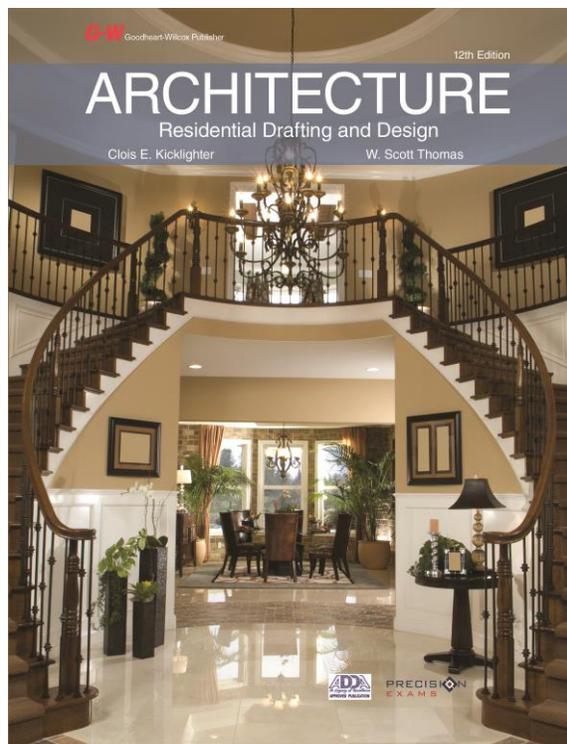


*Correlation of*  
**Architecture, Kicklighter and Thomas**  
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to  
**Precision Exams Architectural Design I**

Goodheart-Willcox is pleased to partner with Precision Exams by correlating *Architecture* to their Architectural Design I standards. Precision Exams standards and Career Skills Exams were created in concert with industry and subject matter experts to match real-world job skills and marketplace demands. Students that pass the exam and performance portion of the exam can earn a Career Skills Certification.

The correlation chart below lists the Standards, Objectives, and Indicators for the Architectural Design I exam in the left column. Corresponding content from *Architecture* that can be used by a student to help achieve the standard, objective, or indicator is listed in the right column.

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| Standards / Objectives / Indicators  | Textbook Pages               |
|--|------------------------------|
| <b>Standard 1: Understand, Demonstrate, and Apply Mathematics and Measuring Skills.</b>                |                              |
| Objective 1. Demonstrate and apply related mathematics.  | 143, 602, 784, 786, 796, 824 |
| Indicator 1 Perform basic arithmetic functions.  |                              |
| <ul style="list-style-type: none"> <li>• Add, subtract, multiply, and divide whole numbers.</li> </ul> | 78, 337, 600–601             |
| <ul style="list-style-type: none"> <li>• Add, subtract, multiply, and divide fractions.</li> </ul>     | 103, 404                     |
| <ul style="list-style-type: none"> <li>• Add, subtract, multiply, and divide decimals.</li> </ul>      | 76, 103, 337                 |

