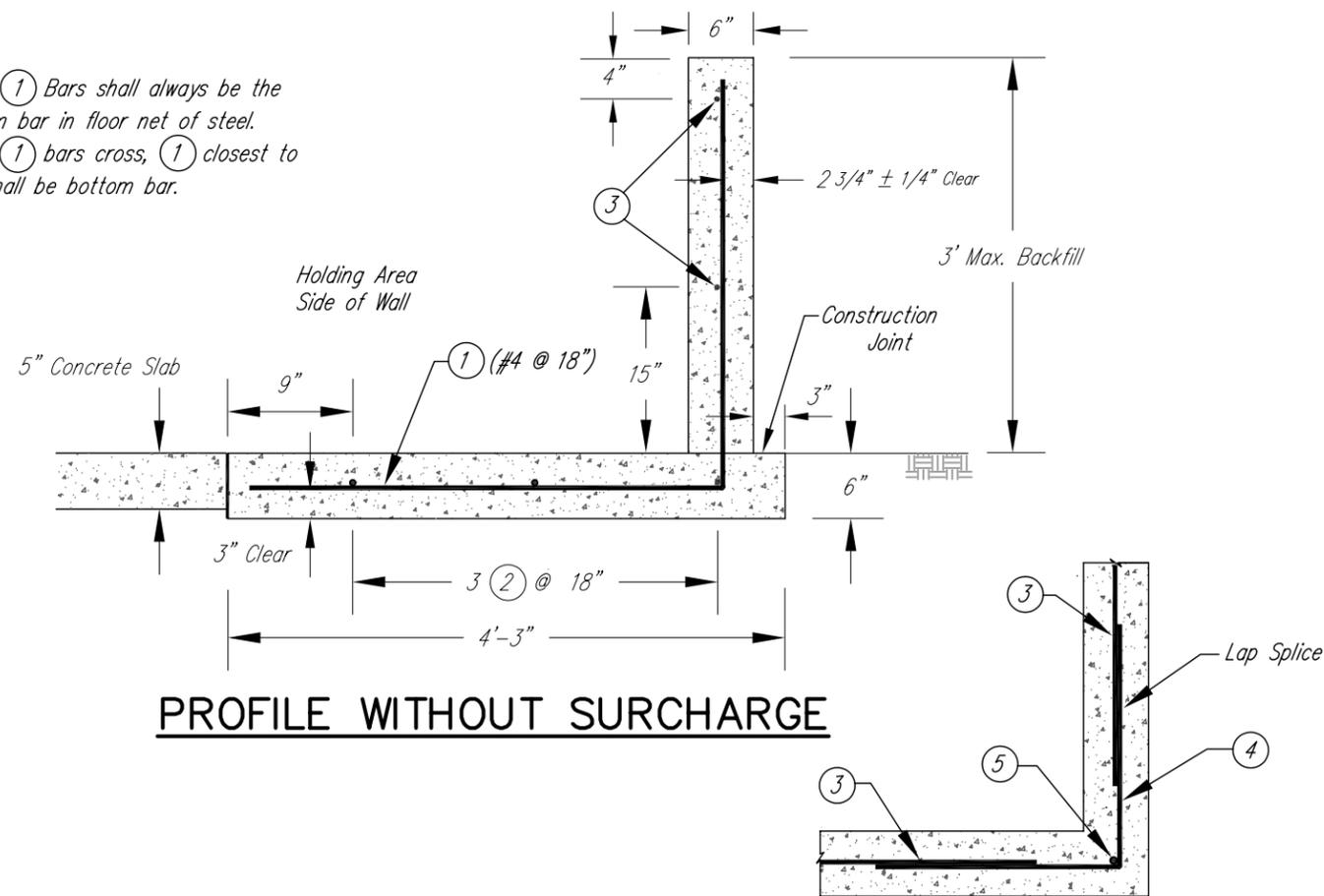


**PROFILE WITH SURCHARGE**

Note: ① Bars shall always be the bottom bar in floor net of steel. Where ① bars cross, ① closest to wall shall be bottom bar.



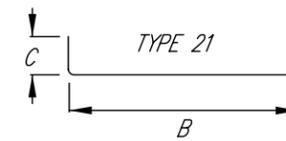
**PROFILE WITHOUT SURCHARGE**

**PLAN VIEW  
WALL AND CORNER DETAIL**

Dimensions in inches or feet-inches

NOT TO SCALE

STRAIGHT  
TYPE 1



**BAR SCHEDULE**

MARK	SIZE	QUANTITY	LENGTH	TOTAL LENGTH	TYPE	B	C	LOCATION
1	#4				21		3'-0"	Footing/wall
2	#4, #5, or #6				1			Footing
3	#4, #5 or #6				1			Wall
4	#4		5'-0"		21	2'-6"	2'-6"	Wall corner
5	#4		2'-10"		1			Wall corner tie bar

Note: For wall without surcharge - Mark 1 length = 6'-6", B = 3'-6"  
For wall with surcharge - Mark 1 length = 7'-6", B = 4'-6"

**NOTES:**

**FOUNDATION AND BACKFILL**

- Backfill to the outside of the walls with granular non-cohesive material. Backfill in horizontal layers not exceeding 4 inches in thickness before compaction.

**CONCRETE**

- Concrete shall conform to the requirements of Construction Specification MI-158, Reinforced Concrete.
- Construction joints shall be left rough and wetted before concrete placement.

**REINFORCING STEEL**

- Steel reinforcement shall conform to the requirements of Construction Specification MI-158. Grade 40 or better reinforcing steel is required.
- Specified bar dimensions are measured to outside edge of all bends.
- Radius of bend equals 3 bar diameters.
- For unjointed wall sections or sections less than 50 feet, use size #4 @ 18" for ② and ③. For unjointed wall lengths of 50 to 80 feet, use size #5 @ 18 in. for ② and ③. For wall lengths over 80 and up to 110 feet, use #6 @ 18 in. for ② and ③.
- Minimum Lap Splice: 15 in. for #4  
19 in. for #5  
23 in. for #6

**DESIGN ASSUMPTIONS**

- Wall backfill side loading: 60 psf/ft. depth + surcharge @ 100 psf. (Granular soil material)
- Holding area side loading: 80 psf/ft. depth.
- Structure drainage condition: Full drainage behind wall.
- Concrete:  $f'_c = 3,500$  psi; Reinforcing steel:  $f_s = 40$  ksi.
- Minimum soil bearing capacity : 1000 psf.

MICHIGAN ENGINEERING STANDARD DRAWING	
FILE NAME	MI-603-B 1-06.dwg
STANDARD DWG. NO.	MI-603-B
DATE	1-06
SHEET	1 OF 1

3 FOOT REINFORCED CONCRETE WALL



Date	
Designed	
Drawn	
Checked	
Approved	
File Name	
Drawing Name	
Sheet	of

Co., Michigan  
Township, T. -R., Sec.