

**102.114 – CASEWORK DESIGN GUIDELINE**

## PART 1 - INTRODUCTION

## 1.01 OVERVIEW

- A. The guideline shall be used in conjunction with the requirements for the standards by building type when designing and specifying casework for BJC HealthCare projects.
- B. This guideline includes general information, descriptions and requirements for cabinets and countertops.
- C. This guideline addresses typical fabricated custom plastic laminate casework and does not include laboratory grade, stainless steel, or other types of specialty casework.
- D. This guideline addresses typical countertops including plastic laminate and solid surface types.
- E. This guideline does not include specialty countertops such as solid phenolic, stone, manufactured stone, stainless steel, or other specialty type countertops.
- F. This guideline identifies fabrication and installation characteristics of casework with respect to the Architectural Woodwork Standards (AWS), as developed by the Architectural Woodwork Institute (AWI). The most current edition of the AWS shall apply. In some instances, BJC's standards are more stringent than is allowed by the referenced grade. Refer to chapters 2 thru 6 for casework requirements by building type.
- G. The AWS identifies 3 grades of casework. They are in order of highest to least quality of materials and workmanship:
  - 1. Plastic laminate faced cabinets
    - a. Premium Grade.
    - b. Custom Grade.
    - c. Economy Grade (not permitted).
  - 2. Countertops. Plastic laminate and solid surface countertops are included in both premium and custom grade. Specialty countertops such as solid phenolic, epoxy resins, natural stone and manufactured stone are only offered in premium grade.
    - a. Premium Grade.
    - b. Custom Grade.
    - c. Economy Grade (not permitted).

- H. For most projects, casework is both furnished and installed by the Contractor. Missouri Baptist Medical Center may furnish casework components that are to be installed by the Contractor. When occurs, coordinate with BJC Project Manager and MBMC Facilities.

## 1.02 DEFINITIONS

- A. Cabinet surfaces (faces and edges) are defined in AWS by the following categories:

1. **Exposed Surfaces.** Those surfaces exposed to view when doors and drawers are in a closed position (while not typical, this can include portions of interior cabinets visible through transparent door faces).
  - a. All surfaces visible when doors and drawers are closed, including knee spaces.
  - b. Underside of cabinet bottoms over 42" (1067 mm) above the finished floor, including cabinet bottoms behind light valances and the bottom edge of light valances.
  - c. Cabinet tops under 80" (2032 mm) above the finished floor, or if 80" (2032 mm) and over and visible from an upper building level or floor.
  - d. Front edges of stretchers, ends, divisions, tops, and bottoms.
  - e. Sloping tops of cabinets that are visible.
2. **Semi-Exposed Surfaces** are those interior surfaces only exposed to view when doors or drawers are in an open position.
  - a. Tops and bottoms of shelves, including front edge-banding (front edge is an exposed surface).
  - b. Divisions and partitions (front edge is an exposed surface).
  - c. Interior face of ends (sides), backs, and bottoms (including a bank of drawers). Also included are the interior surfaces of cabinet top members 36" (914 mm) or more above the finished floor.
  - d. Drawer sides, sub fronts, backs, and bottoms.
  - e. The underside of cabinet bottoms between 24" (610 mm) and 42" (1067 mm) above the finished floor.
  - f. Security and dust panels or drawer stretchers.
3. **Concealed Surfaces** are all other surfaces that are fully covered, concealed or not exposed to view.
  - a. Toe space unless otherwise specified.
  - b. Sleepers, stretchers, and solid sub tops.
  - c. The underside of cabinet bottoms less than 24" (610 mm) above the finished floor.
  - d. The underside of countertops, knee spaces, and drawer aprons.
  - e. The flat tops of cabinets 80" (2032 mm) or more above the finished floor, except if visible from an upper floor or building level.
  - f. The three non-visible edges of adjustable shelves.
  - g. The faces of cabinet ends of adjoining units that butt together.

- B. Countertops surfaces (faces and edges) are defined in AWS by the following categories:
1. **Exposed Surfaces.** Includes all visible surfaces of a countertop.
  2. **Semi-Exposed Surfaces** – not applicable
  3. **Concealed Surfaces.** Includes the following surfaces that are fully covered or concealed.
    - a. Any underside surface which is 42” or less off the finished floor
    - b. All non-visible surfaces attached to and/or covered by another
    - c. All non-visible blocking and spacers used for attachment

**PART 2 - GUIDELINE**

**2.01 GENERAL**

- A. The following table indicates the minimum grade acceptable for use based on general building areas. Economy Grade is not permitted in any instance. Refer to building type standards for specific requirements and exceptions.

*Table. Casework grade by Building Type and area within building*

KEY NP NOT PERMITTED CP CONDITIONALLY PERMITTED UPON APPROVAL P PERMITTED  Architectural Woodwork Standards (AWS) grade designation	HOSPITAL BUILDING				AMBULATORY CARE BUILDING			MEDICAL OFFICE BUILDING		ALL OTHER NON-CLINICAL BUILDINGS	
	Inpatient Areas	Diagnostic and Treatment Areas	Clinical Support Areas	Building Support Areas	Diagnostic and Treatment Areas	Clinical Support Areas	Building Support Areas	Diagnostic and Treatment Areas (Tenant Lease areas)	Building Support Areas	Primary Public and Entry spaces	All other remaining areas
Premium Grade	P	P	P	P	P	P	P	CP	CP	CP	CP
Custom Grade	NP	NP	NP	NP	NP	NP	CP	P	P	P	P
Economy Grade	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP

- B. **Plastic laminate horizontal and vertical surfaces shall be smooth and not textured unless otherwise directed by BJC Director of Design.**
- C. Quality control, quality assurance and certification requirements.
1. Fabrication and installation shall comply with the most current edition of the Architectural Woodwork Standards (AWS).
  2. It is preferred, but not required, for fabricators and installers to be members of, and certified by, the Architectural Woodwork Institute (AWI).
  3. Fabricated cabinets and casework are not required to be inspected, certified and labeled by an AWI inspector.

