

**2012 NORTH CAROLINA
GENERAL CONTRACTORS
LICENSING EXAM PREP COURSE
(RESIDENTIAL and COMMERCIAL)**

Residential



Commerical



STUDENT WORKBOOK

TERRY D. QUINN

Book Dated: 24 October 2013

Based on the

- 1) North Carolina State 2012 Residential and Building Code and Amendments,
- 2) North Carolina Department of Insurance,
- 3) Fundamentals of Building Construction,
- 4) Material and Methods,
- 5) Third Edition ,
- 6) Modern Masonry, Brick, Block, Stone,
- 7) Carpentry and Building Construction, 6th Edition,
- 8) Roofing Construction and Estimating,
- 9) Pipe and Excavation Contracting,
- 10) Contractors Guide to Quality Concrete Construction,
- 11) Guide to Good Bracing of Metal Plate Connected Wood Trusses,
- 12) Erosion and Sedimentation System,
- 13) Law and Regulations Applicable to General Contractors

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Introduction

Welcome to the North Carolina Residential and Commercial Building Contractors Licensing-Study Prep Course.

Scope

This course provides the most up-to-date material available to help you prepare for the North Carolina State exam.

After completing this course each student should have a working knowledge of the North Carolina Building Codes and how to use them.

Testing Standards

The State Residential Exam has 90 questions with a 70% passing rate and a 210 minutes (3½ hour) time limit.

The State Building Exam has 90 questions with a 70% passing rate and a 180 minutes (3 hour) time limit.

Exam Topic

Residential Exam Topic	No. of Items	Building Exam Topic	No. of Items
Site work, Footings and Foundations	12 ea	Site Work	6
Concrete and Concrete Reinforcement	10 ea	Concrete	15
Masonry	7 ea	Masonry	6
Carpentry	15 ea	Metals	15
Associated Construction Trades, including Energy Conservation and Drywall	8 ea	Carpentry	7
Roofing	6 ea	Roofing	6
Estimating, Plan Reading and General Residential Code Requirements	16 ea	Associated Trades	3
OHSA Safety	4 ea	Business and Law	7
Licensing and Business and Law	10 ea	Safety	4
Special Construction Zones (wind and coastal) and Erosion and Sedimentation Control	6 ea	Estimating, Plan Reading and General Building Code Requirements	14
Total	90	One Call	2
		Erosion and Sedimentation Control	2
		Licensing	2
		Liens	1
		Total	90

Residential Test Information:**(Material allowed in the testing area)**

1. North Carolina Occupational Safety and Health Standards for the Construction Industry, 2005, North Carolina Department of Labor, Division of Occupational Safety and Health, Bureau of Education, Training and Technical Assistance, 4 W. Edenton Street, Raleigh, NC 27601-1092, (919) 807-2875 or (800) NC-labor, www.nclabor.com
2. Contractor's Guide to Business, Law and Project Management - North Carolina General Contractors Edition, 2006, 6th Edition, National Association of State Contractor Licensing Agencies (NASCLA), P.O. Box 14941, Scottsdale, AZ 95267, (623) 587-9519, Fax (623) 587-9625, www.nascla.org, ISBN: 1-934234-15-x, (See order form at the end of this bulletin.)
3. North Carolina State Residential (One- and Two- Family Dwelling) Code, 2009, or the North Carolina Building Code, 2009, North Carolina Department of Insurance, P.O. Box 26387, Raleigh, NC 27611, 1-919-661-5880, www.ncdoi.com **(Effective 5/1/12 the 2012 edition will be used)**
4. North Carolina State Building Code: Administrative Code and Policies, 2009, International Code Council, (800) 786-4452, www.iccsafe.org (Effective 3/1/12 the 2012 edition will be used)
5. Magnifying Glass will be provided upon request
6. Bring a Non-recording, non-programmable, battery power calculator.

(Material NOT allowed in the testing area)

The following reference materials are not allowed in the examination center, but may be part of the exam material.

1. Carpentry and Building Construction, 2010 edition, John L. Feirer and Mark D. Feirer, Glencoe/McGraw-Hill (800) 334- 7344, Fax (614) 755-5682, URL- www.glencoe.com, ISBN: 0-07-822702-X.
2. Roofing Construction & Estimating, 1995, Atcheson, Daniel, Craftsman Book Company, P.O. Box 6500, Carlsbad, CA 92018, (800) 829-8123, www.craftsmanbook.com/cbcstore/, ISBN: 1-57218-007-2.
3. *Modern Masonry - Brick, Block, Stone*, Clois E. Kicklighter, 2010 (Seventh Edition), The Goodheart-Willcox Company, (800) 323-0440, www.goodheartwillcox.com, ISBN 1-56637-962-8.
4. Pipe and Excavation Contracting, 1987, Dave Roberts, Craftsman Book Company, P.O. Box 6500, Carlsbad, CA 92018, (800) 829-8123, www.craftsmanbook.com/cbcstore/, ISBN: 0-934041-22-9.
5. The Contractor's Guide to Quality Concrete Construction, 2005, American Concrete Institute, P.O. Box 9094, Farmington Hills, MI 48333, (248) 848-3700, www.aciint.org/, ISBN: 0-87031-016-X.
6. *Guide to Good Practice for Handling, Installing, Restraining, and Bracing of Metal Plate Connected Wood Trusses*, 2006, Wood Truss Council of America, (608) 274-4849, www.woodtruss.com.
7. North Carolina Administrative Code, Title 15A, Chapter 4 Sedimentation Control, as amended July 1, 2000, Sedimentation Control Commission, Archdale Building, 512 N. Salisbury Street, P.O. Box 27687, Raleigh, NC 27611, www.dlr.enr.state.nc.us/images/sedimentrules.doc.
8. North Carolina General Statutes Chapter 113A, Article 4 Sedimentation Pollution Control Act of 1973, as amended through October 2002, Sections 113A-50 to 113A-67, inclusive, www.ncleg.net/EnactedLegislation/Statutes/HTML/BySection/Chapter_113A/GS_113A-4.html
9. Laws and Regulations Applicable to General Contracting in the State of North Carolina, North Carolina Licensing Board for General Contractors, P.O. Box 17187, Raleigh, NC 27619-7987, (919) 571-4183, www.nclbgc.org.

