ENGINEERED CONCRETE BLOCK BASEMENTS

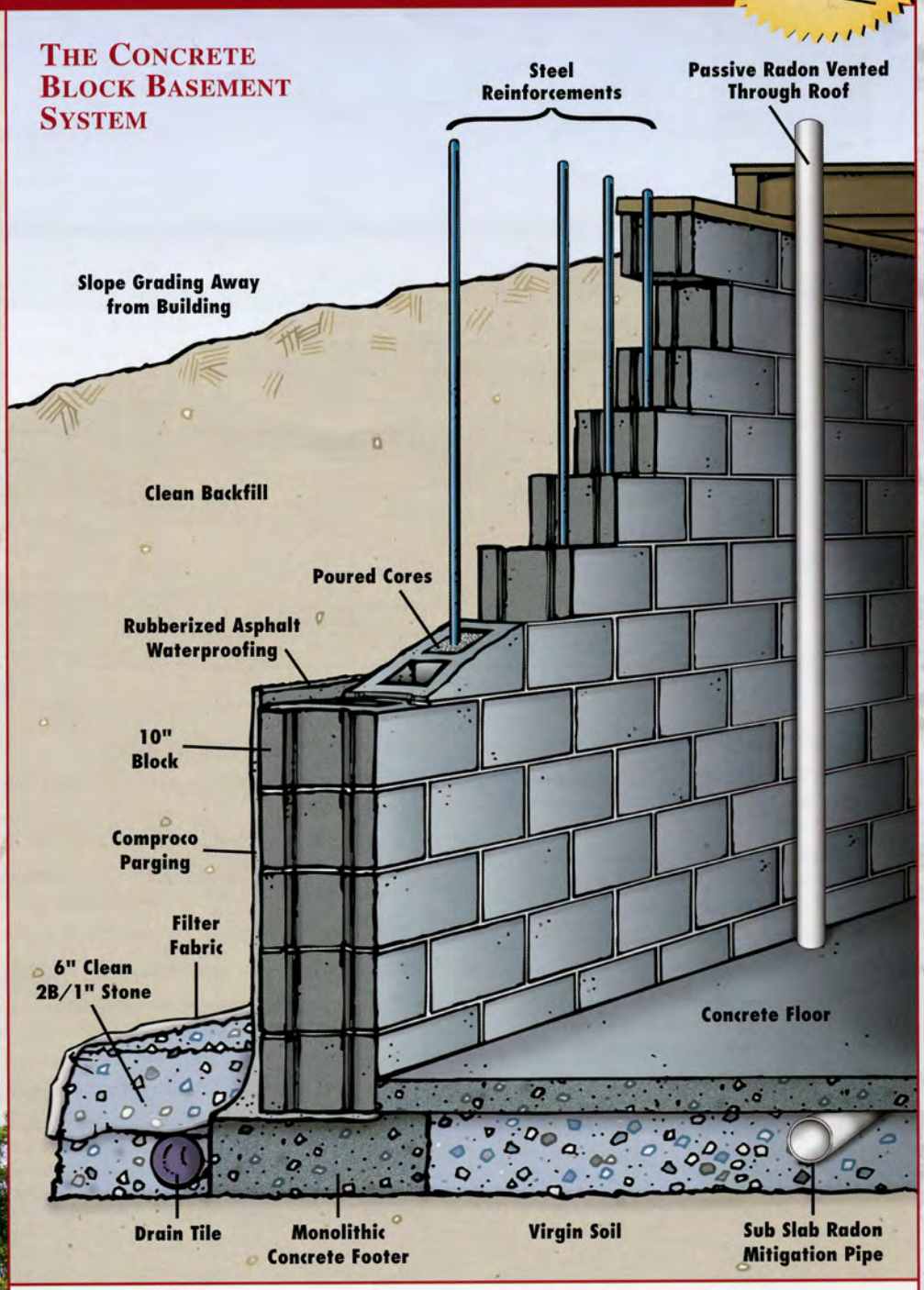
THE INDUSTRY STANDARD!

WARM! DRY! COST-EFFECTIVE! STRONG!

FEATURES & BENEFITS OF BLOCK

- Concrete footer offers strength and stability for the wall.
- Rubberized asphalt coating waterproofing system produces a dry, comfortable basement.
- Poured cores with steel reinforcement insure the integrity of the wall and exceed the engineering requirements for the IRC state building code.
- Block offers flexibility for the various site conditions, wall heights, and designs.
- Typical site cost can be maintained with normal backfill requirements.
- Block is the most cost-effective alternative for basements.
- Prompt delivery.
- Provides for year-round construction.
- Additional frame bracing not required.
- Easy conversion of the basement into living space in the future.

