

HOSPITAL STANDARDS

203.301 BUILDING COMPONENTS, INTERIORS, INTERIOR CONSTRUCTION

This document contains requirements for interior construction elements for a hospital building and is in alignment with the UniFormat II, Level 2 classification - C10. The document is subdivided into the following parts per the UniFormat II, Level 3 classifications.

UNIFORMAT II classification					MoP Document Number	
Level 1 Major Elements		Level 2 Group Elements		Level 3 Individual Elements		
C	Interiors	C10	Interior Construction	C1010	Partitions	203.301
				C1020	Interior Doors	
				C1030	Accessories/Fittings	
				C1031	Fabricated Toilet Partitions	
				C1038	Casework	

ELEMENT C1010, PARTITIONS. Includes general design requirements for fixed non-loadbearing partitions and interior glazed window units. Specific items of note include:

1. Acoustical performance
2. Rating and Labeling requirements
3. Material considerations
4. Blocking requirements

ELEMENT C1020, INTERIOR DOORS. Includes general design requirements for swing and sliding type doors, door frames, operations, and finishing. Specific items of note include:

1. Minimum size requirements
2. Materials
3. Performance requirements
4. Door hardware

ELEMENT C1030, ACCESSORIES/FITTINGS. Includes general design requirements for toilet and bath accessories, metal lockers, soap and foam dispensers, signs, privacy curtains and tracks, and other pre-manufactured accessories. Specific items of note include:

1. Furnish/Install table
2. Material requirements
3. Mounting requirements

ELEMENT C1031, FABRICATED TOILET PARTITIONS. Includes general design requirements for toilet partitions and screening panels. Specific items of note include:

1. Acceptable materials
2. Mounting requirements

[ELEMENT C1038, CASEWORK](#). Includes general design requirements for built-in base cabinets, wall cabinets, counter tops, and cabinet hardware. Specific items of note include:

1. Casework Grade
2. Ergonomics
3. Construction Requirements
4. Core Material
5. Cladding Material
6. Countertop requirements
7. Hardware
8. Design requirements
9. Installation requirements

ELEMENT C1010, PARTITIONS

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PART 1 - GENERAL**1.01 OVERVIEW**

- A. Includes fixed partitions, moveable partitions, interior windows, and storefronts.
- B. Includes requirements for all areas within a hospital building, including tenant lease areas when occurs.
- C. Includes information for preparing wall surfaces to receive wall finishes but does not include wall finish requirements.

PART 2 - DESIGN CRITERIA**2.01 GENERAL**

- A. Interior partitions shall be 3-5/8 inch wide, 22 gauge (or structurally equivalent) metal studs at 16 inches on center with one layer of 5/8 inch gypsum drywall each side, minimum.
- B. Provide wider and/or heavier than 22 gage studs as required for extra unsupported height or wall-mounted shielding or equipment per the project requirements. Provide double 20 gauge (or structurally equivalent) studs at each door jamb.
- C. Provide moisture resistant gypsum wallboard at all wet areas and toilet rooms. Provide cement board or tile backer board at walls to receive ceramic tile.
- D. Provide abuse or abrasion resistant gypsum board at locations subject to impact.
- E. Design Team shall coordinate locations of blocking and strapping and indicate locations on the drawings. This includes coordination with Owner-provided items including but not limited to equipment, medical equipment, accessories, artwork, and impact resistant design.
- F. In most conditions and as permitted by code and authorities having jurisdiction, provide treated wood blocking within walls as permitted, for the following conditions.
 - 1. To resist impact loads (crash rails, handrails, etc.).
 - 2. To support heavy objects and/or when the center of gravity is far from the support points (articulating arms).
 - 3. When the item it is supporting may be removed and reinstalled in the same location multiple times (grab bars). Blocking in wall for grab bars shall be

designed to support a static of 800 lbs at any point along the length of the grab bar.

- G. Metal stud/strapping shall be used for adjustable shelves and light weight wall-mounted equipment.
- H. All penetrations through new fire/smoke rated partitions shall be sealed to provide a rating equal to or greater than the rating of the partition. Existing noncompliant penetrations through rated partitions in a Project area shall be identified, and properly sealed as a part of the scope of work for the Project.
- I. **Rated Walls.** All smoke and/or fire-rated walls shall be labeled to clearly identify the type and rating of the barrier. The label shall be in uppercase block letters at least 3” in height and in a color and shade to sharply contrast against the background surface as follows.

Label	Text Color	Background Color
Smoke Barrier	Yellow	Dark Gray
Smoke Wall	Yellow	Dark Gray
Corridor Wall	Yellow	Dark Gray
1 Hour Fire [Wall] [Barrier] [Partition]	Red	Light Gray or White
2 Hour Fire [Wall] [Barrier] [Partition]	Red	Light Gray or White
3 Hour Fire [Wall] [Barrier] [Partition]	Red	Light Gray or White
4 Hour Fire [Wall] [Barrier] [Partition]	Red	Light Gray or White

- J. Markings for rated wall assemblies shall be permanent and may be left by either stamp, roller ink, or paint. Ink and paint must meet requirements for indoor air quality.
 - 1. Walls in finished spaces shall be labeled on both sides above the ceiling grid
 - 2. Walls in unfinished spaces shall be labeled on both sides ten feet off the floor, or 18” below the deck above
 - 3. Markings shall repeat every 15 feet max. along the length of entire wall. In areas where mechanical, electrical, plumbing, structural or other obstructions make it difficult or not possible to install the markings at this interval, the label shall be permitted to repeat at intervals greater than 15 feet.
- K. Markings for columns: All columns shall be marked above the ceiling on all interior-facing sides indicating the alpha-numeric column designation per the structural plans. The label shall be in uppercase block letters at least 3” in height and in a color and shade to sharply contrast against the background surface.
- L. Unless otherwise required to meet code requirements, minimum gypsum board level of finish for all walls shall be Level 3 for concealed wall surfaces and Level 4 for all other wall surfaces.

2.02 PUBLIC AREAS

- A. Provide walls that meet the Sound Transmission Class (STC) as identified in the following table. Where other room to room conditions exists, provide a minimum STC wall rating of 45.

Table. Minimum STC ratings between room types in public spaces.

	Unit or Department boundary	Lobby	Public Corridor	Public Bathroom	Mechanical Room	Elevator	Stair
Unit or Department boundary	55	55	55	50	50	50	50
Lobby			Rooms not acoustically separated	50	50	45	40
Public Corridor				50	50	45	40
Public Bathroom				50	50	45	40
Mechanical Room						Rooms not needed to be acoustically separated	40
Elevator							Rooms not needed to be acoustically separated
Stair							

- B. Provide full height (floor to deck) partitions at core elements such as mechanical, electrical, security, and telecommunications rooms, stairs, elevator shafts, chases and toilets, at rated walls, private offices, conference rooms, tenant demising walls and break rooms.
- C. Partitions surrounding elevator shafts shall be designed and sized to accommodate all internal structural members completely within the required fire resistance rated construction, while maintaining the shaft wall rating without interruption.
- D. Partitions surrounding fire resistance rated exit enclosures and exit passageways shall not be penetrated by mechanical/electrical utilities which do not serve the enclosure/passageway, except as permitted by Code.