Building Test Information:

(Material allowed in the testing area)

1. North Carolina Occupational Safety and Health Standards for the Construction Industry, 2005, North Carolina Department of Labor, Division of Occupational Safety and Health, Bureau of Education, Training and Technical Assistance, 4 W. Edenton Street, Raleigh, NC 27601-1092, (919) 807-2875 or (800) NC-labor, www.nclabor.com.
2. Contractor's Guide to Business, Law and Project Management - North Carolina General Contractors Edition, 6th Edition, National Association of State Contractor Licensing Agencies (NASCLA), P.O. Box 14941, Scottsdale, AZ 95267, (623) 587-9519, Fax (623) 587-9625, www.nascla.org, ISBN: 1-934234-15-x, (See order form at the end of this bulletin.)
3. North Carolina State Building Code, 2009, North Carolina Department of Insurance, P.O. Box 26387, Raleigh, NC 27611, (919) 661-5880, www.ncdoi.com (Effective 3/1/12 the 2012 edition will be used).
4. *ACI 530-05 or 08 Building Code Requirements for Masonry Structures*, 2005 or 2008, American Concrete Institute, (248) 848- 3700, www.concrete.org .
5. *ACI 318-05 or 08 Building Code Requirements for Structural Concrete and Commentary*, 2005 or 2008, American Concrete Institute, (248) 848-3700, www.concrete.org .
6. North Carolina State Building Code: Administrative Code and Policies, 2009, International Code Council, (800) 786-4452, www.iccsafe.org (**Effective 3/1/12 the 2012 edition will be used**)

(Material NOT allowed in the testing area)

The following reference materials are not allow in the examination center, but may be part of the exam material.

1. Handling and Erection of Steel Joists and Joist Girders, 1987 or 2006 edition, Steel Joist Institute, 3127 10th Avenue North Extension, Myrtle Beach, South Carolina 29577-6760, www.steeljoist.org.
2. Carpentry and Building Construction, 2010 edition, John L. Feirer and Mark D. Feirer, Glencoe/McGraw-Hill (800) 334-7344, Fax (614) 755-5682, URL- www.glencoe.com, ISBN: 0-07-822702-X.
3. Design and Control of Concrete Mixtures, 2010, Steven H. Kosmatka, William C. Panarese, Portland Cement Association, 5420 Old Orchard Road, Skokie, IL 60077-1083, (847) 966-6200, www.portcement.org/bookstore, ISBN: 0893122173.
4. Pipe and Excavation Contracting, 1987, Dave Roberts, Craftsman Book Company, P.O. Box 6500, Carlsbad, CA 92018, (800) 829-8123, www.craftsmanbook.com/cbcstore/, ISBN: 0-934041-22-9.
5. Roofing Construction & Estimating, 1995, Atcheson, Daniel, Craftsman Book Company, P.O. Box 6500, Carlsbad, CA 92018, (800) 829-8123, www.craftsmanbook.com/cbcstore/, ISBN: 1-57218-007-2.
6. Instructional Manual for Training and Certification of Field Personnel for Unbonded Post-Tensioning, 3rd Edition, 2003, Post-Tensioning Institute, 8601 North Black Canyon Highway, Suite 103, Phoenix, AZ 85021, (602) 870-7540, www.post-tensioning.org.
7. *Modern Masonry - Brick, Block, Stone*, Clois E. Kicklighter, 2010 (Seventh Edition), The Goodheart-Willcox Company, (800) 323-0440, www.goodheartwillcox.com, ISBN 1-56637-962-8
8. North Carolina One-Call Center Excavation Manual, North Carolina One-Call Center, (800) 632-4949, www2.ncocc.org/ncocc/PDFs/Excavation_English.pdf.
9. North Carolina Administrative Code, Title 15A, Chapter 4 Sedimentation Control, as amended July 1, 2000, Sedimentation Control Commission, Archdale Building, 512 N. Salisbury Street, P.O. Box 27687, Raleigh, NC 27611, www.dlr.enr.state.nc.us/images/sedimentrules.doc.

10. North Carolina General Statutes Chapter 113A, Article 4 Sedimentation Pollution Control Act of 1973, as amended through October 2002, Sections 113A-50 to 113A-67, inclusive, www.ncleg.net/EnactedLegislation/Statutes/HTML/ByArticle/Chapter_113A/Article_4.html.
11. Laws and Regulations Applicable to General Contracting in the State of North Carolina, North Carolina Licensing Board for General Contractors, P.O. Box 17187, Raleigh, NC 27619-7987, (919) 571-4183, www.nclbgc.org.
12. *SDI Manual of Construction with Steel Deck*, 2006, 2nd Edition, Steel Deck Institute, (847) 458-4647, www.sdi.org

Preparing for the Examination:

1. Be confident that you will pass the exam.
2. Get a good night sleep.
3. Have a good breakfast.
4. Arrive at the exam room early.
5. Take a calculator and allowed reference material.
6. Have a clock or a watch available.
7. If you do not understand the instruction provided by the proctor, do not hesitate to ask.
8. Do not spend too much time on one question, if not sure, select the answer you believe is the most correct and make a note to check back later if time permits.
9. Some question may require guessing, trust your intuition. If you do not find the answer in the code, consider it a guess and identify for checking later if time permits.
10. Use all the time allotted... Go back over the test and review your answers.

Getting the State Exam Application:

To download an exam application, go to www.nclbgc.org, (NC Licensing Board for General Contractors), click the "Forms" tab button, go down the page until you see the "**Application for License to Practice General Contracting in the State of North Carolina**" and download.

North Carolina Licensing Board for General Contractors
P.O. Box 17187,
Raleigh, NC 27619
(919-571-4183)

Scheduling the Test

The test is a computerized-base examination administered by PSI Examination Services. Once you have been approved by the North Carolina Licensing Board of General Contractors, a Examination Eligibility Letter will be sent to you, along with instructions for registering and scheduling the examination.

Included in the Eligibility Letter will be an identification number assigned to you by the State. This number is used to schedule the examination.

You will have 120 days from the dated of the Eligibility letter to take the examination.

PSI recommends that candidates register for the examination using the internet. It is faster and more convenient. PSI website is, www.psiexams.com. Phone number is: 1-800-733-9267. You are encouraged to download the PSI booklet to educate you to the procedures. To download this packet, go to www.nclbgc.org and click the button marked "Examinations" then click download button.