THE CONCRETE BLOCK BASEMENT SYSTEM



FINE LINE homes

BEAVERTOWN BLOCK CO., INC.
Est.1922

BLOCKS BUILD BETTER BASEMENTS!

10 INCH CMU BASEMENT WALL DESIGNS

CMU Thickness	Wall Height	Soil Backfill Height	Soil Equivalent Fluid-Weight = 35 pcf	Soil Equivalent Fluid-Weight = 60 pcf
10 inches	7'-8"	7'-8"	#6 @ 56" or #5 @ 48"	#6 @ 32" or #7 @ 48"
10 inches	7'-8"	7'-4"	#6 @ 56" or #5 @ 48"	#6 @ 40" or #7 @ 56"
10 inches	7'-8"	7'-0"	#5 @ 56"	#6 @ 40" or #7 @ 56"
10 inches	7'-8"	6'-6"	#5 @ 56"	#6 @ 48"
10 inches	7'-8"	6'-0"	#5 @ 56"	#6 @ 56"
10 inches	7'-8"	5'-6"	#5 @ 56"	#6 @ 56"
10 inches	7'-8"	5'-0"	#5 @ 56"	#6 @ 56"
10 inches	7'-8"	4'-6"	#5 @ 56"	#6 @ 56"
10 inches	7'-8"	4'-0"	Reinforcing not required	#6 @ 56"
10 inches	7'-8"	3'-6"	Reinforcing not required	#6 @ 56"
10 inches	7'-8"	3'-0"	Reinforcing not required	Reinforcing not required

CMU Thickness	Wall Height	Soil Backfill Height	Soil Equivalent Fluid-Weight = 35 pcf	Soil Equivalent Fluid-Weight = 60 pcf
10 inches	8'-4"	8'-0"	#6 @ 56"	#6 @ 32"
10 inches	8'-4"	7'-8"	#6 @ 56"	#6 @ 32" or #7 @ 48"
10 inches	8'-4"	7'-4"	#6 @ 56"	#6 @ 40" or #7 @ 48"
10 inches	8'-4"	7'-0"	#6 @ 56"	#6 @ 40" or #7 @ 56"
10 inches	8'-4"	6'-6"	#6 @ 56"	#6 @ 48" or #7 @ 56"
10 inches	8'-4"	6'-0"	#6 @ 56"	#6 @ 56"
10 inches	8'-4"	5'-6"	#6 @ 56"	#6 @ 56"
10 inches	8'-4"	5'-0"	#6 @ 56"	#6 @ 56"
10 inches	8'-4"	4'-6"	#6 @ 56"	#6 @ 56"
10 inches	8'-4"	4'-0"	Reinforcing not required	#6 @ 56"
10 inches	8'-4"	3'-6"	Reinforcing not required	#6 @ 56"
10 inches	8'-4"	3'-0"	Reinforcing not required	Reinforcing not required

Table Notes:

1) Wall heights shown are to top of wall as measured from the basement floor slab surface.

2) "Soil Backfill Height" in above tables is the vertical distance from surface of basement floor slab to the surface of the soil backfill.

3) Surface grade of the retained soil is assumed to be approximately level.

4) It is assumed that the center of all reinforcing bars will be exactly positioned at 7" from the retained earth (outside) face of the wall.

5) Strength of the masonry, *f'm* is assumed to be no less than 1,500 pounds per square inch (psi), except when required reinforcing is marked with an asterisk (*). Where so marked, *f'm* must be no less than 2,000 psi.

General Notes & Design Data:

1) All 10" concrete masonry units shall comply with ASTM C90-96 with minimum face shell thickness of 1-3/8".

2) Reinforcing bars shall conform to ASTM A615, Grade 60.

3) Wall design complies with ACI 530-95 Building Code Requirements & Specifications for Masonry Structures. "Working Stress Design" method was used for these designs.

4) Mortar shall comply with ASTM C270, Type M or S.

5) Grout shall comply with ASTM C476-91.

6) Vertical (axial) building loads on the wall were assumed to cause negligible compressive stresses in the above designs and were not considered.

7) Surcharge loads on the backfill soil were not considered in these designs. Heavy equipment and vehicles must be prohibited from imposing loads on the top of the retained "soil backfill."

8) At outside corners of the wall, start/stop the recommended wall spacing at approximately 1/2 the recommended spacing. A reinforcing bar is not required in the corner at outside corners. At inside corners, continue pacing reinforcing at the recommended spacing as though it was a straight wall, ignoring the corner condition, even if the recommended spacing causes a bar to be placed in, or very near, a corner.

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