2.03 HOSPITAL DEPARTMENTS/UNITS

- A. Refer to Room Data Sheets for interior partition requirements within hospitals, including acoustical performance.

PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS**3.01 GENERAL**

- A. Identify rated smoke/fire rated wall requirements in plans. Include existing ratings to remain and include areas beyond the limits of construction.
- B. In addition to incorporating all applicable life safety and building code requirements, provisions described within this Element shall be included within the Project's contract documents.
- C. Coordinate with the Mechanical Contractor for locations where penetrations of smoke/fire dampers and associated ductwork are to be removed at existing partitions. Indicate patching requirements of rated walls in the documents.
- D. Drawings shall clearly identify where non-rated partitions are to be constructed in front of rated walls and note that additional labeling shall be provided on the non-rated partition to identify the rated wall if the non-rated partition extends more than 12 inches above ceiling line. (Example of additional labeling: "2-Hour Fire Rated Barrier Behind This Partition – Do Not Penetrate.")
- E. The location, size, and quantity of back boxes, enclosure panels, and similar items which are mounted in, and penetrate the membrane of, fire resistance rated partitions shall be coordinated with limiting requirements contained in the governing Codes. Drawings shall indicate by detail drawing and notation the limitation/allowance criteria for each type of listed and non-listed (non-rated) item that may be installed in fire resistance rated partitions.
- F. Drawings shall include complete reproductions of all UL designs for fire resistance rated partitions and associated joints which are referenced on the Project. Indicate appropriate UL designs for joints at head and base of wall, and the selected UL design for each fire resistance rated partition. Refer to UL online certifications directory database for complete listing of joint designs.
- G. Detail termination of reveals at change of finish, especially at base. Avoid gaps and holes at reveal termination, and ensure ease of finish application in reveal design. Call for application of final finish, where possible, to the back of reveal prior to construction of remainder of reveal.
- H. Fully detail fire resistance rated walls to extend around/behind unrated items mounted in the wall, such as fire extinguisher cabinets, safety showers, etc.
- I. Identify STC ratings for all partition types on drawings and verify compliance with requirements above.**

PART 4 - PRODUCTS**4.01 GENERAL**

A. Not Applicable.

End of C1010 – Partitions

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ELEMENT C1020 – INTERIOR DOORS

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PART 1 - GENERAL**1.01 OVERVIEW**

- A. Includes interior solid core wood doors, steel doors and frames, aluminum and glass doors and frames, and door hardware for door openings.
- B. Includes requirements for both public and clinical areas of hospital buildings.
- C. This does not include exterior doors nor does it include the inner pair of entrance vestibule doors.

PART 2 - DESIGN CRITERIA**2.01 GENERAL**

- A. Provide doors and frames that comply with specific entity standards and requirements.
- B. Typical doors shall be 7'-0" high and 1 ¾" thick unless otherwise directed. Minimum door width shall be 3'-0" except all single-leaf doors used by patients/visitors shall be 3'-6" wide, minimum.
- C. Determination of the door and frame type depends on type of room, existing conditions, and operating requirements. Refer to the following table for general requirements by areas within buildings. Refer to Room Data Sheets for specific door, frame and operational requirements by room.
- D. Determination of the door and frame finish. Coordinate all finishes with BJC Director of Design and include samples for selection and samples for verification during Design Development.
 - 1. Where new interior wood core doors will be near wood core doors that are scheduled to remain, consider one of the following options unless otherwise directed.
 - a. Where only a few doors are scheduled to be new, match existing door finishes (plastic laminate or wood veneer species, cut and finish) with doors adjacent to the project area.
 - b. Where most doors are scheduled to be new, consider installing new doors in contiguous areas immediately adjacent to the project area so the design is integrated when matching existing door finishes is not preferred.

E. Permitted Door and Frame Types. The following table identifies permitted door and frame types for public and tenant fit-out areas of an hospital building.

Table. Materials for interior door frames and doors

KEY NP NOT PERMITTED CP CONDITIONALLY PERMITTED UPON APPROVAL P PERMITTED		HOSPITAL BUILDING				AMBULATORY CARE BUILDING				MEDICAL AND ADMIN. OFFICE BUILDING			
						Shell and Core		Tenant Fit-Out		Shell and Core		Tenant Fit-Out	
		Building Support, utility rooms	Non-Clinical Rooms and Areas	Clinical Patient Care Areas	Invasive Procedure and Sterile Rooms	Building Support, utility rooms	Other Shell and Core rooms	Clinical Patient Care Areas	Invasive Procedure and Sterile Rooms	Building Support, utility rooms	Other shell and Core Rooms	Tenant rooms within Lease space	
Interior Doors and Frames	Frames	Hollow Metal, knock-down type	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	P
		Hollow Metal, face welded type	P	P	NP	NP	P	P	NP	NP	P	P	CP
		Hollow Metal, full profile welded type	P	P	P	NP	P	P	P	NP	NP	NP	NP
		Stainless Steel, fully welded type	NP	NP	NP	P	NP	NP	NP	P	NP	NP	NP
		Aluminum	NP	CP	CP	CP	NP	CP	CP	CP	NP	NP	NP
	Doors	Wood Core, wood veneer	NP	CP	CP	NP	NP	CP	CP	NP	NP	P	P
		Wood Core, plastic laminate veneer	NP	P	P	NP	CP	P	P	NP	NP	CP	CP
		Hollow Metal, paint finish	P	NP	NP	NP	P	NP	NP	NP	P	NP	NP
		Stainless Steel	NP	NP	NP	P	NP	NP	NP	P	NP	NP	NP
		Aluminum	NP	CP	CP	CP	NP	CP	CP	CP	NP	NP	NP

F. Hollow Metal Frames. Frames shall be 0.053” thick, minimum and fabricated from cold-rolled steel sheet in accordance with ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications. Unless otherwise directed, all frames shall be heavy-duty type minimum in accordance with SDI A250.8, Level 2. Provide extra-heavy duty type as necessary.

1. **Grouting of interior metal frames is not permitted.**
2. **Hospital stops not permitted.**

G. Hollow Metal Doors. Door faces shall be uncoated 0.042” thick, minimum and fabricated from cold-rolled steel sheet in accordance with ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications. All doors shall be heavy-duty type in accordance with SDI A250.8, Level 2. Provide extra-heavy duty type as necessary.

1. Edge construction. Unless otherwise noted, hollow metal doors are permitted to be fabricated as Model 1, Full Flush, in accordance with SDI A250.8 only in

non-clinical areas. Model 2, seamless, is required in clinical areas. (The Model 1, Full Flush creates a visible, vertical folded metal seam along the door edge while the Model 2, seamless type, requires the seam to be filled flush and finished so there is no visible joint between the panels.)