How to use the Code

The Code can be used three (3) ways,

- 1) Know how to use the Table of Contents in the front of the book,
- 2) Know how to use the index in the back of the book,
- 3) Know the Chapters and code sections.

All three methods are needed to pass the state exam. But I also believe the Articles listed below should be taught to memory.

Residential

Chapter 1	Administration	Chapter 8	Roofing Construction
Chapter 2	Definitions	Chapter 9	Roofing Assemblies
Chapter 3	Planning	Chapter 10	Chimneys
Chapter 4	Foundations	Chapter 11	Energy
Chapter 5	Flooring	Chapter 44	High Winds
Chapter 6	Wall Construction	Chapter 45	Costal Plane
Chapter 7	Wall Covering	Appendix (6 ea.)	E, G, K, M, N, O

Commercial

Chapter 1	Administration	Chapter 20	Aluminum
Chapter 2	Definitions	Chapter 21	Masonry
Chapter 3	Occupancy Classification	Chapter 22	Steel
Chapter 4	Special Occupancy	Chapter 23	Wood
Chapter 5	Building Height	Chapter 24	Glass and Glazing
Chapter 6	Types of Construction	Chapter 25	Gypsum
Chapter 7	Fire-Resistance Rating	Chapter 26	Plastic
Chapter 8	Interior Finishes	Chapter 27	Emergency System
Chapter 9	Fire Protection System	Chapter 28	Mechanical System
Chapter 10	Means of Egress	Chapter 29	Plumbing
Chapter 11	Accessibility	Chapter 30	Elevators & Conveying
Chapter 12	Interior Environment	Chapter 31	Special Construction
Chapter 13	Energy Efficiency	Chapter 32	Encroachments
Chapter 14	Exterior Wall	Chapter 33	Safeguard Const. Site
Chapter 15	Roofing Assemblies	Chapter 34	Existing Structure
Chapter 16	Structural Design	Chapter 35	Referenced Standard
Chapter 17	Testing	Chapter 36	Piers & Bulkheads
Chapter 18	Soil and Foundation	Appendix's	C, D, E, F, G, H, I, J,
Chapter 19	Concrete		

Chapter 1 Administrative and Enforcement Code

(IRC) & (IBC)

Look-Up Questions

1. Per the North Carolina Residential building Code, a One- and Two-family Dwelling shall apply to dwelling of _____ stories or less above grade.
 - a. Single
 - b. Two
 - c. Three
 - d. Four

Answer:

Comment: The Residential licensing will covers all types of construction pertaining to the residential units, such as: site-work, driveways, sidewalks and all work necessary for support of the residential structure, plus work done as part of such residential units under the specialty classifications of Insulation, Masonry, and Swimming Pools.

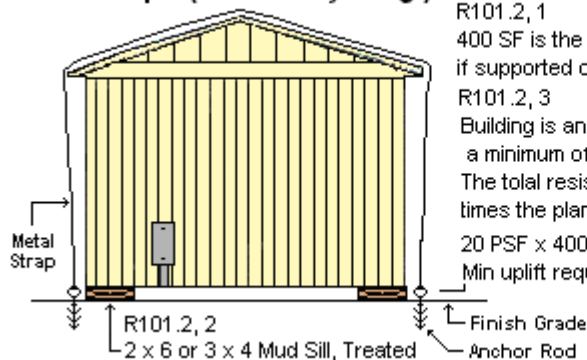


2. Which of the following construction projects would not require a building permit?
 - a.. 1500 sq.. ft., two-story building
 - b. 800 sq. ft associated building
 - c. Accessory building 12 foot by 12 foot
 - d. Accessory building greater than 12 foot

Answer:

Comment: Accessory buildings with any dimension greater than 12 feet must meet the provisions of this code. Accessory buildings may be constructed without a masonry or concrete foundation, except in coastal high hazard or ocean hazard areas.

R101.2 Scope (Accessory Bldg.)



R101.2, 1

400 SF is the maximum size building if supported on wood foundation.

R101.2, 3

Building is anchored to resist overturning and sliding by installing a minimum of one ground anchor at each corner of the building. The total resisting force of all anchors shall be equal to 20 PSF times the plan area of the building.

$20 \text{ PSF} \times 400 \text{ SF} = 8000 \text{ Pound of resist force}$
Min uplift required for this building.

Chapter 2 Definitions

(IRC) & (IBC)

Look-Up Questions

1. Per the NC Residential Building code, the word “approved” means?
- a. by building official
 - b. by third party official
 - c. by two compliance persons
 - d. investigated by license contractors

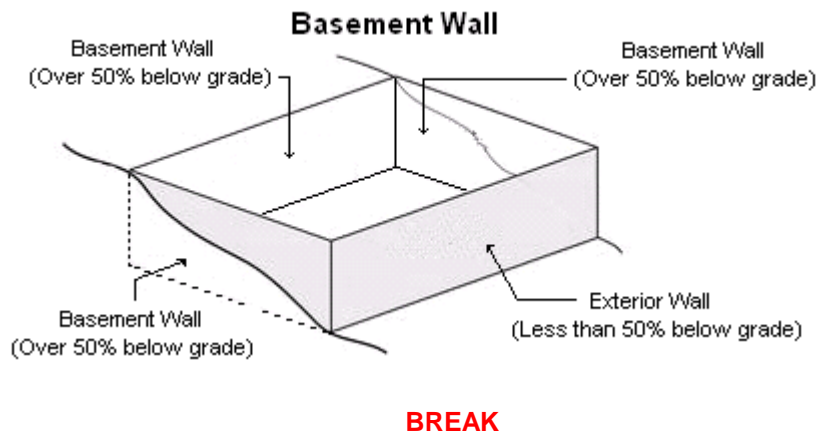
Answer:



2. A basement is a room that has at least one side that is _____ or more below grade.
- a. 25 percent
 - b. 50 percent
 - c. 75 percent
 - d. 100 percent

Answer:

Comment: If the wall is less than 50% below grade it is called an exterior wall.



