



Residential Construction Worksheet

See link below for referenced code sections of the 2012 N.C. Residential Code:

<https://codes.iccsafe.org/public/collections/nc>

FOOTINGS: Conventional light frame construction

<https://codes.iccsafe.org/public/collections/nc> 2012 NC Residential Code, Chapter 4

CMU and Concrete Walls, Monolithic Slab Footings (Table R403.1):

One Story:	Minimum footing width: 12"	Minimum footing thickness: 6"
Two Story:	Minimum footing width: 15"	Minimum footing thickness: 8"
Three Story:	Minimum footing width: 17"	Minimum footing thickness: 10"

Footing Dimensions:

Width: 12" minimum
 Frost Depth: 12" minimum
 Projections: 2" minimum

Footing Reinforcement:

Horizontal diameter	<input style="width: 80px; height: 20px;" type="text"/>
Number of horizontal runs	<input style="width: 80px; height: 20px;" type="text"/>
Hooked dowel bar diameter	<input style="width: 80px; height: 20px;" type="text"/>
Hooked dowel spacing	<input style="width: 80px; height: 20px;" type="text"/>

Foundation Wall:

Thickness
 Height
 Unbalanced backfill height

Vertical Reinforcement (if applicable):

Size
 Spacing

Pier and Footing Sizes for Support of Girders (Table 403.1a):

Area ⁵	1 Story		2 Story		2 ½ Story	
	Pier ^{3,4}	Footing	Pier ^{3,4}	Footing	Pier ^{3,4}	Footing
50	8"x16"	1'-4"x2'-0" x8"	8"x16"	1'-4"x2'-6"x8"	8"x16"	1'-4"x2'x6"x8"
100	8"x16"	1'-4"x2'-0"x8"	8"x16"	2'-0"x2'-0"x10"	16"x16"	2'x6"x2'-6"x10"
150	8"x16"	2'-0"x2'-0"x8"	16"x16"	2'-8"x2'-8"x10"	16"x16"	3'x0"x3'x0"x10"
200	8"x16"	2'-4"x2'-4"x10"	16"x16"	3'-0"x3'-0"x10"	16"x16"	3'-11"x3'-8"x1'-0"
250	--	--	16"x16"	3'-4"x3'-4"x1'-0"	16"x24"	4'-0"x4'-0"x1'-0"
300	--	--	16"x16"	3'-8"x3'-8"x1'-0"	16"x24"	4'-6"x4'-6"x1'-0"

Calculate tributary area:

Definition: Tributary area is the load carried by each pier and footing.
 Fill in the following blanks using your plans and apply your answer to the table above.
 Engineering may replace this calculation.

Maximum floor joist/truss span: x distance between piers or posts: = sq. ft. of tributary area. **Circle** above the pier and footing sizes for the maximum girder span.

Floor Framing:

<https://codes.iccsafe.org/public/collections/nc> 2012 NC Residential Code, Chapter 5

Girders: Size Number of Ply's Span
Joists: Size Span Spacing
Engineered trusses: Yes No
Floor Sheathing: Size Type

Note: Factory truss design shall be on site at framing inspection.

Wall Framing:

<https://codes.iccsafe.org/public/collections/nc> 2012 NC Residential Code, Chapter 6

Studs: Size Spacing Height
Headers: Size Number of Ply's Span

Note: Load bearing wall heights exceeding 10' shall meet Chapter 6 requirements..

Roof Framing:

<https://codes.iccsafe.org/public/collections/nc> 2012 NC Residential Code, Chapter 8

Rafters: Size Span Spacing
Engineered Trusses: yes no

Note: Factory truss design shall be on site at framing inspection.

Deck Framing:

<https://codes.iccsafe.org/public/collections/nc> 2012 NC Residential Code, Appendix M

Footing: Width Frost Depth: 12" minimum Spacing
Girders: Size Number of Ply's Span
Joists: Size Span Spacing

Precast Concrete Foundation Walls:

<https://codes.iccsafe.org/public/collections/nc> 2012 NC Residential Code, Chapter 4, Section 404.5

Yes No

Note: Design Professional documentation required.

Retaining Wall:

<https://codes.iccsafe.org/public/collections/nc> 2012 NC Residential Code, Chapter 4, Section 404.4

Height
Unbalanced backfill height

Note: (R404.4) over 4' requires design professional approval prior to certificate of occupancy

Applicant's Signature

Date