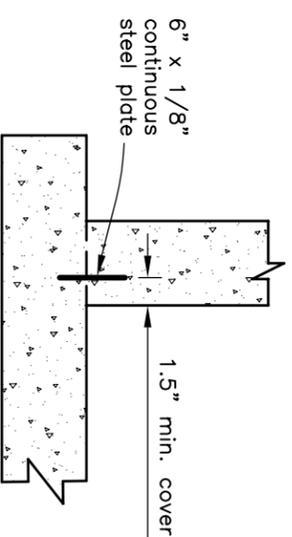


STEEL SCHEDULE

MARK	SIZE	QUAN	TYPE	R	S	LENGTH	TOTAL LENGTH
A	4		STR	---	---	5'-0"	
B	4		STR	---	---		
* C	4		2	2'-0"	9"	2'-9"	
* D	4		STR	---	---	3'-9"	
L	4		2	2'-0"	9"	2'-9"	
L1	4		STR	---	---	3'-9"	

#4 bars, TOTAL LENGTH

- * Mark C & D bars may be combined to avoid splice.
- Then Mark C bar is 4'-3" x 9"
- Mark L & L1 bars not shown - see wall corner detail.



CONSTRUCTION JOINT OPTIONS

- * Sandblasting or air-water cutting
- * Steel plate

DESIGN NOTES

- * Drainage shall be away for the wall.
- * The minimum top width of the backfill against the wall shall be equal to or greater than the backfill height.
- * Maximum footing contact pressure is 800 psf/ft.

DESIGN STRENGTH: Working stress design

Concrete $f_c = 3,500$ psi $f_c = 1,400$ psi $f_s = 20,000$ psi (40 grade)

WALL DESIGN LOADING: 313 Standard - Lateral earth pressure values (See Section IV of the Field Office Technical Guide)

- * Manure load inside = 65 psf/ft
- * Soil backfill load outside = 60 psf/ft or 85 psf/ft
- * No horizontal surcharge added
- * Soil backfill density = 110 pcf

WALL RESTRAINT REQUIREMENTS:

5 inch thick slab, safety factor against sliding 1.5 minimum

Backfill height (outside load)	Slab length (no inside load)	Lab length (full inside load)
4 ft	27 ft	no slab
3 ft	11 ft	no slab
2 ft	no slab	no slab
1 ft	no slab	2 ft **
0 ft	no slab	2 ft **

** Minimum slab length of 2 feet required and must be tied into the wall footing.

- Slab poured with wall footing:
 - #3 bars @ 18" spacing (minimum reinforcement)
- Slab not poured with wall footing:
 - #3 dowel bars - 3'-0" length @ 9'-0" spacing.

This drawing requires supporting technical documentation prior to use and must be adapted to the specific site.

4 FOOT WALL

ANIMAL WASTE

Designed	_____	Date	3/2005
Drawn	_____		
Checked	_____		
Approved	_____		
Title	_____		



File Name: OR_4FT_WALL.ORG
 Drawing No. _____