Chapter 3 Building Planning

(IRC) & (IBC)

Lock-Up Questions

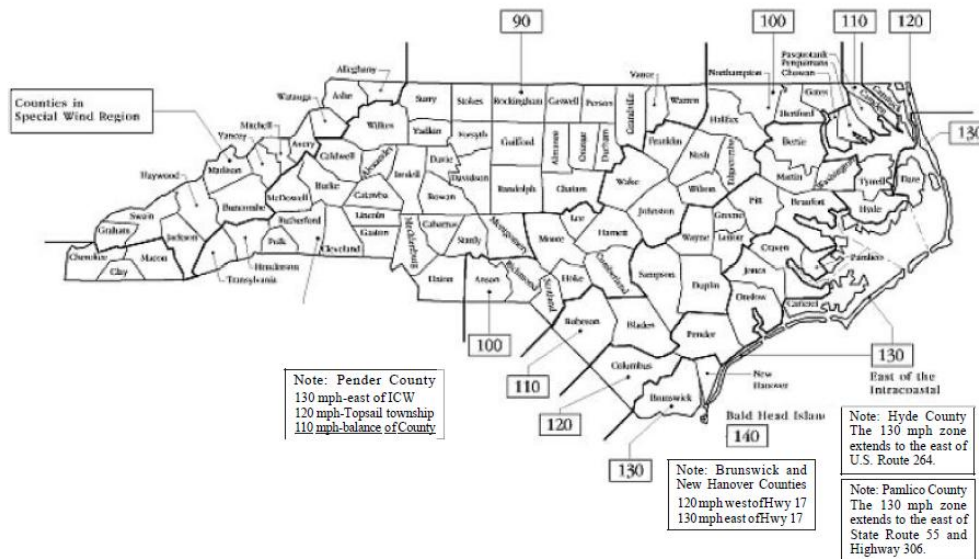
1. What is FIRM and FBFM?
 - a. Flood Base and Forward Mapping
 - b. Flood Insurance Rate Map and Flood Boundary and Floodway Map
 - c. Foundation Insulation and rough-in Method
 - d. Foundation Insulation Rate Means

Answer:

2. The basic wind speed for Cumberland County is?

- a. 90 mph
- b. 100 mph
- c. 110 mph
- d. 120 mph

Answer:



3. **IRC Only:** The seismic design category for Cumberland County is?

IBC Only: What is the seismic design category for occupancy I or II in a 0.33g area?

- a. seismic category A
- b. seismic category B
- c. seismic category C
- d. seismic category D

Answer:

20. What type and size gypsum board is required to separate a habitable room located a above the garage?

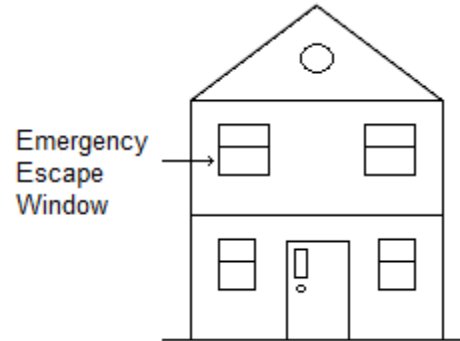
- a. 1/2" Gypsum
- b. 5/8" Type X Gypsum
- c. 3/4" Type X Gypsum
- d. 3/16" Type X Gypsum

Answer:

21. The minimum size emergency escape window in square-feet located in a habitable room on the second floor shall be _____ ?

- a. 4.0 Square feet
- b. 5.0 Square feet
- c. 5.7 Square feet
- d. 6 Square feet

Answer:



22. For an emergency escape window in a bed room on the first floor shall have a minimum net clear opening width of not less than _____ inches.

- a. 20
- b. 22
- c. 24
- d. 28

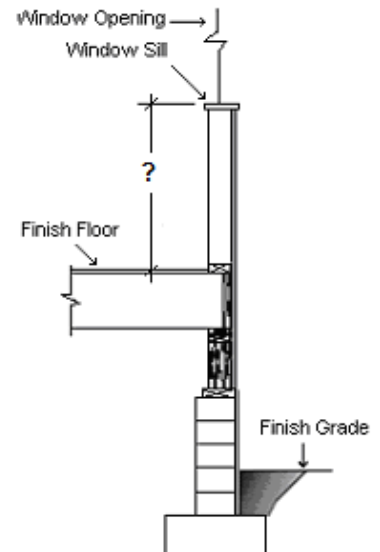
Answer:

23. The minimum width of an exit passageway (hallway) for a single residence shall be at least?

- a. 3 feet
- b. 3 feet 6 inches
- c. 4 feet
- d. 4 feet 2 inches

Answer:

NOTE: See building code, 44" except when occupant load is less than 50 person, 36".



24. Where emergency escape are provide in dwelling and commercial building, the rescue openings shall be provided with opening not more than _____ inches above the floor.

- a. 36
- b. 44
- c. 24
- d. 48

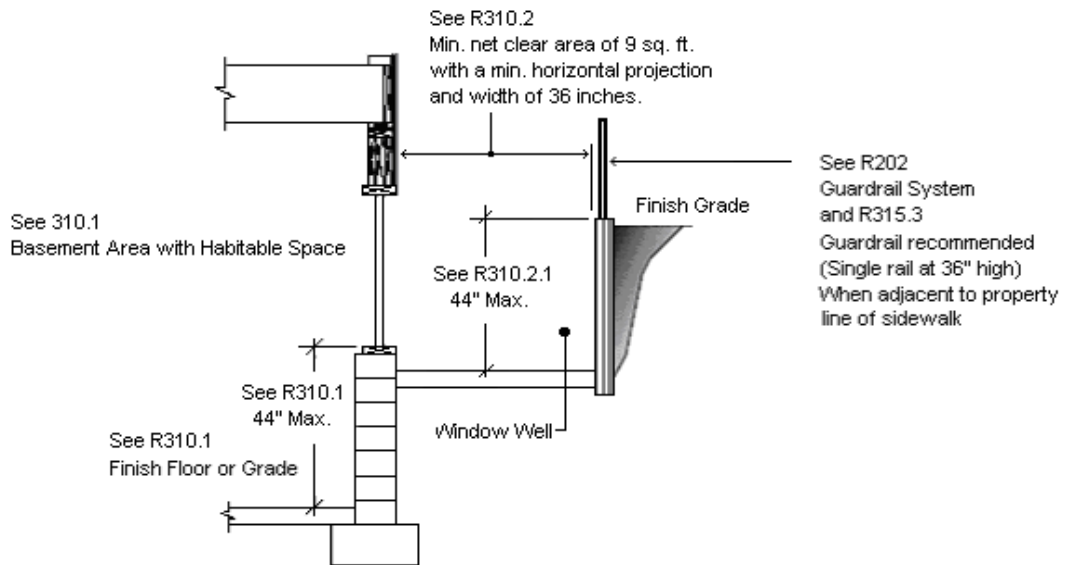
Answer:

