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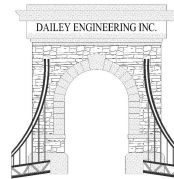


TABLE 1A

8" CMU – EXTERNALLY BRACED ALLOWABLE WALL HEIGHTS (INTERMEDIATE PERIOD)
(See Figure 1)

| Bars Centered | | Type M or S Mortar | | $f'_m = 1500$ psi ($f'_i = 750$ psi) (Note 1) | |
|--------------------------|---------------------------|---|--------------------------------------|--|--|
| Rebar Size (Grade 60) | Rebar Spacing (Inches) | Brace Height (Also Max. Unsupported Height Above Footing or Line of Support) | Maximum Height Above Top of Brace | Maximum Total Wall Height | |
| #4 | 8 | 22'-0" | 12'-8" | 34'-8" | |
| | 16 | 20'-0" | 11'-4" | 31'-4" | |
| | 24 | 18'-8" | 10'-8" | 29'-4" | |
| | 32 | 18'-0" | 10'-0" | 28'-0" | |
| | 40 | 16'-0" | 8'-8" | 24'-8" | |
| | 48 | 14'-8" | 8'-0" | 22'-8" | |
| #5 | 8 | 23'-4" | 13'-4" | 36'-8" | |
| | 16 | 21'-4" | 12'-0" | 33'-4" | |
| | 24 | 20'-0" | 11'-4" | 31'-4" | |
| | 32 | 19'-4" | 10'-8" | 30'-0" | |
| | 40 | 18'-8" | 10'-0" | 28'-8" | |
| | 48 | 18'-0" | 10'-0" | 28'-0" | |
| #6 | 8 | 24'-0" | 13'-4" | 37'-4" | |
| | 16 | 22'-0" | 12'-0" | 34'-0" | |
| | 24 | 20'-8" | 11'-4" | 32'-0" | |
| | 32 | 20'-0" | 11'-4" | 31'-4" | |
| | 40 | 19'-4" | 10'-8" | 30'-0" | |
| | 48 | 18'-8" | 10'-8" | 29'-4" | |

Notes

1) An $f'_m = 1500$ psi is achieved simply by specifying block to be in accordance with ASTM C90 and limiting mortar to Type M or S. (Per ASTM C90, the minimum concrete masonry unit compressive strength is 1900 psi on the net area.)

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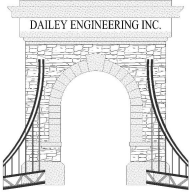


TABLE 1B

8" CMU – EXTERNALLY BRACED WALL HEIGHTS (INTERMEDIATE PERIOD)

(See Figure 1)

| Bars Centered | | Type M or S Mortar | f'm = 2000 psi (f'i = 1000 psi) (Note 1) | |
|--------------------------|---------------------------|---|--|------------------------------|
| Rebar Size (Grade 60) | Rebar Spacing (Inches) | Brace Height (Also Max. Unsupported Height Above Footing or Line of Support) | Maximum Height Above Top of Brace | Maximum Total Wall Height |
| #4 | 8 | 24'-8" | 14'-0" | 38'-8" |
| | 16 | 22'-0" | 12'-8" | 34'-8" |
| | 24 | 20'-8" | 11'-4" | 31'-4" |
| | 32 | 18'-0" | 10'-0" | 28'-0" |
| | 40 | 16'-0" | 9'-4" | 25'-4" |
| | 48 | 15'-4" | 8'-0" | 23'-4" |
| #5 | 8 | 26'-0" | 14'-8" | 40'-8" |
| | 16 | 23'-8" | 13'-4" | 37'-0" |
| | 24 | 22'-0" | 12'-8" | 34'-8" |
| | 32 | 21'-4" | 12'-0" | 33'-4" |
| | 40 | 20'-0" | 11'-4" | 31'-4" |
| | 48 | 18'-0" | 10'-0" | 28'-0" |
| #6 | 8 | 27'-4" | 15'-4" | 42'-8" |
| | 16 | 24'-8" | 14'-0" | 38'-8" |
| | 24 | 23'-4" | 13'-4" | 36'-8" |
| | 32 | 22'-8" | 12'-8" | 35'-4" |
| | 40 | 22'-0" | 12'-0" | 34'-0" |
| | 48 | 20'-8" | 12'-0" | 32'-8" |