- H. **Solid Core Wood Doors.** Solid core wood doors shall be flush wood type unless otherwise directed. Solid core wood doors shall be Heavy Duty Performance Grade in accordance with WDMA I.S.1-A. Provide extra-heavy duty type as necessary. All edges shall be faced/edged so that no wood core material is exposed.
1. Core material for all solid core wood doors shall be particleboard in accordance with ANSI A208.1 Grade LD-2, unless otherwise directed.
 - a. Provide wood blocking in cores as necessary.
 - b. Provide either glued wood stave or structural composite lumber cores for all doors with exit devices.
 - c. Provide mineral core doors for fire rated doors as required.
 - d. Door construction shall be 5 plies minimum.
 2. **Wood Veneer Face.** Conditionally permitted. When new doors are required to match existing doors, provide similar grade, species, cut and finish. Field staining and finishing may be required in instances where existing doors are custom finish.
 - a. Grade: Premium grade with Grade A faces.
 - b. Species: Select White Birch, Cherry, Select White maple, Red Oak, Walnut, or White Oak.
 - c. Cut: Plain sliced, typical.
 - d. Match between veneer leaves: Book match
 - e. Assembly of Veneer leaves on door faces: Running
 - f. Provide factory finish on all wood veneer doors.
 3. **Plastic-Laminate Face.** Permitted.
 - a. Grade: Premium grade.
 - b. High Pressure Decorative Laminate: HGS 0.048" (1.2 mm) thick.
- I. **Door Hardware.** Design Professional shall coordinate door operation with intended use as necessary and communicate general door function as requested. Coordinate requirements with the Room Data Sheet.
1. Use wall mounted door bumpers or overhead stops in lieu of floor mounted bumpers wherever possible.
 2. Factory prep doors and frames to receive security hardware.
- J. **Painting Hollow Metal Doors and Hollow Metal Frames.** Paint system shall be Premium Grade in accordance with the Master Painters Institute (MPI) - Architectural Painting Specification Manual. Premium Grade requires a minimum of three coats for uncoated surfaces - prime coat, intermediate coat and topcoat.

1. **Corporate Agreement. BJC HealthCare and The Sherwin-Williams Company have a corporate purchasing agreement managed by BJC Supply Chain for volume discounts, documentation, tracking and technical support. As such, all paints and coatings shall be specified as provided by The Sherwin-Williams Company, no substitutions. There are forms that must be completed by the contractor when ordering products for use in BJC HealthCare facilities. Refer to the Specification Masters, Division 00, “006000.02 Painting Program” form.**
2. Painting over existing finishes shall comply with the requirements identified in the MPI Manual and per manufacturer’s requirements. Every existing surface and coating must be evaluated for compatibility with new paint system and all metal substrates must be prepared to receive finishes.
3. Paint Finish Gloss Standard. When referring to the characteristics for gloss and sheen, these standards are developed around the MPI terminology for gloss and sheen. The following chart identifies these levels and corresponds them to the more commonly recognized and traditional terminology.

MPI GLOSS STANDARD			
Gloss Level	Description	Gloss at 60 degrees	Sheen at 85 degrees
G1	Traditional matte finish - flat	5 units, max.	10 units, max.
G2	High-side sheen flat, “velvet-like” finish	10 units, max.	10-35 units
G3	Traditional “eggshell-like” finish	10-25 units	10-35 units
G4	“Satin-like” finish	20-35 units	35 units, min.
G5	Traditional semigloss	35-70 units	-
G6	Traditional gloss	70-85 units	-
G7	High gloss	85 units, min.	-

4. Paint systems are determined based on the substrate, the need to withstand abuse/contact, and environmental considerations. The following system paint systems for ferrous metals (interior doors and frames) are identified by general locations/rooms of the building and by surface material/location.
 - a. **Typical Rooms.** Typical rooms without excessive exposure to contact, abrasion, cleaning, humidity/moisture levels, chemicals and biological contaminants. Acrylic type, MPI G5, semi-gloss finish.
 - b. **Wet Rooms.** Rooms with excessive exposure to higher humidity/moisture levels, and those that must withstand regular scrubbing and cleaning. Such rooms include bathrooms. Acrylic type, MPI G5, semi-gloss finish.
 - c. **Invasive Procedure Rooms.** Frames are stainless steel and not painted unless otherwise directed.

Table. Painting requirements for hollow metal (ferrous metal) doors and frames.

Note: "Conditionally Permitted" requires pre-approval of use by BJC Director of Design.		HOSPITAL BUILDING			AMBULATORY CARE BUILDING			MEDICAL AND ADMIN. OFFICE BUILDING		
		Typical Rooms and Areas	Wet Rooms and Areas	Invasive Procedures and Sterile Rooms	Typical Rooms and Areas	Wet Rooms and Areas	Invasive Procedures and Sterile Rooms	Typical Rooms and Areas	Wet Rooms and Areas	
Ferrous Metal Doors and Frames	Standard System	Approval status	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	
		Comments	Acrylic	Acrylic	Stainless Steel, unpainted	Acrylic	Acrylic	Stainless Steel	Acrylic	Acrylic
		MPI level	G5	G5	n/a	G5	G5	n/a	G5	G5
		Primer	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	n/a	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	n/a	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310
		Intermediate Coat	Pro Industrial Acrylic Semi-Gloss B66-650	Pro Industrial Acrylic Semi-Gloss B66-650	n/a	Pro Industrial Acrylic Semi-Gloss B66-650	Pro Industrial Acrylic Semi-Gloss B66-650	n/a	Pro Industrial Acrylic Semi-Gloss B66-650	Pro Industrial Acrylic Semi-Gloss B66-650
		Top Coat	Pro Industrial Acrylic Semi-Gloss B66-650	Pro Industrial Acrylic Semi-Gloss B66-650	n/a	Pro Industrial Acrylic Semi-Gloss B66-650	Pro Industrial Acrylic Semi-Gloss B66-650	n/a	Pro Industrial Acrylic Semi-Gloss B66-650	Pro Industrial Acrylic Semi-Gloss B66-650
	Optional system 1	Approval status	Conditionally Permitted	Conditionally Permitted	Conditionally Permitted	Conditionally Permitted	Conditionally Permitted	Conditionally Permitted	n/a	n/a
		Comments	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy	n/a	n/a
		MPI level	G5	G5	G6	G5	G5	G6	n/a	n/a
		primer	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	n/a	n/a
		intermediate coat	Pro Industrial Precatalyzed Water Based Epoxy Semi-gloss K46	Pro Industrial Precatalyzed Water Based Epoxy Semi-gloss K46	Pro Industrial Water Based Catalyzed Epoxy Gloss, B73-300	Pro Industrial Precatalyzed Water Based Epoxy Semi-gloss K46	Pro Industrial Precatalyzed Water Based Epoxy Semi-gloss K46	Pro Industrial Water Based Catalyzed Epoxy Gloss, B73-300	n/a	n/a
		top coat	Pro Industrial Precatalyzed Water Based Epoxy Semi-gloss K46	Pro Industrial Precatalyzed Water Based Epoxy Semi-gloss K46	Pro Industrial Water Based Catalyzed Epoxy Gloss, B73-300	Pro Industrial Precatalyzed Water Based Epoxy Semi-gloss K46	Pro Industrial Precatalyzed Water Based Epoxy Semi-gloss K46	Pro Industrial Water Based Catalyzed Epoxy Gloss, B73-300	n/a	n/a
	Optional system 2	Approval status	Conditionally Permitted	Conditionally Permitted	Conditionally Permitted	Conditionally Permitted	Conditionally Permitted	Conditionally Permitted	n/a	n/a
		Comments	Epoxy, High Performance	Epoxy	Epoxy	Epoxy, High Performance	Epoxy	Epoxy	n/a	n/a
		MPI level	G5	G3	G3	G5	G3	G3	n/a	n/a
		primer	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310	n/a	n/a
		Intermediate coat	Pro Industrial Water Based Catalyzed Epoxy Semi-gloss, B73-360	Pro Industrial Water Based Catalyzed Epoxy Eg-Shel, B73-360	Pro Industrial Water Based Catalyzed Epoxy Eg-Shel, B73-360	Pro Industrial Water Based Catalyzed Epoxy Semi-gloss, B73-360	Pro Industrial Water Based Catalyzed Epoxy Eg-Shel, B73-360	Pro Industrial Water Based Catalyzed Epoxy Eg-Shel, B73-360	n/a	n/a
		top coat	Pro Industrial Water Based Catalyzed Epoxy Semi-gloss, B73-360	Pro Industrial Water Based Catalyzed Epoxy Eg-Shel, B73-360	Pro Industrial Water Based Catalyzed Epoxy Eg-Shel, B73-360	Pro Industrial Water Based Catalyzed Epoxy Semi-gloss, B73-360	Pro Industrial Water Based Catalyzed Epoxy Eg-Shel, B73-360	Pro Industrial Water Based Catalyzed Epoxy Eg-Shel, B73-360	n/a	n/a