BREAK

25. The minimum horizontal area of a window well for a basement shall be _____ square feet.

- a. 6
- b. 9
- c. 16
- d. 48

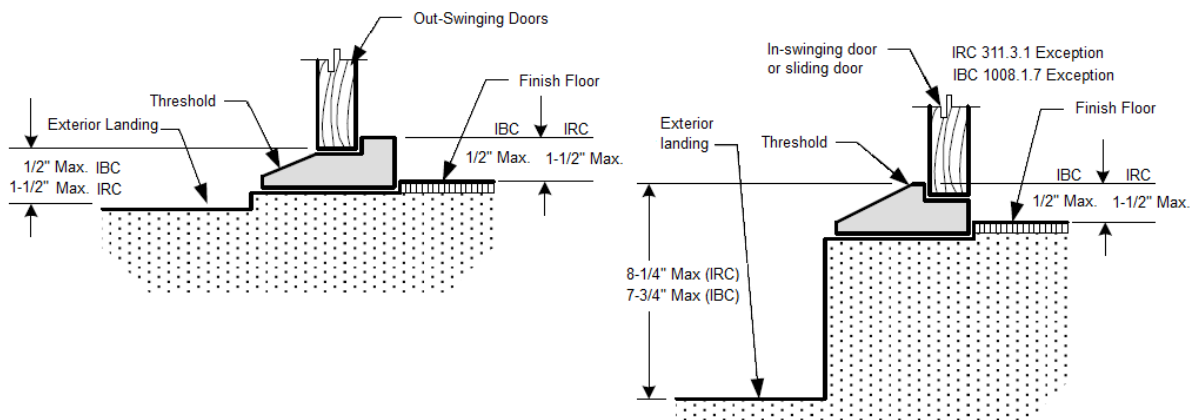
Answer:



26. Landings at exterior doorways shall be?

- a. even with the door.
- b. no more than 1 ½ inches above the top of the door threshold.
- c. no more than 8 ¼ inches below the top of the threshold.
- d. no more than 7 ¾ inches below the top of the threshold.

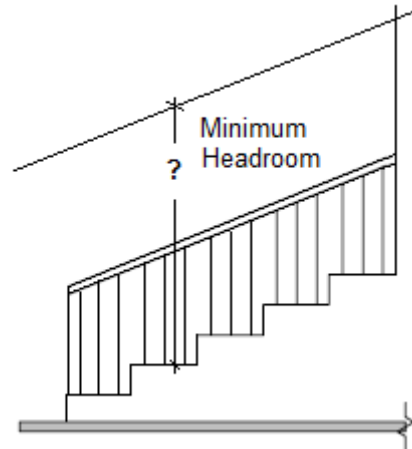
Answer:



27. Except for special types of stairways, such as spiral type, a minimum headroom clearance of _____ must be maintained in all parts of the stairway.

- a. 6' 6"
- b. 6' 8"
- c. 7' 0"
- d. 7' 6"

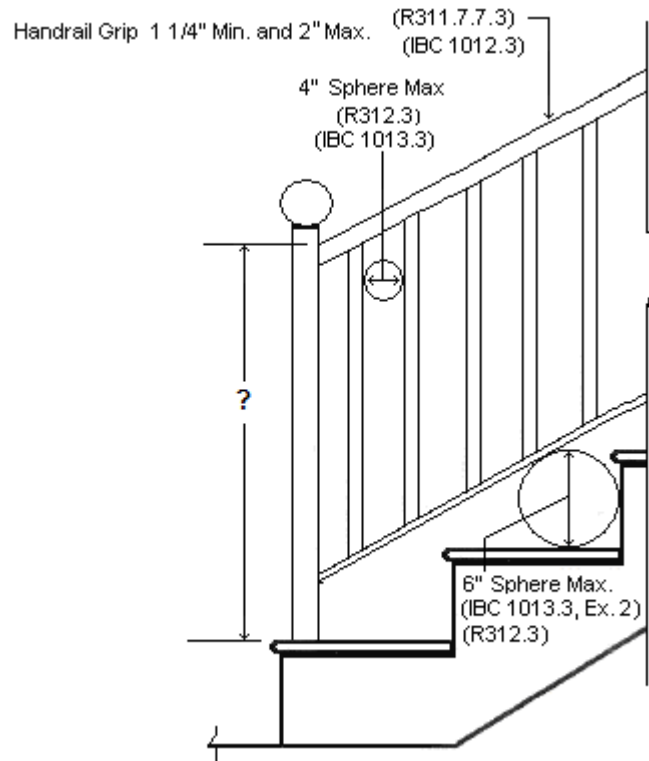
Answer:



28. Handrail height for stairs when required, should be a minimum of _____ inches and a maximum of _____ inches measured vertically from the sloped plane adjoining the tread nosing.

- a. 30 / 38 respectively
- b. 34 / 38 respectively
- c. 32 / 38 respectively
- d. 36 / 38 respectively

Answer:

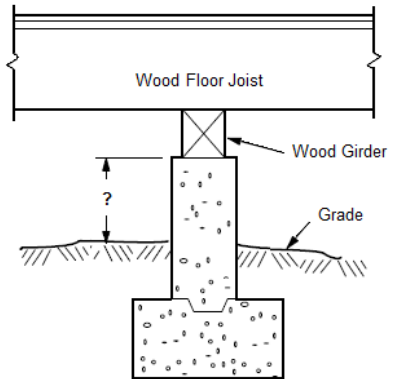


BREAK

37. In the drawing, the untreated wood girders shall have a minimum clear distance of _____ from exposed ground in crawl space?

