What’s Changed in Architectural Cabinets?

AWS Section 10 Casework

Presented by: Greg Lutz
Learning Objectives

- Learn how the AWI Quality Standards evolved into the Architectural Woodwork Standards
- Learn how to navigate the new Architectural Woodwork Standards for Casework
- Gain specific knowledge about exposed, semi-exposed and concealed surfaces on Casework
- Learn how to integrate design and specification for balanced cost-benefit decisions for Casework

Evolution of the AWS

1. New layout
2. Information grouped and organized differently.
   - Basic considerations
   - Recommendations
   - Industry Practices
   - Product Rules
   - Execution
   - Compliance

How has the QSI evolved into the AWS?

- Installation of casework included in section 10
- Execution, compliance sections address installation
- Counters in separate section
Natural Variations in Wood

Wood is a natural material, with variations in color, texture and figure. These variations are influenced by the natural growing process and are uncontrollable by the woodworker. The color of wood within a tree varies between the "sapwood" (the outer layers of the tree which continue to transport sap), which is usually lighter in color than the "heartwood" (the inner layers in which the cells have become filled with natural deposits). Various species produce different grain patterns (figures), which influence the selection process. There will be variations of grain patterns within any selected species. The architectural woodworker cannot select solid lumber cuttings within a species by grain and color in the same manner in which veneers may be selected. Color, texture, and grain variations will occur in the finest architectural woodworking.
Basic Considerations: Surface Finish

- Exposed Exterior
- Exposed Interior
- Concealed
- Semi-Exposed

Basic Considerations: Casework Styles

- Style 1
  - Type A
  - Type B
- Style 2
  - Type A
  - Type B

Basic Considerations: Grain Direction at Stile-and-Rail Doors & Drawer Fronts

- Stile and Rail
**Material Rules: Exposed Exteriors**

- **Wood Casework Exposed Exterior**

**Product Rules: Hinges**

- **Wraparound hinges, as applicable, shall be let into the edge of the door to maintain proper gap tolerance.**

**Product Rules: Fixed and Adjustable Shelving**

- **Fixed / Adjustable Shelves**

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**Product Rules: Shelves**

- **At Grade I hinges, doors:**
  - Under 40" (1016 mm) in height shall have a minimum of two hinges.
  - 40" (1219 mm) to 60" (1524 mm) height shall have a minimum of three hinges.
  - Over 60" (1524 mm) in height shall have a minimum of four hinges.

- **At Grade II hinges, doors:**
  - Under 40" (1016 mm) in height shall have a minimum of two hinges.
  - 40" (1016 mm) to 60" (1524 mm) in height shall have a minimum of three hinges.
  - Over 60" (1524 mm) to 80" (2031 mm) in height shall have a minimum of five hinges and an additional hinge for every 18" (457 mm) of additional height.

**Hinges per door**

- X = Door height
- Y = Number of hinges

**NOTE:** The distance between the top and bottom hinges must be greater than the width of the door.
Product Rules: Metal Shelf Standards and Bored Hole Shelf Supports

- Metal Shelf Standards
- Bored Hole Shelf Supports

Product Rules: Joinery

- Dadoes, Lock Joints, Plows, Rabbets, Dowels, Dowel Screws, or Biscuit Joining Plates

Modified Shelf Hole Drills

- Adjustable Shelf Techniques/Support
- Dual Pins ??
- Premium Grade
- Centerline of hole described

Execution

- Well Matched for Color & Grain

REPAIRS are allowed, provided they are neatly made and inconspicuous when viewed at:

- 6.1.3.1 72" (1830 mm) E
- 6.1.3.2 48" (1219 mm) G
- 6.1.3.3 24" (610 mm) P
AWS - Section 10 Casework

“TYPE A” construction for cabinets is:

1. Flush overlay
2. Reveal overlay
3. Lipped
4. All the above

Exposed exterior surfaces required to be finished include:

1. The underside of cabinet bottoms over 42” AFF
2. The underside of cabinet bottoms over 48” AFF
3. The underside of cabinet bottoms over 50” AFF
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2. The underside of cabinet bottoms over 48” AFF
3. The underside of cabinet bottoms over 50” AFF

Requirements for Wood Casework exposed exterior, transparent finish-Custom Grade include:

1. Use of one species for the entire project
2. No use of ROTARY-CUT VENEER
3. Solid stock and/or plywood to be COMPATIBLE IN COLOR AND GRAIN
4. All the above

The following requirements apply to which grade?

4.4.6.9.2.6 WRAPAROUND hinges, as applicable, shall be let into the edge of the door to maintain proper gap tolerance.

Exposed door edges resulting from the NOTCHING for hinges are required to be painted or stained to match.

1. Economy
2. Custom
3. Premium
The following requirements apply to which grade?

4.4.6.9.2.6 WRAPAROUND hinges, as applicable, shall be let into the edge of the door to maintain proper gap tolerance.

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1. Economy
2. Custom
3. Premium

Is Miter-Fold drawer construction compliant for Custom Grade?

1. Yes
2. No
3. Only in the Northwest

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Drawer bottoms plowed into sides, fronts, and sub-fronts shall have how many inches of shoulder remaining?

1. 1/4” [6.4mm]
2. 3/8” [9.5mm]
3. 1/2” [12.7mm]
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Glossary page 386 – Dowel? Errata ??
Drawer Construction

Section 10-4.2.8.2.4

- Premium Grade: Same Pattern, Color & Thickness Both Faces Page 264
- Custom and Economy Grades: Laminate of Same Material and Thickness as the Face Page 264

Balanced Construction

AWS... The Common Language

- Design Intent or Design Concept
- Finishes
- Level of Quality
- Details
Grain Direction

10-4.2.1.2 CUSTOM GRADE
[Grain] Shall run and match VERTICALLY within each cabinet unit, including doors, drawers, false fronts, and finished ends.
See 1.2.19.2.2, page 252

Blocking

Blocking Requirements:
Who is responsible and what is required?
-Section 6.1.12.1, Page 291

Who is Going to Clean Up This Mess?

A Closer Look
Review Objectives

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Questions?

This concludes The American Institute of Architects Continuing Education Systems Course

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