# ARIZONA REGISTRAR OF CONTRACTORS CR-21 HARDSCAPING AND IRRIGATION SYSTEMS (RESIDENTIAL/COMMERCIAL)

#### **SCOPE OF WORK**

This classification allows the licensee to install, alter, and repair non-loadbearing concrete; uncovered patios, walkways, driveways made of brick, stone, pavers or gravel; wooden decks no higher than 29 inches above finish grade; decorative garden walls up to six feet from finish grade; fences and screens up to six feet from finish grade; retaining walls up to three feet from the finish grade of the lower elevation; free standing fire pits, fireplaces, or barbeques - electric, plumbing, and gas must be subcontracted to a properly licensed contractor; low voltage landscape lighting; water features that are not attached to swimming pools; including any necessary: electrical wiring of 120 volts or less, connection to potable water lines, backflow prevention devices, hose bibs, excavating, trenching, boring, backfilling, or grading; irrigation systems, including any necessary: electrical wiring of 120 volts or less, connection to potable water lines, backflow prevention devices, hose bibs, excavating, trenching, boring, backfilling, or grading; residential outdoor misting systems, freestanding or attached to existing appurtenance, not more than 1000 PSI (residential only); free standing and uncovered outdoor kitchens (residential only)--electric, plumbing, and gas must be subcontracted to a properly licensed contractor.

With the exception of free standing fire pits, fireplaces, or barbeques, this classification does not allow the licensee to install, contract for, or subcontract new electrical service panels, gas or plumbing lines, blasting, covered outdoor kitchens, gazebos, room additions, swimming pools, pool deck coatings, concrete driveways, load bearing walls, or perimeter fencing.

# of Questions	Minimum Passing Score	Time Allowed
75	70	180 minutes

### **CONTENT OUTLINE**

Subject Area	# of
Subject Area	Items
Irrigation Systems	15
Grading and Drainage	10
Low Voltage Electricity	10
Masonry	7
Plastering	7
Concrete	7
Fences and Retaining Walls	6
Rules and Regulations	5
General Knowledge	5
Safety	3

#### REFERENCE LIST

To find reference materials, you may use the link provided or search for the material online via a search engine such as Google. You may also go to PSI's online store at <a href="https://www.psionlinestore.com">www.psionlinestore.com</a>.

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

### The following reference material is allowed in the examination center:

Code of Federal Regulations - 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <a href="http://www.access.gpo.gov/nara/cfr/cfr-table-search.html">http://www.access.gpo.gov/nara/cfr/cfr-table-search.html</a>

OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, 3210 E Tropicana, Las Vegas, NV 89121, (800) 733-9267, <a href="www.psionlinestore.com">www.psionlinestore.com</a> (See order form at the end of the Candidate Information Bulletin.)

International Building Code, 2018, International Code Council, (800) 786-4452, www.iccsafe.org

International Residential Code for One- and Two-Family Dwellings, 2018, International Code Council, (800) 786-4452, www.iccsafe.org

## The following reference material <u>is not</u> allowed in the examination center:

Arizona 811 - Arizona Blue Stake Brochure, 2010, Arizona Blue Stake, (800) 782-5348, www.azbluestake.com

Arizona Registrar of Contractors Rules, 2009, Arizona Registrar of Contractors, (877) 692-9762, http://www.azroc.gov/

Simplified Irrigation Design, Pete Melby, 1995, 2nd Edition

Landscaping Principles and Practices, Jack E. Ingels, 2009, 7th Edition, www.cengage.com

Landscape Construction, David Sauter, 2011, 3rd Edition

Modern Masonry - Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, <a href="https://www.g-w.com">www.g-w.com</a>

Portland Cement Plaster/Stucco Manual, Portland Cement Association, 2003, 5420 Old Orchard Road, Skokie, IL 60077

Plastering Skills, 1984, F. Van Den Branden and Thomas L. Hartsell, 0-8269-0657-5, American Technical Publishers, Inc., 1115 W 175th St. Homewood, IL 60430

The Contractor's Guide to Quality Concrete Construction, Concrete Construction Practices ACI Committee E703, 4th edition (2018), American Concrete Institute

Design and Control of Concrete Mixtures, 2016, Steven H. Kosmatka, William C. Panarese, Portland Cement Association, 5420 Old Orchard Road, Skokie, Il 60077-1083, 847-966-6200, www.cement.org

Fences and Retaining Walls, William McElroy, 2012, Craftsman Book Company, (800) 829-8123, <a href="www.craftsman-book.com">www.craftsman-book.com</a>

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, annotated and/or indexed prior to the examination session. However, references may not be written in during the examination session. Any candidate caught

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writing, highlighting, underlining and/or indexing in the references during the examination will be reported to the Arizona Registrar of Contractors. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. (permanent tabs are defined as tabs that would tear the page if removed). Temporary tabs, (defined as Post-It notes, or other tabs that may be removed without tearing the page) are not allowed and must be removed from the reference before the exam will begin. If you are downloading from the Internet, you may bring this reference into the testing center with you as long as it is bound. You can have it spiral bound or you may hole-punch it and put it in a binder.

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