2.02 BUILDING SUPPORT AREAS

- A. Building support/utility rooms. Door openings installed as part of the public areas for hospital buildings which are not accessed by patients and visitors (Mechanical Rooms, Electrical Closets, IS Closets, etc.) shall comply with the following requirements.
 - 1. Door frames shall be painted hollow metal, face welded or full profile welded. Design intent is for the door and frame color to be the same color as used on the wall with the opening so the doors and frames blend in with the walls. However, when walls are white, paint doors and frames light gray to minimize cleaning.
 - 2. Doors shall be painted hollow metal. Design intent is for the door and frame color to be the same color as used on the wall with the opening so the doors and frames blend in with the walls. However, when walls are white, paint doors and frames light gray to minimize cleaning. Wood core and plastic laminate veneer doors are conditionally permitted.
- B. Other public rooms. Door openings installed as part of the Public for hospital buildings that may be accessed by patients/visitors (public restroom doors, stair doors, corridor doors to occupied tenant spaces) shall comply with the following requirements.
 - 1. Door frames shall be painted hollow metal, face welded or full profile welded.
 - 2. Doors shall be flush-type, solid core wood doors with plastic laminate veneer facings.

2.03 HOSPITAL DEPARTMENTS/UNITS

- A. Rooms within a hospital unit/department area. Door openings installed as part a tenant fit-out shall comply with the following requirements. Refer to Room Data Sheets.
 - 1. Frames shall be full profile weld, painted hollow metal type.
 - 2. Doors shall be flush-type, solid core wood doors with plastic laminate veneer. Wood faced, wood core doors are conditionally permitted.

PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

3.01 GENERAL

- A. In addition to incorporating all applicable life safety and building code requirements, provisions described within this Element shall be included within the Project Contract Documents.
- B. Identify door and frame assembly performance requirements (Heavy Duty, Extra Heavy Duty) in the door schedule.

- C. Identify frame types (Knock-down, face welded, full profile welded) in the door schedule.
- D. Identify door edge construction types (Model 1 Full Flush, Model 2 Seamless) in the door schedule.

PART 4 - PRODUCTS

4.01 GENERAL

- A. Not Applicable.

End of C1020 – Interior Doors

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ELEMENT C1030 – ACCESSORIES/FITTINGS

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PART 1 - GENERAL**1.01 OVERVIEW**

- A. Includes marker and tack boards, identifying devices, lockers, toilet and bath accessories, handrails, window treatments, etc.
- B. Includes requirements for both public and hospital department/unit areas for hospital buildings.

PART 2 - DESIGN CRITERIA**2.01 GENERAL**

- A. While most accessories are provided and installed by the Contractor, some accessories/fittings are provided by the Owner for Contractor installation. The design professional shall review the complete list of accessories/fittings with the BJC Design Project Manager and BJC Clinical Asset Management. Provide cut sheets during the Design Development phase for review and approval.
- B. Unless otherwise directed, do not provide toilet seat cover fixtures, feminine hygiene dispensers, or condom dispensers.
- C. Preferred method of drying hands is by paper towel. Forced air hand dryers are conditionally permitted in public restrooms but are not permitted in any other locations.
- D. Verify fixture location does not interfere with door swings or use of fixtures.
- E. Comply with manufacturer's recommendations for backing and proper support.
- F. Use fasteners and anchors suitable for substrate and project conditions.
- G. Install items rigid, straight, plumb, and level, in accordance with manufacturer's installation instructions and approved shop drawings.
- H. Conceal evidence of drilling, cutting, and fitting to room finish.

2.02 PUBLIC AREAS

- A. Accessories. BJC Clinical Asset Management (CAM) procures certain consumable supplies (hand soap, paper towels, toilet paper) for accessories/fittings. As such, the fixture is often provided by the supplier. Design professional must carefully consider

the size of the fixtures, clearances, mounting requirements, etc. when designing spaces.

1. Grab Bars. Located in public rest rooms (Men's, Women's, and Unisex Rest Rooms) as required by ADA.
 - a. Furnished: Contractor.
 - b. Installed: Contractor.
 - c. Mounting: Wall mounted at 34" above finished floor to centerline of grab bar or in accordance with applicable codes and regulations. Concealed fasteners required. Provide blocking in wall to support 800lb static load and 1,000lb dynamic load.
 - d. Material: Brushed stainless steel with peened grip surface.
 - e. Notes: Where patient population includes those with GI, orthopedic conditions, or surgical recovery, consider installing a supplemental grab bar on the toilet side wall.

2. Toilet Paper Dispenser, Jumbo Roll. Located in public rest rooms (Men's, Women's, and Unisex Rest Rooms). Locate immediately adjacent to toilets. For a rest room with one sink, provide one paper towel dispenser. For restrooms with 2 to 3 sinks, provide 2 paper towel dispensers. For rest rooms with 4 or more sinks, coordinate number of paper towel dispensers with BJC Design Project Manager.
 - a. Furnished: Owner, verify.
 - b. Installed: Contractor.
 - c. Mounting: Surface mounted, at a height in accordance with applicable codes and regulations. Provide blocking in wall as necessary. Coordinate exact location with grab bars and other fixtures.
 - d. Material: Brushed stainless steel or as provided by supplier.
 - e. Notes: Avoid locating paper towel dispensers where excessive water may drip on to floor.

3. Mirrors, Framed. Located in single-use public rest rooms (Men's, Women's, and Unisex Rest Rooms).
 - a. Furnished: Contractor.
 - b. Installed: Contractor.
 - c. Mounting: Wall mounted at a height in accordance with applicable codes and regulations. Provide blocking in wall as required. Provide theft resistant mounting.
 - d. Material: Brushed stainless steel, channel-framed, 1/4" thick tempered glass with neoprene gasket between glass and frame.
 - e. Notes: Consider location, frequency of use and patient populations when determining materials and mounting requirements.