4. Fabricators and installers shall have a minimum of 5 continuous years providing casework for hospitals and other clinical environments.
- D. Coordinate casework clearances with fixtures and equipment. Verify with BJC Clinical Asset Management for size and clearance requirements.
1. Microwave shelf. Where standard base cabinets include an opening for the installation of a microwave oven (below the countertop), the shelf on which the microwave oven sits shall extend at least to the outside face of the drawer beneath.
  2. Ice machine. Coordinate the plumbing requirements for counter ice machines with counter and base cabinet. When required, backflow preventers beneath the fixture can limit the use of the base cabinet.
  3. Undercounter refrigerators. Verify the height of the unit with respect to the counter thickness and the height of the counter above finished floor. Coordinate electrical requirements.

## 2.02 CABINETS

- A. Custom-fabricated plastic laminate faced cabinets are the most common type of cabinet. Other cabinet types such as steel, stainless steel, solid phenolic and others may be required based on project specific requirements. Refer to Room Data Sheets for conditions.
- B. Unless otherwise directed, cabinets shall be constructed as frameless, flush overlay type.
- C. Cabinets shall be fabricated and installed in accordance with the AWS grade specified.
- D. Core Material.
1. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.
  2. Composite Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.
    - a. Medium-Density Fiberboard: ANSI A208.2, Grade 130, made with binder containing no added urea formaldehyde.
    - b. Particleboard: ANSI A208.1, Grade M-2, made with binder containing no added urea formaldehyde.
    - c. Agrifiber: Not permitted.
  3. Thermoset Decorative Panels: Only permitted in areas indicated in the standards and in accordance with the casework grade. In general, thermoset decorative overlay (melamine) may be used for drawer bottoms, sides and backs, in concealed areas, and semi-exposed areas of Custom Grade cabinets only. Unless otherwise indicated, panels shall be particleboard or medium-density fiberboard finished with thermally fused, melamine-impregnated

decorative paper and complying with requirements of NEMA LD 3, Grade VGL, for test methods 3.3, 3.4, 3.6, 3.8, and 3.10.

### 2.03 COUNTERTOPS

- A. Provide solid polymer surface type countertops at all locations including clinical areas (patient areas), all wet locations including counters with sinks, and in areas subject to moderate use.
- B. Provide plastic-laminate type counters only in non-clinical areas, non-patient areas, light-duty areas, and areas not exposed to liquids.
- C. Provide other countertops as necessary based on project requirements.
- D. Refer to building standards and Room Data Sheets for specific requirements.
- E. Consider types of chemicals to be used and provide countertops that will not be stained, etched, or otherwise damaged from use of chemicals.
- F. Unless otherwise directed, countertops include 4" high backsplashes and side splashes when abutting vertical walls.
- G. Countertops shall overhang the outermost face of the base cabinet below by 1".
- H. Countertop exposed edge shall be 1-1/2" thick, unless otherwise directed.

## PART 3 - DOCUMENTATION

### 3.01 GENERAL

- A. Indicate type of cabinet and type of countertop on the drawings.
- B. Indicate the grade of casework on the drawings. Where more than one casework grade occurs in a project, identify in the drawings and in the details where each grade occurs.
- C. Indicate sealant joints of cabinets and counters to walls, hard surfaced floors, and gypsum board ceilings.
- D. Indicate filler strips on drawings.
- E. Indicate door and drawer locks on drawings.
- F. Indicate back splash and side splash on drawings.
- G. Provide drawing showing edge conditions of shelves and counter edge conditions.
- H. Indicate finished flooring to be continuous beneath base cabinets.
- I. Clearly dimension heights of counters and wall cabinets above finished floor.
- J. Indicate ADA requirements including clear floor space at fixtures.
- K. For projects involving casework, include the following note on the drawings: **“All wood components, including but not limited to cabinets, doors, drawers, nailers, blocking, and cleats in exposed and semi-exposed areas of casework shall be**

**faced with plastic laminate or a non-porous facing in accordance with the specified casework grade.”**

#### PART 4 - SUPPORTING INFORMATION

##### 4.01 REFERENCES

- A. Refer to “*102 114.01 Casework Grade – Images*” for graphic depictions of materials for Premium and Custom Grade.
- B. Refer to “*102 114.02 Casework Grade – Technical Comparison*” for detailed analysis of Premium and Custom Grade and as compared to BJC’s modified requirements.
- C. Refer to Ergonomic Guideline in Chapter 1 for requirements regarding heights of counters, reach range, wall cabinet heights, etc.

END OF DOCUMENT

**RESPONSIBILITY MATRIX**

The following matrix identifies those individuals, roles or departments responsible for maintaining the accuracy of the information and those responsible for providing input. Refer to Preface for detailed explanation.

	BJC HealthCare													Hospital/Entity				
	PD&C						Clinical Asset Management (CAM)	Risk Management	Real Estate	Ergonomics	Infection Prevention (IP)	Info Systems, Data, Telecom (IS)	Other:	Standards Review Committee	Facilities Engineering	Housekeeping	Security	Other:
	Corporate Architect	Corporate Engineer	Director of Planning	Director of Design	Director of Construction	Other:												
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**DOCUMENT REVISION HISTORY**

The following table indicates the date the document originated and any subsequent revisions.

Document 102.114 - Casework Guideline		
Issue	Description of Issue	Prepared by
2012 v1	Original Issue	G. Zipfel
2016 v1	Reorganized and updated multiple sections	G. Zipfel
2018 v1	Reorganized and updated	G. Zipfel