- a. 6 inches
- b. 8 inches
- c. 12 inches
- d. 18 inches

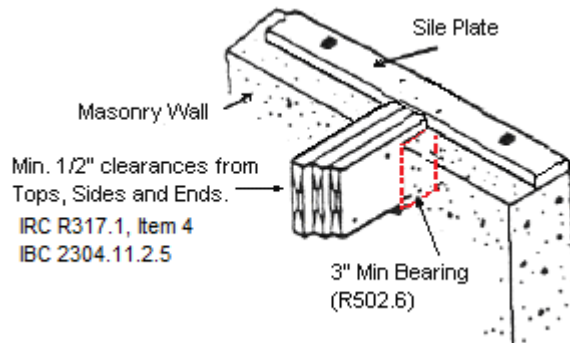
Answer:



38. When untreated wood girders are installed in the pocket of masonry or concrete foundation wall, the girder shall have AIR SPACE of not less than?

- a. 1/2 inches
- b. 3/4 inches
- c. 1 inches
- d. 1 1/2 inches

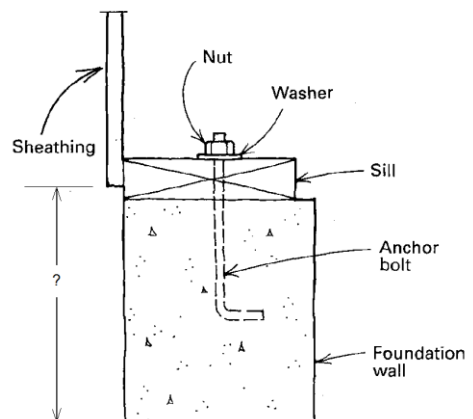
Answer:



39. Wood siding installed on the exterior of a structure should have a clearance of _____ inches from the ground.

- a. 4
- b. 6
- c. 8
- d. 10

Answer:



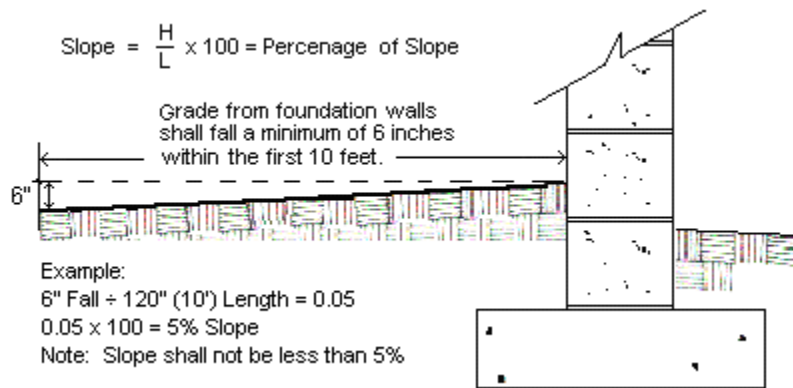
Chapter 4 Soil and Foundations

Look-Up Questions

1. When grading a lot for drainage without exception, the slope shall drainage away from the foundation not less than?)
 - a. 3 inches fall within the first 10 feet of foundation wall
 - b. 6 inches fall within the first 10 feet of foundation wall,
 - c. 1 unit vertical to 20 units horizontal for the first 10 feet of foundation wall
 - d. 12 inches fall within the first 10 feet foundation wall

Answer:

NOTE: Also 1:20 Ratio is the same as a 5% Slope: $[1 \div 20 = 0.05 \times 100 = 5\%]$



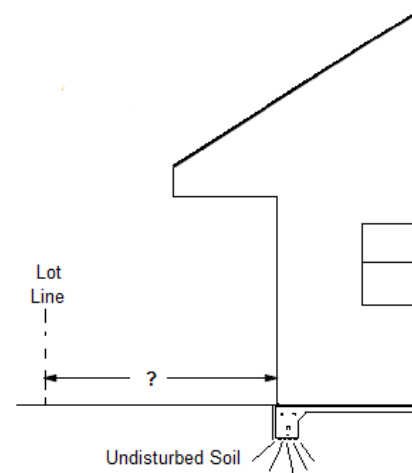
2. When a foundation wall is within 8 feet of a property line, the minimum slope shall be _____ percent?
 - a. 2 percent.
 - b. 5 percent.
 - c. 8 percent.
 - d. 10 percent.

Answer:

NOTE 1: Drain or swale is an approve means

Example: $96'' \text{ (8' long)} \times 2\% \text{ Slope} = 1.96 \text{ depth}$

Example: $2'' \text{ depth} \div 96'' \text{ long} = 0.020 \times 100 = 2\%$

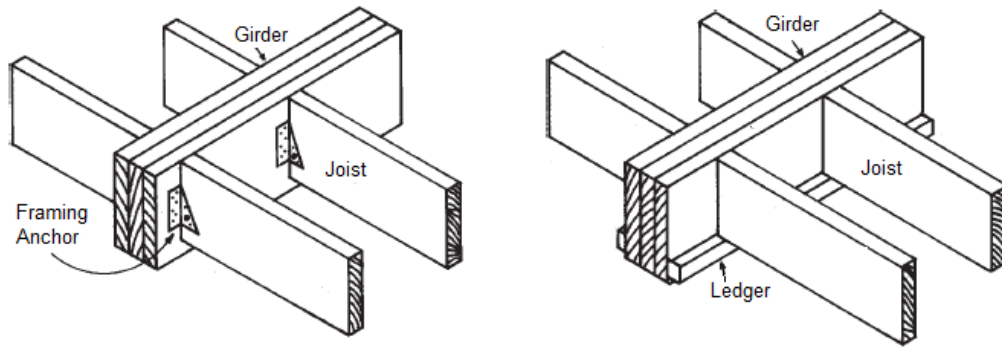


BREAK

10. Joists framing into the side of a wood girder must be supported by?

- a. Framing anchors
- b. 2 x 2 Ledger strips
- c. A and B above
- d. None of the above