4. Mirrors, Frameless. Located in multi-use (more than one toilet fixture) public rest rooms (Men's, Women's, and Unisex Rest Rooms). Installed along back wall at sinks for entire length. When more than one mirror is required to fill length of wall, meeting edge of mirror units shall not be on center with sinks.

- a. Furnished: Contractor.
 - b. Installed: Contractor.
 - c. Mounting: Wall mounted at a height in accordance with applicable codes and regulations. Provide blocking in wall as required. Provide top and bottom clip mounting.
 - d. Material: ¼” thick tempered glass.
 - e. Notes: Consider location, frequency of use and patient populations when determining materials and mounting requirements.
5. Coat Hooks. Located in public rest rooms (Men’s, Women’s, and Unisex Rest Rooms). Installed at back side of room entry door for single-use rest rooms or installed on toilet partition door, stall-side, for multi-use rest rooms.
- a. Furnished: Contractor.
 - b. Installed: Contractor.
 - c. Mounting: Wall mounted at a height in accordance with applicable codes and regulations. Provide blocking in wall as required.
 - d. Material: Brushed stainless steel.
 - e. Notes: Consider location and patient population that may require the use of anti-ligature type hooks.
6. Soap Dispensers. Located in public rest rooms (Men’s, Women’s, and Unisex Rest Rooms). Installed at adjacent to the sink. Provide one soap dispenser per sink. For rest rooms with 3 or more sinks, coordinate number of soap dispensers with BJC Design Project Manager.
- a. Furnished: Owner, verify.
 - b. Installed: Contractor.
 - c. Mounting: Surface, wall mounted at a height in accordance with applicable codes and regulations. Provide blocking in wall as required.
 - d. Material: Brushed stainless steel or as provided by supplier.
 - e. Notes: Avoid locating soap dispensers where soap may drip on to floor.
7. Paper Towel Dispenser, Roll Towel, Battery Operated Motion Sensor. Located in public rest rooms (Men’s, Women’s, and Unisex Rest Rooms). Locate immediately adjacent to sinks. For a rest room with one sink, provide one paper towel dispenser. For restrooms with 2 to 3 sinks, provide 2 paper towel dispensers. For rest rooms with 4 or more sinks, coordinate number of paper towel dispensers with BJC Design Project Manager.
- a. Furnished: Owner, verify.
 - b. Installed: Contractor.
 - c. Mounting: Surface mounted or semi recessed, at a height in accordance with applicable codes and regulations. Provide blocking in wall. Surface mounted units shall not project more than 4” from the wall surface.
 - d. Material: Brushed stainless steel or as provided by supplier.
 - e. Notes: Avoid locating paper towel dispensers where excessive water may drip on to floor.

8. Forced Warm Air Hand Dryers. Conditionally permitted for use in public rest rooms only (Men's, Women's, and Unisex Rest Rooms) in lieu of paper towel dispensers. Approval for use by BJC Design Project Manager is required. When approved for use, locate unit adjacent to sinks. For a rest room with one sink, provide one forced warm air hand dryer. For restrooms with 2 to 3 sinks, provide 2 forced warm air hand dryer. For rest rooms with 4 or more sinks, coordinate number of forced warm air hand dryers with BJC Design Project Manager.
 - a. Furnished: Contractor.
 - b. Installed: Contractor.
 - c. Mounting: Surface mounted, at a height in accordance with applicable codes and regulations. Provide blocking in wall. Surface mounted units shall not project more than 4" from the wall surface. Coordinate electrical requirements.
 - d. Material: Brushed stainless steel or as provided by supplier.
 - e. Notes: Avoid locating forced warm air hand dryers where excessive water may drip on to floor. Coordinate with electrical requirements.

9. Baby Changing Station. Located in public rest rooms (Men's, Women's, and Unisex Rest Rooms). See notes for location considerations. Provide one baby changing station for every public restroom.
 - a. Furnished: Contractor.
 - b. Installed: Contractor.
 - c. Mounting: Surface mounted or semi recessed, at a height in accordance with applicable codes and regulations. Provide blocking in wall. Surface mounted units shall not project more than 4" from the wall surface in the closed position.
 - d. Material: 18 gauge minimum brushed stainless steel outer shell and polypropylene inner bed liner.
 - e. Notes: Unit must be equipped with restraint straps. Unit is not required to have a sanitary bed liner dispenser. Avoid locating baby changing stations in traffic areas, near doors, or directly adjacent to toilets and urinals.

10. Mop Holder. Located in Housekeeping Closet. Provide one mop holder for every Housekeeping Closet.
 - a. Furnished: Contractor.
 - b. Installed: Contractor.
 - c. Mounting: Surface mounted. Provide blocking in wall as required.
 - d. Material: Brushed stainless steel.
 - e. Notes: Locate above mop sink.

B. Signage.

1. Interior public signage is typically furnished and installed by BJC Sign Services. Design professionals shall coordinate installation requirements and provide blocking as necessary for mounting with BJC Sign Services.

2. Room identification signs are typically located on the wall along the latch side of a door opening. Consider sign locations when locating items including but not limited to hand sanitizer dispensers, PPE cabinets, sharps containers, switches and outlets, door operators, wall protection, handrails, etc.
3. Directory. Building directories are located near the main building entrance and near the elevator lobby. Directory design, content, location, and type to be coordinated with BJC Director of Design and BJC Design Project Manager.

C. Window Treatments

1. Manually operated roller shades shall be furnished and installed by Owner for all windows unless otherwise directed. Design professional shall coordinate mounting requirements and provide treated wood blocking at head of window as necessary.

D. Wall Protection

1. Refer to Room Data Sheets for sheet wall protection, crash rails, handrails and corner guards in public areas.

2.03 HOSPITAL DEPARTMENT/UNIT

- A. Accessories. Accessories/fittings in tenant lease spaces of a hospital building vary based on a variety of factors including the function of the department, re-use of existing accessories, and other factors. BJC Clinical Asset Management provides support for these areas. As such, the design professional should consider the accessory/fitting requirements for each project and coordinate with the BJC Design Project Manager. Provide product cut sheets as needed and as requested.
- B. Signage. BJC Sign Services provides signage for hospital areas. Design professional should coordinate project requirements with BJC Project Manager.
- C. Window Treatments. Window treatments are part of the building public and intended to be the same for the entire building.
- D. Wall Protection Sheet wall protection and corner guards in hospital departments/units are determined based on project requirements and based on the room function. Coordinate with BJC Design Project Manager and Room Data Sheets.

PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

3.01 GENERAL

- A. In addition to incorporating all applicable life safety and building code requirements, provisions described within this Element shall be included within the Project Contract Documents.
- B. Coordinate types and locations of accessories/fittings with Owner.