Note 1

1) An f'm = 2000 psi may be achieved by either of these methods:

- a) Prism test method (reference ASTM C1314)
- b) Unit Strength method: Compressive strength of the concrete masonry units shall be 2,800 psi minimum on the net area.

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TABLE 1C

12" CMU – ALLOWABLE WALL HEIGHTS (INTERMEDIATE PERIOD)

(See Figure 1)

| Bars Centered | | Type M or S Mortar | | |
|--------------------------|---------------------------|--|--------------------------------------|------------------------------|
| Rebar Size (Grade 60) | Rebar Spacing (Inches) | Brace Height (Also Max. Unsupported Height Above Footing or Line of Support) | Maximum Height Above Top of Brace | Maximum Total Wall Height |
| #4 | 8 | 32'-0" | 17'-4" | 49'-4" |
| | 16 | 28'-0" | 15'-4" | 43'-4" |
| | 24 | 26'-0" | 14'-0" | 40'-0" |
| | 32 | 22'-8" | 12'-8" | 35'-4" |
| | 40 | 20'-0" | 11'-4" | 31'-4" |
| | 48 | 18'-8" | 10'-0" | 28'-8" |
| #5 | 8 | 34'-0" | 18'-0" | 52'-0" |
| | 16 | 30'-0" | 16'-0" | 46'-0" |
| | 24 | 28'-0" | 14'-8" | 43'-4" |
| | 32 | 26'-8" | 14'-0" | 40'-8" |
| | 40 | 24'-8" | 14'-0" | 38'-8" |
| | 48 | 22'-8" | 12'-8" | 35'-4" |
| #6 | 8 | 35'-4" | 19'-4" | 54'-8" |
| | 16 | 31'-4" | 16'-8" | 50'-0" |
| | 24 | 29'-4" | 15'-4" | 44'-8" |
| | 32 | 28'-0" | 14'-8" | 42'-8" |
| | 40 | 27'-4" | 14'-8" | 42'-0" |
| | 48 | 26'-8" | 14'-0" | 40'-8" |
| #7 | 8 | 36'-8" | 20'-0" | 56'-8" |
| | 16 | 32'-0" | 17'-4" | 49'-4" |
| | 24 | 30'-0" | 16'-0" | 46'-0" |
| | 32 | 29'-4" | 15'-4" | 44'-8" |
| | 40 | 28'-0" | 15'-4" | 43'-4" |
| | 48 | 27'-4" | 14'-8" | 42'-0" |
| #8 | 8 | 38'-0" | 20'-0" | 58'-0" |
| | 16 | 32'-8" | 17'-4" | 50'-0" |
| | 24 | 30'-8" | 16'-8" | 47'-4" |
| | 32 | 30'-0" | 16'-0" | 46'-0" |
| | 40 | 29'-4" | 15'-4" | 44'-8" |
| | 48 | 28'-8" | 15'-4" | 44'-0" |

Notes

1) An $f'_m = 1500$ psi is achieved simply by specifying block to be in accordance with ASTM C90 and limiting mortar to Type M or S. (Per ASTM C90, the minimum concrete masonry unit compressive strength is 1900 psi on the net area.)