**Correlation of *Architecture* to Precision Exams Architectural Design I—page 2**

| <b>Standards / Objectives / Indicators</b>   | <b>Textbook Pages</b>   |
|--|-------------------------|
| Indicator 2 Convert fractions/decimals.  |                         |
| <ul style="list-style-type: none"> <li>Convert fractions to decimal equivalents.</li> </ul>  | 446                     |
| <ul style="list-style-type: none"> <li>Convert decimal values to nearest fractional equivalent.</li> </ul>   | 446                     |
| Objective 2. Demonstrate an ability to make and record basic measurements.   |                         |
| Indicator 1 Use scales, measuring tapes, and other techniques to take measurements.  | 73, 76–78, 429          |
| Indicator 2 Make and use measurements using fraction, foot-inch, and decimal-foot scales.  | 76–77, 104, 337         |
| Indicator 3 Record measurements using Cartesian and polar coordinates, as well as absolute and relative distances.   | 105–106                 |
| <b>Standard 2: Understand and Demonstrate Drawing Techniques.</b>  |                         |
| Objective 1. Demonstrate proper sketching techniques.  |                         |
| Indicator 1 Create freehand sketches using paper, pencil, and an eraser (without the benefit of a straightedge, compass, or template) which is neat, clear, and smudge-free. | 337, 381, 390, 655, 719 |
| Indicator 2 Understand and demonstrate the use of the alphabet of lines. Demonstrate the use of lines as they are drawn according to the alphabet of lines.                  | 87, 108                 |
| Indicator 3 Produce a one-view sketch of an object using proportional relationships.   | 78, 382                 |
| Indicator 4 Use letters and numerals that conform to an architectural style.   | 80, 89, 91–92, 386      |
| Indicator 5 Demonstrate how words and letters are to be evenly spaced.   | 80                      |
| Indicator 6 Understand and demonstrate the use of perspective views.   | 146, 634, 644, 652–653  |
| Indicator 7 Understand and use accepted dimensioning practices for sketches.   | 71, 88, 107, 116, 122   |
| Objective 2. Demonstrate an ability to create architectural drawings to a professional standard.   |                         |
| Indicator 1 Demonstrate exactness when producing drawing geometry.   | 72, 116, 125, 280       |
| Indicator 2 Drawing elements are accurate and drawn to scale.  | 111, 684, 794           |

**Correlation of *Architecture* to Precision Exams Architectural Design I—page 3**

| <b>Standards / Objectives / Indicators</b>   | <b>Textbook Pages</b>  |
|--|------------------------|
| Indicator 3 Use and know correct geometric construction techniques.  | 39, 121                |
| Indicator 4 Construct lines as defined by the alphabet of lines.   | 87, 108                |
| Indicator 5 Understand and correctly use object, hidden, and center lines.   | 88                     |
| Indicator 6 Understand and correctly use dimension lines, extension lines, and leader lines.                               | 88–89                  |
| Indicator 7 Identify border lines, phantom lines, and section lines and know their uses.                                   | 87–89                  |
| Indicator 8 Know and follow accepted architectural dimensioning standards to apply the appropriate dimensions to drawings. | 71                     |
| <ul style="list-style-type: none"> <li>Understand and choose the best location for dimensions.</li> </ul>                  | 58                     |
| <ul style="list-style-type: none"> <li>Apply appropriate spacing between the object and the first dimension.</li> </ul>    | 332–336                |
| <ul style="list-style-type: none"> <li>Apply uniform spacing between dimension lines.</li> </ul>                           | 166, 332–336           |
| <ul style="list-style-type: none"> <li>Demonstrate an ability to fully dimension the object.</li> </ul>                    | 332–336                |
| <ul style="list-style-type: none"> <li>Demonstrate the correct use of leaders and notes.</li> </ul>                        | 89, 111, 118, 298, 335 |
| <ul style="list-style-type: none"> <li>Use appropriate angles for leaders.</li> </ul>                                      | 89                     |
| <ul style="list-style-type: none"> <li>Use appropriate leader line terminators.</li> </ul>                                 | 89                     |
| Objective 3. Apply the appropriate notes to drawings.  |                        |
| Indicator 1 Understand the placement and use of title block information.   | 82, 111                |
| Indicator 2 Understand the placement and use of general notes.   | 755                    |
| Indicator 3 Use the correct text height.   | 111, 336, 389          |
| Indicator 4 Use architectural style letters and numerals.  | 87–92                  |
| <b>Standard 3: Develop and Demonstrate an Ability to Use Computer Software to Create Architectural Drawings.</b>           |                        |
| Objective 1. Know how to save, open, rename, and move data files using common computer operating system software.          |                        |