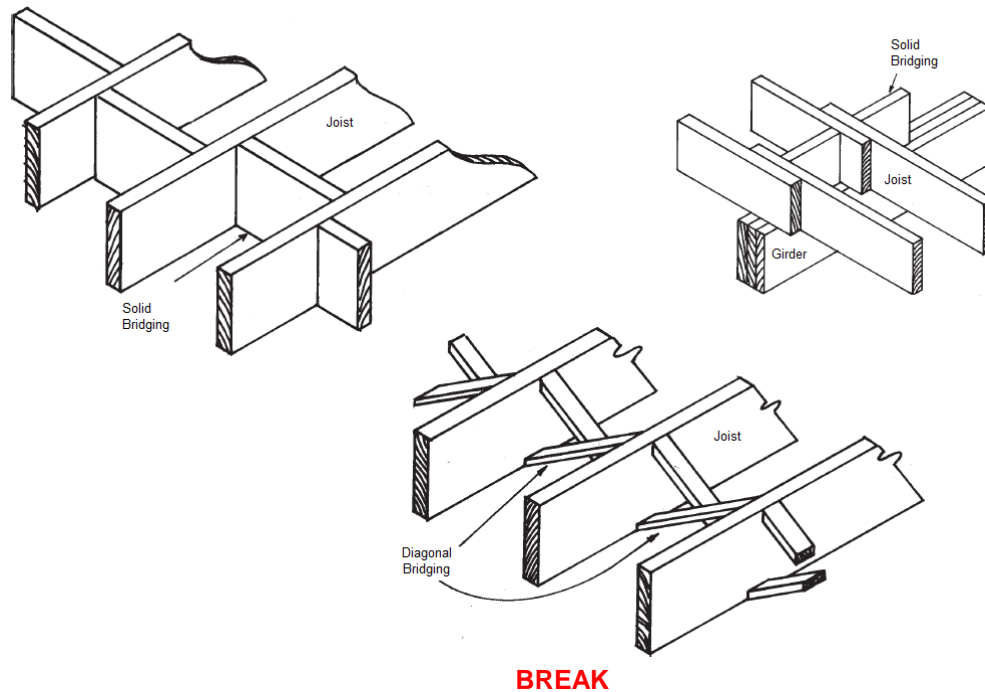
Answer:



11. When joist exceeds a nominal 2" x 12", the joist shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1 inch-by-3-inch strip nail across the bottom of joists perpendicular to joists at intervals not exceeding _____ feet apart.

- a. 4
- b. 6
- c. 8
- d. 10

Answer:



Chapter 6 Wall Constructions

(IRC) & (IBC)

Look-Up Questions

1. What is the minimum grade of wood stud that can be used as a bearing stud in walls that does not supporting a floor?
 - a. Stud
 - b. No. 3
 - c. Standard
 - d. Utility

Answer:

NOTE 1: Utility grade is allowed if not supporting a floor and in non-bearing walls.

Info Section: Lumber is graded using the American Lumber Standards, which are based on the structural integrity of a board. These grades take into account the size and location of defects, as well as the slope of grain, in order to predict the load-bearing capacity of the board. These factors are used to determine the percentage of **CLEAR WOOD**, and this determines the grade. The most common grades and their clear-wood requirements are as follows:

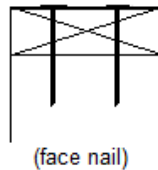
1. "Select" = at least 80% clear wood
2. "#1 Structural" = at least 75% clear wood;
3. "#2 Structural" = at least 66% clear wood;
4. "#3 Structural" ("stud" grade) = at least 50% clear wood;
5. "Construction Grade" = at least 57% clear wood;
6. "Standard Grade" = at least 43% clear wood;
7. "Utility Grade" = at least 29% clear wood; and



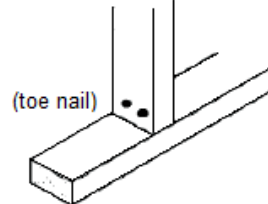
2. When face nailing a top plate, the number and size required for 3 ½ inch long nail shall be?
 - a. Two 16d common
 - b. Three 16d common
 - c. Two 8d common
 - d. Three 8d common

Answer:

Top or Sole Plate to Stud

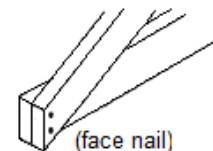


Stud to Top or Sole Plate



3. When face nailing ceiling joists to parallel rafters with 3 ½ inch long nails, what is the minimum size nails required to be used?
 - a. two 16d
 - b. three 10d
 - c. three 16d
 - d. four 10d

Ceiling Joist to Parallel Rafter

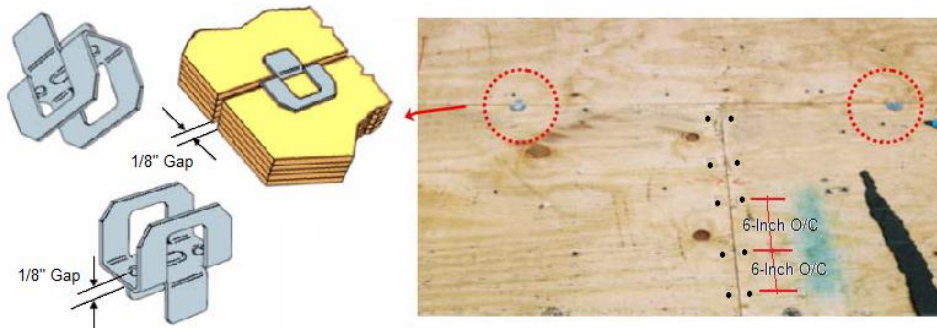


Answer:

4. Roof sheathing (plywood) shall be nailed along its edges at _____ on center?
- a. 3 inches
 - b. 4 inches
 - c. 5 inches
 - d. 6 inches

Answer:

See denote “g” to Table R602.3(1). “100 MPH and over 100 MPH attachment.” Not in IBC.
 Comment: When is panel edge clip (often called H-clips) required. It is based in the panel span rating. If a roof sheathing is stamped with a panel rating of 32/16 maximum span, and the sheathing is installed on rafters spaced at 24-inch o/c. H-clips will not be required.

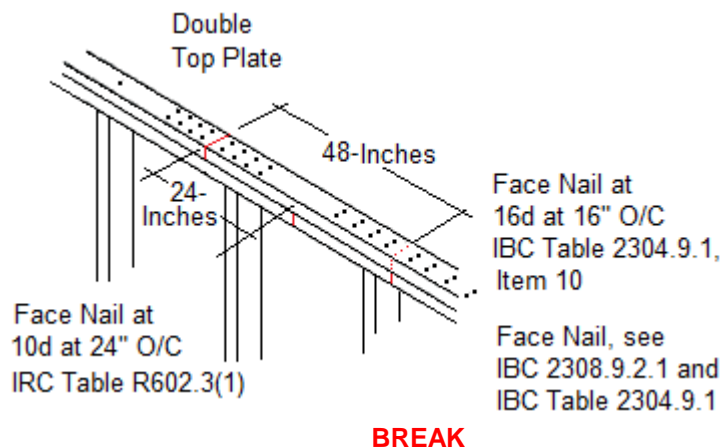


5. Utility-grade studs cannot be spaced more than _____ inches on center.
- a. 12
 - b. 16
 - c. 20
 - d. 24

Answer:

6. When top plates are doubled, the splice (end joints) shall be offset by not less than?
- a. 12 inches
 - b. 16 inches
 - c. 24 inches
 - d. 48 inches

Answer:



Answer Key

Chapter 1 Administrative and Enforcement Code (IRC) & (IBC)

1. c, IRC 101.2
c, IBC 101.2
2. c, IRC 101.2
c, IBC 101.2

Question below are from the NC Administrative Code and Policies 2012.