- C. Coordinate and indicate support and blocking requirements in contract documents as necessary for specific mounting requirements.
 - 1. Show initial elevations of block requirements on plans.
- D. Show and call out line of privacy curtains and track on all plans. (Floor and Ceiling).
 - 1. Indicate line as dashed on floor plans for coordination with equipment, furniture, fixtures, casework, etc. Tracks and the trolleys are furnished and installed by the Contractor and cubicle curtains are furnished and installed by the Owner.
- E. All fittings described herein shall be shown in the drawings.
 - 1. All items that are Owner furnished and Owner installed shall be shown as dashed lines and noted accordingly.
 - 2. All items that are Owner furnished and Contractor installed shall be shown as solid lines and noted accordingly.
 - 3. All items that are Contractor furnished and installed shall be shown as solid lines and noted accordingly.
 - 4. Provide an Accessories/Fittings Schedule in the drawings.

PART 4 - PRODUCTS

4.01 GENERAL

- A. Not Applicable.

End of C1030 – Accessories/Fittings

ELEMENT C1031 – FABRICATED TOILET PARTITIONS

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PART 1 - GENERAL**1.01 OVERVIEW**

- A. Includes fabricated toilet partitions and urinal screens for hospital buildings.
- B. Coordinate finishes with BJC Design Manager. Provide samples for selection and samples for verification unless otherwise directed.
- C. Includes requirements for both public and clinical areas for hospital buildings.

PART 2 - DESIGN CRITERIA**2.01 GENERAL**

- A. Typical toilet partitions shall be ceiling hung.
- B. Typical urinal screens shall wall mounted.

2.02 PUBLIC

- A. Use only steel, phenolic core and solid polymer type panels based on project specific requirements and coordinate with entity specific standards. Plastic laminate-faced particle board cores not permitted.
- B. Hardware
 - 1. Provide stainless steel type hardware.
 - 2. Provide manufacturer's standard paired, self-closing type hinges that can be adjusted to hold doors open at any angle up to 90 degrees.
 - 3. Provide manufacturer's standard recessed latch unit designed for emergency access and with combination rubber-faced door strike and keeper. Provide units that comply with regulatory requirements for accessibility at compartments designated as accessible.
 - 4. Provide manufacturer's standard combination hook and rubber-tipped bumper, sized to prevent in-swinging door from hitting compartment-mounted accessories.
 - 5. Provide manufacturer's standard rubber-tipped door bumper at out-swinging doors.
 - 6. Provide manufacturer's standard door pull unit at out-swinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at compartments designated as accessible.
 - 7. For ceiling hung partitions, provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment nuts at pilasters for connection to

structural support above finished ceiling. Provide assemblies that support pilasters from structure without transmitting load to finished ceiling. Provide sleeves (caps) at tops of pilasters to conceal anchorage.

2.03 HOSPITAL DEPARTMENT/UNIT

- A. Toilet partitions in unit/department areas of a hospital building is determined by the tenant. Coordinate with BJC Design Project Manager.

PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

3.01 GENERAL

- A. In addition to incorporating all applicable life safety and building code requirements, provisions described within this Element shall be included within the Project Contract Documents.
- B. Coordinate types of products and mounting locations with Owner.
- C. Coordinate and indicate blocking requirements in contract documents as necessary for specific mounting requirements.

PART 4 - PRODUCTS

4.01 GENERAL

- A. Not Applicable.

End of C1031 – Fabricated Toilet Partitions

ELEMENT C1038 – CASEWORK

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PART 1 - GENERAL**1.01 OVERVIEW**

- A. This standard addresses typical fabricated custom plastic laminate casework and does not include laboratory grade, stainless steel, or other types of specialty casework.
- B. This guideline addresses typical countertops including plastic laminate and solid surface types.
- C. This guideline does not include specialty countertops such as solid phenolic, stone, manufactured stone, stainless steel, or other specialty type countertops.
- D. Includes requirements for both public and tenant fit-out (lease space) for hospital buildings.
- E. Fabrication and installation shall comply with the most current edition of the Architectural Woodwork Standards (AWS).

1.02 REFERENCES

- A. Refer to “*102.114 Casework Design Guideline*” for descriptions, definitions and explanations of the terms associated with the standards.
- B. Refer to “*102 114.01 Casework Grade – Images*” for graphic depictions of materials for Premium and Custom Grade.
- C. 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.
- D. Refer to Ergonomic Guideline in Chapter 1 for requirements regarding heights of counters, reach range, wall cabinet heights, etc.

PART 2 - DESIGN CRITERIA**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.
 - 1. Premium Grade is permitted and required in most instances for hospital buildings including both the public and clinical areas.

2. Custom Grade is conditionally permitted in public areas only and approval for use by BJC Director of Design and BJC Corporate Architect is required. Consider only in instances where casework durability is not a concern.

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				AMBUKLATORY 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 (Public)	Building Support Areas (Public)	Diagnostic and Treatment Areas (Tenant Lease 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	CP	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 approved by BJC Director of Design.**
- C. Agrifiber is not permitted.
- D. 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.
- E. 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 unit sits shall be the same as the counter material and 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.
- F. Quality Control, Quality Assurance and Certification Requirements.
1. Fabrication and installation shall comply with the most current edition of the North American Architectural Woodwork Standards (NAAWS).
 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 of providing casework for hospitals and other clinical environments.
 5. Architect and Owner will inspect the Work and determine whether it is in compliance with the grade
- G. Design team to coordinate finishes with entity specific standards. Provide samples for selection and samples for verification unless otherwise directed.
- H. At all locations where casework (cabinets, counters, back and side splashes) abuts wall surfaces or other construction, provide sealant at intersecting materials.
- I. There shall be no visible exposed wood surfaces, including semi-exposed and concealed locations. This includes cleats, counter supports, and blocking outside the wall cavity.**
- J. Unless otherwise directed, cabinets shall be constructed as frameless, flush overlay type.
- K. In hospital buildings, the exposed top surfaces of all wall cabinets or tall cabinets (wardrobe-type units) are required to return to the wall as a sloped top or are required to be closed off so as not to create a dust shelf. The approaches to achieve this are identified below. Consider matching existing conditions when projects include areas with existing casework to remain. Otherwise, coordinate the method with BJC Design Project Manager and BJC Corporate Architect and is indicated below.
1. Sloped-Top Plastic Laminate Panel. Consider this method in instances where the top of cabinet is greater than 18” from a ceiling/soffit surface. Provide no less than 30 degree slope from wall towards front of cabinet. Fabricate sloped-top section with cabinet body to reduce the number of laminate seams and provide a minimum 3/4” vertical leg on the outer face before starting slope.
 2. Vertical Plastic Laminate Panel. Consider this method in instances where the top of cabinet is 18” or less from a ceiling/soffit surface and where a gypsum board soffit is not preferred. This Provide vertical plastic laminate panels from top of cabinet body to underside of finished ceiling. Unless otherwise directed, laminate panel to match cabinet.

- 3. Gypsum Board Soffit. Consider this method in instances where the top of cabinet is 18” or less from a ceiling/soffit surface and where a vertical laminate panel is not preferred. Soffits may be constructed extending from the ceiling to the top of the cabinet when the vertical soffit dimension is no greater than 1’-6”.

- L. Wall cabinet valance at under-cabinet lighting. Where under-cabinet lighting occurs, wall cabinets shall have a valance to shield the lighting from view. Minimum length of valance shall be 1-1/2”.
- M. Architect to submit plastic laminate interior material control samples for each color, pattern, and surface finish to owner for review.