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TABLE 1D



12” CMU – ALLOWABLE WALL ALLOWABLE HEIGHTS (INTERMEDIATE PERIOD)

(See Figure 1)

| Bars Centered | | Type M or S Mortar | | |
|--------------------------|---------------------------|--|--------------------------------------|------------------------------|
| | | f _m = 2000 psi (f _i = 1000 psi) (Note 1) | | |
| Rebar Size (Grade 60) | Rebar Spacing (Inches) | Brace Height (Also Max. Unsupported Height Above Footing or Line of Support) | Maximum Height Above Top of Brace | Maximum Total Wall Height |
| #4 | 8 | 35'-4" | 18'-8" | 54'-0" |
| | 16 | 31'-4" | 16'-8" | 48'-0" |
| | 24 | 26'-0" | 14'-0" | 40'-0" |
| | 32 | 22'-8" | 12'-8" | 35'-4" |
| | 40 | 20'-0" | 11'-4" | 31'-4" |
| | 48 | 18'-8" | 10'-0" | 28'-8" |
| #5 | 8 | 38'-0" | 20'-0" | 58'-0" |
| | 16 | 33'-4" | 18'-0" | 51'-4" |
| | 24 | 31'-4" | 16'-8" | 48'-0" |
| | 32 | 28'-0" | 14'-8" | 42'-8" |
| | 40 | 25'-4" | 14'-0" | 39'-4" |
| | 48 | 22'-8" | 12'-8" | 35'-4" |
| #6 | 8 | 40'-0" | 21'-4" | 61'-4" |
| | 16 | 34'-8" | 18'-8" | 53'-4" |
| | 24 | 32'-8" | 17'-4" | 50'-0" |
| | 32 | 31'-4" | 16'-8" | 48'-0" |
| | 40 | 30'-0" | 16'-0" | 46'-0" |
| | 48 | 27'-4" | 14'-8" | 42'-0" |
| #7 | 8 | 41'-4" | 22'-0" | 63'-4" |
| | 16 | 36'-0" | 19'-4" | 55'-4" |
| | 24 | 34'-0" | 18'-0" | 52'-0" |
| | 32 | 32'-8" | 17'-4" | 50'-0" |
| | 40 | 31'-4" | 16'-8" | 48'-0" |
| | 48 | 30'-8" | 16'-8" | 47'-4" |
| #8 | 8 | 42'-8" | 22'-0" | 64'-8" |
| | 16 | 37'-4" | 20'-0" | 57'-4" |
| | 24 | 34'-0" | 18'-8" | 52'-8" |
| | 32 | 33'-4" | 18'-0" | 51'-4" |
| | 40 | 32'-8" | 17'-4" | 50'-0" |
| | 48 | 32'-0" | 17'-4" | 49'-4" |

Note 1

1) An f_m = 2000 psi may be achieved by either of these methods:

a) Prism test method (reference ASTM C1314)

b) Unit Strength method: Compressive strength of the concrete masonry units shall be 2,800 psi minimum on the net area.