**Correlation of *Architecture* to Precision Exams Architectural Design I—page 4**

| <b>Standards / Objectives / Indicators</b>  | <b>Textbook Pages</b> |
|---|-----------------------|
| Indicator 1 Create a new drawing setup to support architectural standards.  | 111–112, 290–291      |
| Indicator 2 Create drawing setups for different sizes of drawing formats.   | 111–112, 290–291      |
| Objective 3. Revise existing architectural drawings using 2D or 3D computer-aided design software features.   | 99                    |
| Objective 4. Produce hard copies of drawings using correct printer/plotter settings.  | 102–103, 298          |
| Indicator 1 Print/plot drawings using the appropriate scale settings.   | 99–100, 102–103, 111  |
| Indicator 2 Print/plot drawings with correct line widths.   | 107–108               |
| <b>Standard 4: Understand Architectural Design Fundamentals.</b>  |                       |
| Objective 1. Identify the historical influences that contributed to current home styles.  | 3–23                  |
| Objective 2. Recognize and describe the design elements of contemporary dwellings.  | 3–23                  |
| Objective 3. Discuss current trends in architecture.  | 28–29                 |
| Objective 4. List family needs that should be considered when planning a dwelling.  | 135–141               |
| Objective 5. Discuss accessibility requirements for good functional utility.  | 141–142, 155–157, 159 |
| <b>Standard 5: Understand and Apply Architectural Room Planning for the Sleeping, Living, and Service Areas.</b>  |                       |
| Objective 1. Discuss factors important in the design of bedrooms, bathrooms, and closets. Apply those design elements to sketches and drawings.                                   | 185–202               |
| Objective 2. Discuss factors important in the design of family rooms, living rooms, entryways, foyers, porches, and courts. Apply those design elements to sketches and drawings. | 155–181               |
| Objective 3. Discuss factors important in the design of kitchens, clothes care centers, and garages. Apply those design elements to sketches and drawings.                        | 205–223               |
| Objective 4. Discuss home construction costs using the cost per square foot. Discuss cost per type of construction, affordability, and the cost of amenities.                     | 823–833               |
| <b>Standard 6: Understand How to Lay Out a Residential Floor Plan.</b>  |                       |
| Objective 1. Draw a residential floor plan using the accepted symbols and techniques.   | 327–335, 341–348      |

**Correlation of *Architecture* to Precision Exams Architectural Design I—page 5**

| <b>Standards / Objectives / Indicators</b>  | <b>Textbook Pages</b>  |
|---|------------------------|
| Objective 2. List the information required on a typical floor plan.   | 328–343                |
| Objective 3. Represent typical materials using standard architectural symbols.  | 328–333, 335, 341–342  |
| Objective 4. Draw the dimensions of a floor plan in a clear and precise manner which complies with architectural standards. | 332–337                |
| Objective 5. Recognize the difference between a good and poor drawing of a floor plan.                                      | 162–163                |
| <b>Standard 7: Understand How to Analyze, Calculate, and Design Footings and Foundations.</b>                               |                        |
| Objective 1. List the major considerations when designing a footing for a residential foundation.                           | 432–434                |
| Objective 2. Analyze a typical floor plan to determine the appropriate foundation.  | 433–441                |
| <b>Standard 8: Understand How to Lay Out Exterior Elevations.</b>   |                        |
| Objective 1. List features that should be included on an exterior elevation.  | 565–573                |
| Objective 2. Identify the dimensions commonly shown on elevations.  | 570, 572, 576–577      |
| Objective 3. Illustrate symbols that are often found on elevations.   | 570, 572–574, 576–577  |
| Objective 4. Draw a typical exterior elevation which demonstrates proper techniques.  | 573–580                |
| <b>Standard 9: Understand How to Lay Out Wall Construction.</b>   |                        |
| Objective 1. Name the components of a typical frame wall.   | 485–489                |
| Objective 2. Draw and label a typical wall section and full cross sections.   | 502, 510, 513, 546–550 |
| <b>Standard 10: Understand How to Complete a Door and Window Schedule.</b>  |                        |
| Objective 1. Draw a window schedule that would include window size, make, material, and type of glazing.                    | 113–114, 537–541       |
| Objective 2. Draw a door schedule that would include door size, style, type of lock set, special features, and jamb size.   | 113, 520, 523–526      |