2.02 BUILDING SUPPORT

A. Permitted Casework Grade.

- 1. Premium Grade is required in hospital buildings for building support areas. In some instances, casework requirements for BJC are greater than what is permitted by grade. When occurs, these enhanced requirements are identified.
- 2. Custom Grade is conditionally permitted in some instances. BJC Director of Design approval is required.
- 3. These standards identify the requirements for both Premium and Custom Grades.

B. These standards describe detail requirements for cabinet core materials, face materials and edge materials. These standards also identify cabinet hardware requirements and requirements for countertops.

C. Cabinet Materials – Building Support. The minimum requirements for surfaces of casework are indicated below. Design professional should consider project conditions and specify materials of higher quality when necessary that support the specific use and intended function. Refer to 102.114 Casework Design Guideline for description of surface types.

1. Exposed Surfaces.

- a. Core. 19mm (3/4”) medium density particle board or medium density fiber board core for panels up to 30”w x 80”h, Custom and Premium Grade. For larger panels, casework fabrication shall designed, engineered and fabricated to prevent warping, racking, delamination, and telegraphing.
- b. Face. High-Pressure Decorative Laminate (HPDL), thickness as indicated in following table. Thermoset decorative overlay (melamine) is not permitted, Custom and Premium Grade.

Table. Min. thickness in mm of HPDL for exposed surfaces of casework.by referenced grade.

Light blue shaded cells represent requirements that vary from the minimum requirements for premium grade		HOSPITAL BUILDING				AMBULATORY 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 (Public)	Diagnostic and Treatment Areas (Tenant Lease areas)	Building Support Areas (Public)	Primary Public and Entry spaces	All other remaining areas
Horizontal, non-counter surface	Premium Grade	1.2	1.2	1.2	0.7	1.2	1.2	0.7	0.7	0.7	0.7	0.7
	Custom Grade (conditionally permitted only)	NP	NP	NP	0.7	NP	NP	0.7	0.7	0.7	0.7	0.7
Vertical surface	Premium Grade	1.2	1.2	1.2	0.7	1.2	1.2	0.7	0.7	0.7	0.7	0.7
	Custom Grade (conditionally permitted only)	NP	NP	NP	0.7	NP	NP	0.7	0.7	0.7	0.7	0.7

- c. Cabinet body edges: 0.5mm PVC color matched edgeband, Custom and Premium Grade.
 - d. Exposed shelf edges (shelves that are not within a cabinet and behind cabinet doors):
 - 1) Custom Grade (conditionally permitted): 0.5mm PVC color matched edgeband.
 - 2) Premium Grade: 3.0mm PVC color matched edgeband.
 - e. Door edges:
 - 1) Custom Grade (conditionally permitted): 0.5mm PVC color matched edgeband.
 - 2) Premium Grade: 3.0mm PVC color matched edgeband.
 - f. Drawer edges:
 - 1) Custom Grade (conditionally permitted): 0.5mm PVC color matched edgeband.
 - 2) Premium Grade: 3.0mm PVC color matched edgeband.
- 2. Semi-Exposed Surfaces.**
- a. Core - all surfaces other than drawer sides, backs and bottoms: 19mm (3/4”) medium density particle board or medium density fiber board core for panels up to 30”w x 80”h, Custom and Premium Grade.
 - b. Core - drawer sides and backs: 12.7mm (1/2”) medium density particle board core, Custom and Premium Grade.
 - c. Core – drawer bottoms: 12.7mm (1/2”) hardwood, Custom and Premium Grade.

- d. Faces for all surfaces other than drawer sides, backs and bottoms:
 - 1) Custom Grade (conditionally permitted): Thermoset decorative overlay (melamine).
 - 2) Premium Grade: 3.0mm PVC color matched edgeband.
- e. Faces for drawer sides, backs and bottoms: Thermoset decorative overlay (melamine), Custom and Premium Grade.
- f. Internal door face (not exposed to view when door is closed): High-Pressure Decorative Laminate (HPDL), thickness must be the same thickness as the exposed face, Custom and Premium Grade.
- g. Semi-exposed shelf edges (shelves located within a cabinet and behind cabinet doors): 0.5mm PVC color matched edgeband, Custom and Premium Grade.

3. Concealed Surfaces.

- a. Core. 19mm (3/4") medium density particle board core for panels up to 30"w x 80"h, Custom and Premium Grade.
- b. Faces for drawer sides, backs and bottoms. Thermoset decorative overlay (melamine) or 0.5mm cabinet liner, Custom and Premium Grade.

D. Cabinet Hardware – Building Support

1. General

- a. The following requirements apply to Custom and Premium Grade, unless noted otherwise.
- b. Provide cabinet hardware and accessory materials associated with architectural cabinets. Coordinate cabinet hardware requirements, locking, pulls, etc. with project requirements and entity specific standards.
- c. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA 630f, satin stainless steel. Coordinate with entity specific standards.
- d. Pulls. In most instances, pulls are to be back mounted, solid metal, wire type. Coordinate with project specific requirements and entity requirements for specific exceptions

2. Door Hardware.

- a. Hinges. Provide frameless concealed hinges (European Type) in accordance with BHMA A156.9, B01602, self-closing type.
- b. Catches are not required for typical installations unless specific design conditions require otherwise.
- c. Door Locks. In accordance with BHMA A156.11, E07121.

3. Drawer Hardware. The following requirements apply to Custom and Premium Grade.

- a. Drawer slide. Drawer slides shall be in accordance with BHMA A156.9. Grade 1 (50lbf) and Grade 2 (30lbf) are side mounted, extend under bottom edge of drawer, full-extension, zinc-plated steel with polymer rollers. Grade 1HD-100 (100lbf) and Grade 1HD-200 (200 lbf) are heavy duty type, side mounted, full-extension, zinc-plated-steel ball-bearing slides. The following conditions are considered to be minimum requirements for the applications identified. A higher grade may be required based on intended use.
 - 1) For drawers less than 3 inches (75 mm) high and not more than 24 inches (600 mm) wide, provide Grade 2.
 - 2) For drawers at least 3 inches (75 mm) high and not more than 6 inches (150 mm) high and not more than 24 inches (600 mm) wide, provide Grade 1.
 - 3) For drawers more than 6 inches (150 mm) high or more than 24 inches (600 mm) wide, provide Grade 1HD-100.
 - 4) For computer keyboard shelves, provide Grade 1HD-100.
 - 5) For trash bins not more than 20 inches (500 mm) high and 16 inches (400 mm) wide, provide Grade 1HD-200.
 - b. Drawer Locks. In accordance with BHMA A156.11, E07041.
 - c. Door and Drawer Silencers. In accordance with BHMA A156.16, L03011.
4. Adjustable Cabinet Shelf Supports. Adjustable shelf supports within cabinets are determined by the casework grade and are as follows:
- a. Custom Grade (conditionally permitted): 5mm diameter drilled holes 3” max. on center vertically with dual pin support.
 - b. Premium Grade: Recessed metal standards and brackets, standards to be flush to cabinet face.