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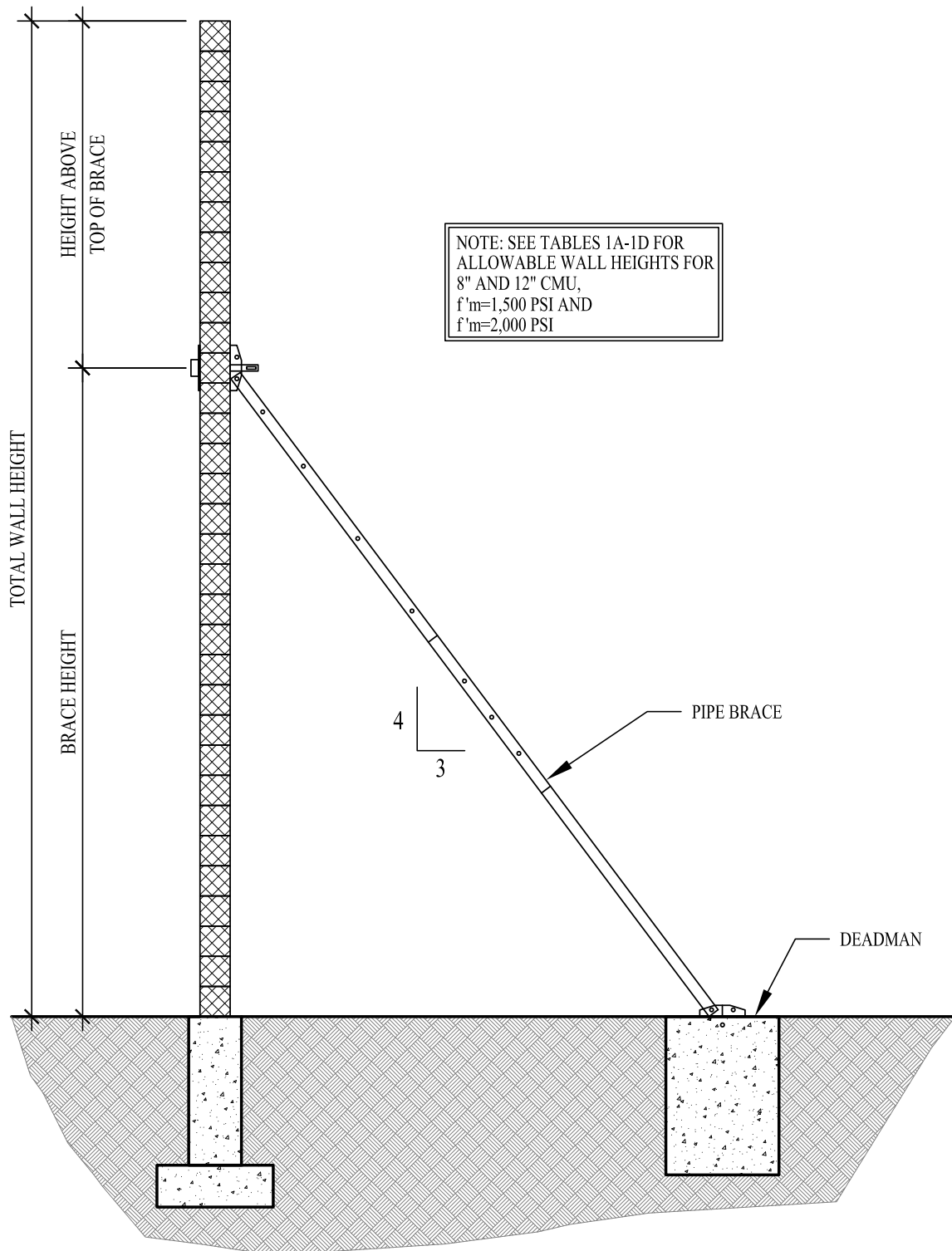


FIGURE 1: EXTERNALLY BRACED WALL SECTION

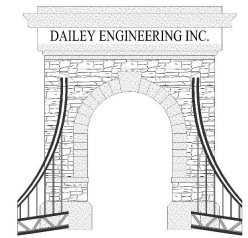


TABLE 2A
UNREINFORCED INTERNALLY BRACED ALLOWABLE WALL HEIGHTS
(INTERMEDIATE PERIOD)

| CMU Wall Thickness & Grouting | Type S Mortar Cement Or Portland Cement/Lime | Type S Masonry Cement Or Air Entrained Portland Cement/Lime |
|-------------------------------|---|--|
| 8" UngROUTed | 10'-0" | 8'-0" |
| 12" UngROUTed | 14'-8" | 12'-0" |
| | | |
| 8" Solid Grouted | 18'-0" | 18'-0" |
| 12" Solid Grouted | 29'-4" | 28'-0" |

Notes

- 1) Table heights also applicable with Type M mortar.
- 2) Table valid for masonry densities of 95 pcf and heavier.

