

# BUILDBLOCK BUILDING SYSTEMS GLOBALBLOCK ENGINEERING TABLES

## 6" GLOBALBLOCK SCREEN GRID FORM 10-Foot High Basement Wall Vertical (Grade 60) Rebar Requirements\*

UNBALANCED BACKFILL DEPTH	BACKFILL EQUIVALENT FLUID DENSITY		
	30 PCF	45 PCF	60 PCF
5 ft.	#3@12"; #4@24"; #5@36";#6@48"	#3@12";#4@24"; #5@36";#6@48"	#4@12";#5@12" ;#6@24"
5.5 ft.	#3@12"; #4@24"; #5@36";#6@48"	#4@12"; #5@24";#6@36"	#4@12";#5@12" ;#6@24"
6 ft.	#3@12"; #4@12"; #5@24";#6@36"	#4@12";@5@12" ;#6@24"	#5@12" ;#6@12"
6.5 ft.	#4@12"; #5@24";#6@24"	#5@12" ;#6@12"	#5@12" ;#6@12"
7 ft.	#4@12"; #5@12";#6@24"	#5@12" ;#6@12"	#6 @ 12" (fc=3,000 psi)
7.5 ft.	#4@12"; #5@12";#6@12"	#5@12";#6@12" (fc=3,000 psi)	#5@12"(d=6.25") (fc=3,000 psi)
8 ft.	#5@12" ;#6@12"	#6 @ 12" (fc=3,000 psi)	#5@12"(d=6.25") (fc=3,000 psi)
8.5 ft.	#5@12" ;#6@12"	#5@12" (d=6.25") (fc=3,000 psi)	#5@12"(d=6.25") (fc=3,000 psi)
9 ft.	#6@12"	#5@12" (d=6.25") (fc=3,000 psi)	#6@12"(d=6.25") (fc=3,000 psi)
9.5 ft.	#6@12"	#5@12" (d=6.25") (fc=3,000 psi)	#6@12"(d=6.25") (fc=3,000 psi)
10 ft.	#6@12"	#5@12" (d=6.25") (fc=3,000 psi)	#6@12"(d=6.25") (fc=3,000 psi)

### \*MINIMUM REBAR REQUIREMENTS

- If the basement wall is NOT supporting an above grade wall in Seismic Design areas: Vertical rebar size and spacing per table above. Minimum horizontal rebar is #4@32" o.c.
- Vertical rebar size and spacing shall match the above grade all reinforcement if more restrictive.

### NOTES

1. This table is based on the design criteria of ACI 318-08 "Building Code Requirements for Structural Concrete"
2. The reinforcement requirements listed in this table are based on Grade 60 (ASTM A 615 or ASTM A 996) rebar and 2,500 psi concrete
3. This table assumes the vertical rebar is placed in the center of the 11" thick GlobalBlock wall (D=4.625), unless otherwise noted with an offset dimension ("d") measured from the outside edge of form (backfill side of the wall.)
4. The basement floor must be poured and the first floor in place before the backfilling.
5. The floor or roof system supporting the top of the basement wall and the connection to the top of the basement wall, must be specifically designed to provide the necessary strength to resist the horizontal reaction or force developed at the top of the basement wall by the lateral loads exerted on the wall by the backfill.
6. Concrete must cure a minimum of 7 days before backfilling.
7. Backfill should be well drained.
8. Refer to the BuildBlock Installation Manual for proper basement drainage and waterproofing systems.

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