1. d, NCAEC 105.5
2. b, NCAEC 105.7
3. d, NCAEC 106.2
4. a, NCAEC 106.3.1
5. b, NCAEC 106.5

Chapter 2 Definitions (IRC) & (IBC)

1. a, IRC Chapter 2, Approved, Pg 4
2. b, IRC Chapter 2, Basement Wall, Pg 4
b, IBC Chapter 2, Basement Wall, Pg 6 and IBC 502.1, Pg 75
c, IBC Chapter 2, Dwelling, Pg 8
5. b, IRC Chapter 2, Means Roof Height, Pg 12
Not in IBC
Step 1: $4' \div 2 = 2'$
Step 2: $22' + 2' = 24'$ Mean Roof Height
6. c, IRC Chapter 2, Mezzanine, Pg 12
c, IRC Chapter 2, Mezzanine, Pg 11, IBC 502.1

Chapter 3 Building Planning (IRC) & (IBC)

1. b, IRC R301.1Pg 19, Table R301.2(1), Pg 20
b, IBC 1612.3, Pg 330
2. b, IRC Figure R301.2(4), Pg 24
b, IBC Figure 1609, Pg 316
3. b, IRC Figure R301.2(2), Pg 22
b, IBC 1613.5.6(1), Pg 334
4. b, IRC Figure R301.2(5), Pg 27
b, IBC Figure 1608.2, Pg 315
5. b, IRC R301.2.3, Pg 30
d, IBC 1608.2, Pg 313
6. c, IRC Table R301.5; Pg 31
c, IBC Table 1607.1 Item 27, Pg 308
7. c, IRC Table R302.1, Pg 33
d, IBC Table 602, Pg 88, also see IBC Table 705.8, Pg 97 for discussion.
20. b, IRC Table R302.6, Pg 35
b, IBC 406.1.4 Item 1, Pg 39
21. c, IRC R310.1.1, Pg 42
c, IBC 1029.2, Pg 253
22. a, IRC R310.1.3, Pg 43
a, IBC 1029.2.1, Pg 253
23. a, IRC R311.6, Pg 43
a, IBC 1023.2, Pg 243
24. b, IRC R310.1, Pg 43
b, IBC 1029.3, Pg 253

25. b, IRC R310.1, Pg 42
b, IBC 1029.3, Pg 253
26. c, IRC R311.3.1, Exception, Pg 43,
d, IBC 1008.1.7, Exception, Pg 225
27. b, IRC R311.7.2, Pg 44
b, IBC 1009.2, Pg 228
28. b, IRC R311.7.7.1, Pg 44
b, IBC 1012.2, Pg 233
37. c, IRC R317.1, item 1, Pg 49
c, IBC 2304.11.2.1, Pg 455
38. a, IRC R317.1, Item 4, Pg 49
a, IBC 2304.11.2.5, Pg 455
39. b, IRC R317.1 Item 5, Pg 49
b, IBC 2304.11.2.6, Pg 455

Chapter 4 Soil and Foundation

1. b, IRC R401.3, Pg 57
b, IBC 1804.3, Pg 367
Step 1: $120'' (10) \text{ Long} \times 5\% = 6'' \text{ Fall}$
Step 2: $6'' (\text{Fall}) \div 120'' (10) \text{ Long} = 0.05 \times 100 = 5.0\% \text{ Slope}$
2. a, IRC R401.3, Exception, Pg 57
a, IBC 1804.3, Pg 367
NOTE 1: Drain or swale is an approved means
Example: $96'' (8' \text{ long}) \times 2\% \text{ Slope} = 1.96 \text{ depth}$
Example: $2'' \text{ depth} \div 96'' \text{ long} = 0.020 \times 100 = 2\%$
23. c, IRC R405.1, Pg 82
c, IBC 1805.4.2, Pg 369
24. a, IRC R406.1, Pg 84
a, IBC 1805.2.2, Pg 368

Chapter 5 Flooring (IRC) & (IBC)

1. d, IRC Table R502.3.1(1), Pg 93
d, Pg 93, IBC Table 2308.8 (1), Pg 470
2. c, IRC Table R502.3.1(1), Pg 93
c, IBC Table 2308.8(1), Pg 469
3. c, IRC Table R502.3.1(2), Pg 94
c, IBC Table 2308.8(2), Pg 471
4. d, IRC Table R502.5(1), Pg 96
d, IBC Table 2308.9.5, Pg 479
b, IBC 2308.8.2, Pg 468
10. c, IRC R502.6.2
c, IBC 2308.8.2
11. c, IRC R502.7.1, Pg 91
c, IBC 2308.8.5, Pg 473
NOTE: $6:1 \text{ Ratio} (2'' \times 12'' = 2'' \times 6 (6:1) = 12'')$

Chapter 6 Wall Constructions (IRC) & (IBC)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. d, IRC R602.2 Exception, Pg 124
d, IBC 2308.9.1, Pg 473 2. a, IRC Table R602.3(1), Pg 126,
a, IBC Table 2304.9.1.2, Pg 447 3. c, IRC Table R602.3(1), Pg 128
c, IBC Table 2304.9.3, Pg 449 | <ol style="list-style-type: none"> 4. d, IRC Table R602.3(1), Pg 132
d, IBC Table 2304.9.1.6, Pg 454 5. b, IRC R602.3.1 Exception 1, Pg 124
b, IBC 2308.9.1, Pg 473 6. c, IRC R602.3.2, Pg 124
d, IBC 2308.9.2.1, Pg 473 |
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