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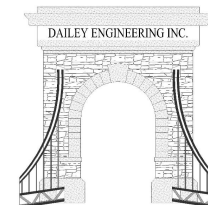


TABLE 2B
UNREINFORCED INTERNALLY BRACED ALLOWABLE HORIZONTAL WALL LENGTHS
(INTERMEDIATE PERIOD)

| CMU Wall Thickness | Type S Mortar Cement Or Portland Cement/Lime | Type S Masonry Cement Or Air Entrained Portland Cement/Lime |
|--------------------|---|--|
| 8" | 24'-0" | 18'-8" |
| 12" | 32'-0" | 24'-0" |

Notes

- 1) Table values also applicable with Type M mortar.
- 2) Table valid for all masonry densities.
- 3) Table assumes ungrouted masonry, and is conservative for partially or fully grouted walls.
- 4) Table values applicable only with connected intersecting or return conditions at both ends of wall.

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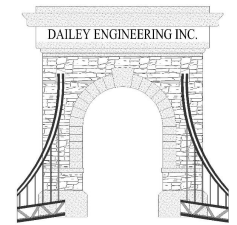


TABLE 3A

**8" CMU – REINFORCED INTERNALLY BRACED ALLOWABLE WALL HEIGHTS
(INTERMEDIATE PERIOD)**

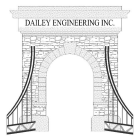
| Bars Centered | | Type M or S Mortar | | |
|-----------------------------------|---------------|---|--|--|
| Rebar Size (Grade 60) (Note 4) | Rebar Spacing | Allowable Wall Heights | | |
| | | $f'_m = 1500$ psi (Note 1) ($f'_i = 750$ psi) | $f'_m = 2000$ psi (Note 2) ($f'_i = 1000$ psi) | $f'_m = 2500$ psi (Note 3) ($f'_i = 1250$ psi) |
| #4 | 8 | 22'-0" | 24'-8" | 26'-8" |
| | 16 | 20'-0" | 22'-0" | 24'-0" |
| | 24 | 18'-8" | 20'-8" | 20'-8" |
| | 32 | 18'-0" | 18'-0" | 18'-0" |
| | 40 | 16'-0" | 16'-0" | 16'-0" |
| | 48 | 14'-8" | 14'-8" | 14'-8" |
| #5 | 8 | 23'-4" | 26'-0" | 28'-0" |
| | 16 | 21'-4" | 23'-8" | 25'-4" |
| | 24 | 20'-0" | 22'-0" | 24'-0" |
| | 32 | 19'-4" | 21'-4" | 22'-8" |
| | 40 | 18'-8" | 20'-0" | 20'-0" |
| | 48 | 18'-0" | 18'-0" | 18'-8" |
| #6 | 8 | 24'-0" | 27'-4" | 30'-0" |
| | 16 | 22'-0" | 24'-8" | 26'-8" |
| | 24 | 20'-8" | 23'-4" | 25'-4" |
| | 32 | 20'-0" | 22'-8" | 24'-0" |
| | 40 | 19'-4" | 22'-0" | 23'-4" |
| | 48 | 18'-8" | 20'-8" | 22'-0" |

Notes

- 1) $f'_m = 1500$ psi is achieved simply by specifying block to be in accordance with ASTM C90 and limiting mortar to Type M or S. (Per ASTM C90, the minimum concrete masonry unit compressive strength is 1900 psi on the net area.)
- 2) $f'_m = 2000$ psi may be achieved by either Prism Testing or the Unit Strength Method (compressive strength of the concrete masonry units shall be 2,800 psi minimum on the net area).
- 3) $f'_m = 2500$ psi may be achieved by either Prism Testing or the Unit Strength Method (compressive strength of the units shall be 3,750 psi minimum on the net area).
- 4) All reinforcement lap splices, including the foundation dowels, shall be minimum 48 bar diameters in length.

