## SOUND WALL - DESIGN WEIGHT - CONCRETE MASONRY BLOCK

Indicated in the table below are suggested weights that can be used in determining the dead load of medium weight masonry block walls. These weights are average values for completed walls of various thickness and are shown in pounds per square foot of wall surface area. The values shown include the weight of the masonry units plus allowances for the weight of the grout in the cells and bond beams and the weight of the mortar between units.

| CELLS | WALL THICKNESS | | |
|---|---|---|---|
| | 6" | 8" | 12" |
| Ungrouted | 37 | 45 | 66 |
| Grouted @ 32" | 47 | 62 | 92 |
| Grouted @ 24" | 49 | 65 | 97 |
| Grouted @ 16" | 53 | 71 | 106 |
| Solid Grouted | 64 | 88 | 132 |

In determining the weights, the following values were assumed: Unit weight of concrete masonry - 125 PCF, unit weight of grout and mortar - 140 PCF, bond beam spacing - 4'-0" and a 4% weight increase allowance to the unit weight for manufacturing variations.

The table values will be appropriate for most of the typical block types now being used for sound walls. Designers are cautioned, however, to verify the weight of fluted or scored units that have thickened face shells, 12" wide block units with undersized cells or any special units with face shell and web thicknesses that vary substantially from the minimum thickness requirements of ASTM C 90.

Philip C Warriner

Guy D. Mancarti

RWB/mkp

Supersedes Memo to Designers 22-55 dated April 1982