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TABLE 3B



12” CMU – REINFORCED INTERNALLY BRACED ALLOWABLE WALL HEIGHTS (INTERMEDIATE PERIOD)

| Bars Centered | | Type M or S Mortar | | |
|-----------------------------------|---------------|-----------------------------------|------------------------------------|------------------------------------|
| Rebar Size (Grade 60) (Note 4) | Rebar Spacing | Allowable Wall Heights | | |
| | | f'm = 1500 psi (f'i = 750 psi) | f'm = 2000 psi (f'i = 1000 psi) | f'm = 2500 psi (f'i = 1250 psi) |
| #4 | 8 | 32'-0" | 35'-4" | 38'-0" |
| | 16 | 28'-0" | 31'-4" | 32'-0" |
| | 24 | 26'-0" | 26'-0" | 26'-0" |
| | 32 | 22'-8" | 22'-8" | 22'-8" |
| | 40 | 20'-0" | 20'-0" | 20'-0" |
| | 48 | 18'-8" | 18'-8" | 18'-8" |
| #5 | 8 | 34'-0" | 38'-0" | 41'-4" |
| | 16 | 30'-0" | 33'-4" | 36'-0" |
| | 24 | 28'-0" | 31'-4" | 32'-0" |
| | 32 | 26'-8" | 28'-0" | 28'-0" |
| | 40 | 24'-8" | 25'-4" | 25'-4" |
| | 48 | 22'-8" | 22'-8" | 23'-4" |
| #6 | 8 | 35'-4" | 40'-0" | 43'-4" |
| | 16 | 31'-4" | 34'-8" | 38'-0" |
| | 24 | 29'-4" | 32'-8" | 35'-4" |
| | 32 | 28'-0" | 31'-4" | 33'-4" |
| | 40 | 27'-4" | 30'-0" | 30'-0" |
| | 48 | 26'-8" | 27'-4" | 27'-4" |
| #7 | 8 | 36'-8" | 41'-4" | 42'-8" |
| | 16 | 32'-0" | 36'-0" | 39'-4" |
| | 24 | 30'-0" | 34'-0" | 36'-8" |
| | 32 | 29'-4" | 32'-8" | 35'-4" |
| | 40 | 28'-0" | 31'-4" | 34'-8" |
| | 48 | 27'-4" | 30'-8" | 32'-0" |
| #8 | 8 | 38'-0" | 42'-8" | 44'-0" |
| | 16 | 32'-8" | 37'-4" | 40'-8" |
| | 24 | 30'-8" | 34'-0" | 38'-0" |
| | 32 | 30'-0" | 33'-4" | 36'-8" |
| | 40 | 29'-4" | 32'-8" | 35'-4" |
| | 48 | 28'-8" | 32'-0" | 34'-8" |

Notes

- 1) f'm = 1500 psi is achieved simply by specifying block to be in accordance with ASTM C90 and limiting mortar to Type M or S. (Per ASTM C90, the minimum concrete masonry unit compressive strength is 1900 psi on the net area.)
- 2) f'm = 2000 psi may be achieved by either Prism Testing or the Unit Strength Method (compressive strength of the concrete masonry units shall be 2,800 psi minimum on the net area.)
- 3) f'm = 2500 psi may be achieved by either Prism Testing or the Unit Strength Method (compressive strength of the units shall be 3,750 psi minimum on the net area.)
- 4) All Reinforcement lap splices, including the foundation dowels, shall be minimum 48 bar diameters in length.

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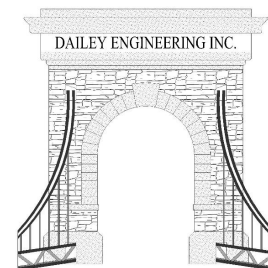


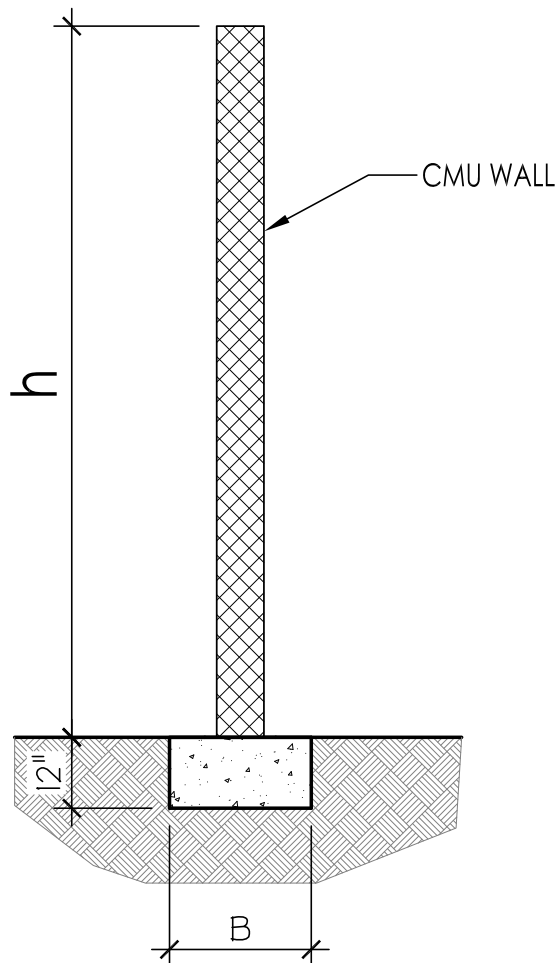
TABLE 4A

**ALLOWABLE WALL HEIGHTS – SHALLOW SPREAD FOOTINGS
(INTERMEDIATE PERIOD – INTERNAL BRACING)**

| B (inches) | 8" CMU h max (ft) | 12" CMU h max (ft) |
|------------|----------------------|-----------------------|
| 16 | 8'-8" | 10'-8" |
| 18 | 10'-0" | 11'-4" |
| 20 | 12'-0" | 14'-0" |
| 24 | 14'-0" | 17'-4" |
| 30 | 18'-0" | 22'-0" |
| 36 | 22'-0" | 26'-8" |
| 48 | 30'-0" | 36'-0" |

Notes

- 1) Table valid for grouting at 48" o/c minimum.
- 2) Table valid for masonry densities of 95 pcf and heavier.



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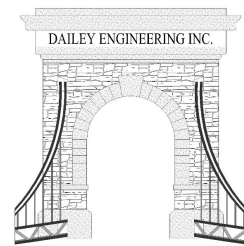


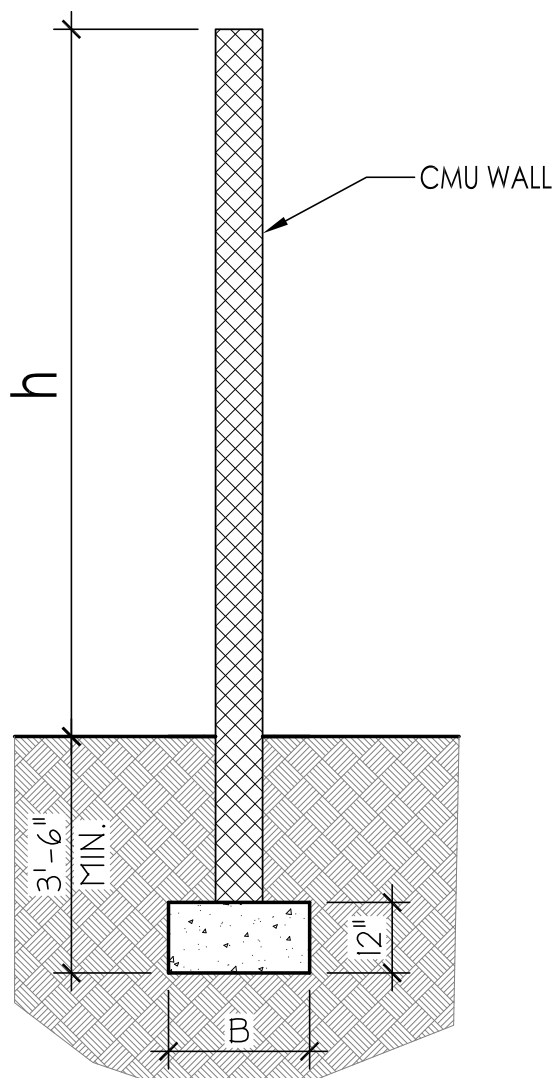
TABLE 4B

**ALLOWABLE WALL HEIGHTS – FROST DEPTH SPREAD FOOTINGS
(INTERMEDIATE PERIOD – INTERNAL BRACING)**

| B (inches) | 8" CMU h max (ft) | 12" CMU h max (ft) |
|------------|----------------------|-----------------------|
| 16 | 10'-8" | 12'-8" |
| 18 | 12'-8" | 14'-8" |
| 20 | 14'-8" | 16'-8" |
| 24 | 18'-8" | 20'-8" |
| 30 | 24'-0" | 27'-4" |
| 36 | 30'-0" | 33'-4" |
| 48 | >38' | 46'-0" |

Notes

- 1) Table valid for grouting at 48" o/c minimum.
- 2) Table valid for masonry densities of 95 pcf and heavier.
- 3) Foundation wall below grade shall be either solid grouted CMU or Concrete.



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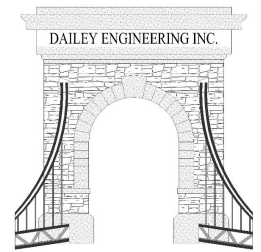


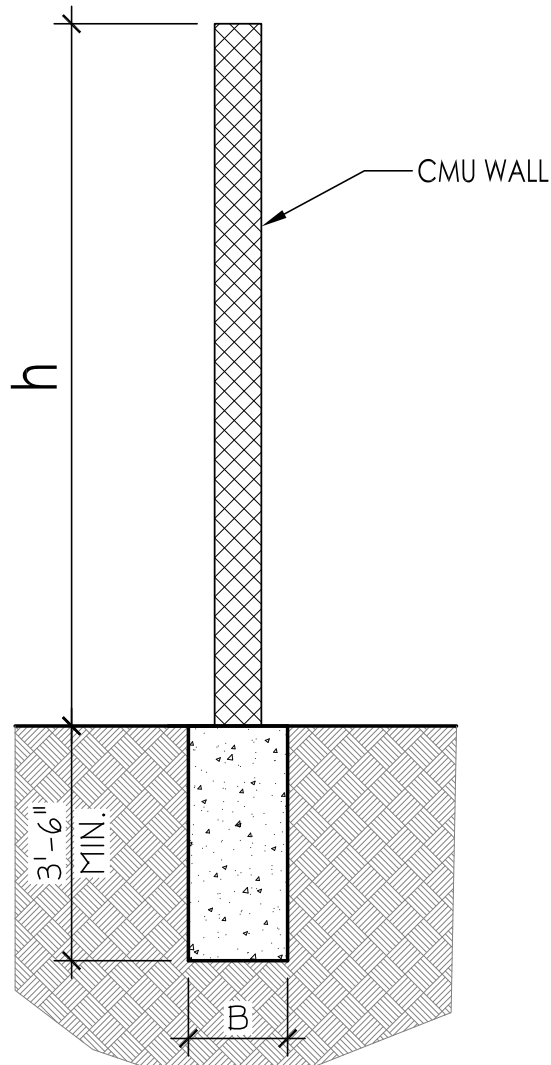
TABLE 4C

**ALLOWABLE WALL HEIGHTS – TRENCH FOOTINGS
(INTERMEDIATE PERIOD – INTERNAL BRACING)**

| B (inches) | 8" CMU h max (ft) | 12 " CMU h max (ft) |
|------------|----------------------|------------------------|
| 12 | 22'-0" | - |
| 16 | 24'-0" | 25'-4" |
| 18 | 25'-4" | 26'-8" |
| 20 | 26'-8" | 28'-8" |
| 24 | 29'-4" | 31'-4" |
| 30 | >30' | 36'-8" |

Notes

- 1) Table valid for grouting at 48" o/c minimum.
- 2) Table valid for masonry densities of 95 pcf and heavier.



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