E. Countertops – Building Support

1. General.
 - a. Typical counters in hospital buildings shall be High-Pressure Decorative Laminate (HPDL).
 - b. Provide solid polymer surface type countertops at all wet locations, counters with sinks, and in areas subject to moderate/heavy use (transaction counters). Refer to Room Data Sheets for countertops by room.
 - c. Unless otherwise directed, 4” high backsplashes and side splashes of same material as counter shall be provided when abutting vertical walls. This includes 4” high splashes for solid surface conditions.
 - d. Countertops shall overhang the outermost face of the base cabinet below by 1”.
 - e. Countertop exposed edge shall be 1-1/2” thick, unless otherwise directed.
2. Plastic Laminate Countertops and Back/Side Splashes.

- a. Core material (for dry locations only): Particleboard made with exterior glue or medium-density fiberboard made with exterior glue, Custom and Premium Grades.
 - b. Face material: High-Pressure Decorative Laminate (HPDL), thickness by grade as follows.
 - 1) Custom Grade (conditionally permitted): Grade HGL, 1.0mm nominal thickness.
 - 2) Premium Grade: Grade HGS, 1.2mm nominal thickness.
 - c. Counter front edge profile. Custom and Premium Grades.
 - 1) Self-edge with wide build up is permitted.
 - 2) Waterfall and no-drip details are conditionally permitted but not typical and requires approval from BJC Director of Design for use. When approved, HPDL shall be HGP, 1.0mm, Postform type.
 - d. Counter front edge material, typical counter condition. (Exposed hardwood edges are not permitted).
 - 1) Custom Grade (conditionally permitted): 0.5mm PVC color-matched edge banding or High pressure decorative laminate (HPDL) adhered counter edges of same thickness as counter.
 - 2) Premium Grade: 3.0mm PVC color-matched edge banding.
 - e. Counter front edge material, where counters are used as a desk surface for computer/keyboard activities. (Exposed hardwood edges are not permitted).
 - 1) Custom Grade (conditionally permitted): 3.0mm PVC color-matched edge banding.
 - 2) Premium Grade: PVC T-molding, wedge shaped
 - f. Back splash and side splash detailing shall be as follows. Splashes are required unless otherwise approved by BJC Design Project Manager, Custom and Premium Grade.
 - 1) Self-edged with horizontal butt splash (where splash sits atop the counter surface).
 - 2) Self-edged with coved splash is conditionally permitted but not typical and requires approval from BJC Director of Design for use. When approved, HPDL shall be HGP, Postform type.
3. Solid surface countertops. The following requirements apply to Custom and Premium Grades.
 - a. Thickness: 19mm (3/4") thick, minimum.
 - b. Substrate/Subtops: Full substrate/subtop coverage is not permitted unless required by solid surface manufacturer. Coordinate perimeter strip and

- strip spacing with manufacturer. Coordinate supporting elements for unsupported counter spans with manufacturer.
- c. Back splash and side splash detailing shall be square-edged, eased.
- d. Counter front edge profile shall be eased edge.

2.03 HOSPITAL DEPARTMENTS/UNITS

- A. Premium Grade is required in hospital buildings. Custom Grade is not permitted. The following standards identify acceptable requirements based on Premium Grade only.
- B. Cabinet Materials – Hospital Departments/Units. The minimum requirements for surfaces of casework are indicated below. Design professional should consider project conditions and specify materials of higher quality when necessary that support the specific use and intended function. Refer to the 102.114 Casework Design Guideline for description of surface types.

1. Exposed Surfaces.

- a. Core. 19mm (3/4”) medium density particle board or medium density fiber board core for panels up to 30”w x 80”h. For larger panels, casework fabrication shall be designed, engineered and fabricated to prevent warping, racking, delamination, and telegraphing.
- b. Face. High-Pressure Decorative Laminate (HPDL), thickness as indicated in following table. Thermoset decorative overlay (melamine) is not permitted.

Table. Min. thickness in mm of HPDL for exposed surfaces of casework by referenced grade.

Light blue shaded cells represent requirements that vary from the minimum requirements for premium grade		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 (Public)	Diagnostic and Treatment Areas (Tenant Lease areas)	Building Support Areas (Public)	Primary Public and Entry spaces	All other remaining areas
Horizontal, non-counter surface	Premium Grade	1.2	1.2	1.2	0.7	1.2	1.2	0.7	0.7	0.7	0.7	0.7
	Custom Grade (conditionally permitted only)	NP	NP	NP	0.7	NP	NP	0.7	0.7	0.7	0.7	0.7
Vertical surface	Premium Grade	1.2	1.2	1.2	0.7	1.2	1.2	0.7	0.7	0.7	0.7	0.7
	Custom Grade (conditionally permitted only)	NP	NP	NP	0.7	NP	NP	0.7	0.7	0.7	0.7	0.7

- c. Cabinet body edges: 0.5mm PVC color matched edgeband.
- d. Exposed shelf edges: 3.0mm PVC color matched edgeband.
- e. Door edges: 3.0mm PVC color matched edgeband.
- f. Drawer edges: 3.0mm PVC color matched edgeband.

2. Semi-Exposed Surfaces.

- a. Core - all surfaces other than drawer sides, backs and bottoms: 19mm (3/4") medium density particle board or medium density fiber board core for panels up to 30"w x 80"h.
- b. Core - drawer sides and backs: 12.7mm (1/2") medium density particle board core.
- c. Core – drawer bottoms: 12.7mm (1/2") hardwood.
- d. Faces for all surfaces other than drawer sides, backs and bottoms: 3.0mm PVC color matched edgeband.
- e. Faces for drawer sides, backs and bottoms: Thermoset decorative overlay (melamine).
- f. Internal door face (not exposed to view when door is closed): High-Pressure Decorative Laminate (HPDL), thickness must be the same thickness as the exposed face.
- g. Semi-exposed shelf edges: 0.5mm PVC color matched edgeband.

3. Concealed Surfaces.

- a. Core. 19mm (3/4") medium density particle board core for panels up to 30"w x 80"h.
- b. Faces for drawer sides, backs and bottoms. Thermoset decorative overlay (melamine) or 0.5mm cabinet liner.

C. Cabinet Hardware – Hospital Departments/Units

1. General

- a. Provide cabinet hardware and accessory materials associated with architectural cabinets. Coordinate cabinet hardware requirements, locking, pulls, etc. with project requirements.
- b. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA 630f, satin stainless steel. Coordinate with entity specific standards.
- c. Pulls. Back mounted, solid metal, wire type unless otherwise directed.

2. Door Hardware.

- a. Hinges. Provide frameless concealed hinges (European Type) in accordance with BHMA A156.9, B01602, self-closing type.
- b. Catches are not required for typical installations unless specific design conditions require otherwise.
- c. Door Locks. In accordance with BHMA A156.11, E07121.

3. Drawer Hardware.

- a. Drawer slide. Drawer slides shall be in accordance with BHMA A156.9. Grade 1 (50lbf) and Grade 2 (30lbf) are side mounted, extend under bottom edge of drawer, full-extension, zinc-plated steel with polymer rollers. Grade 1HD-100 (100lbf) and Grade 1HD-200 (200 lbf) are heavy duty type, side mounted, full-extension, zinc-plated-steel ball-bearing slides. The following conditions are considered to be minimum requirements for the applications identified. A higher grade may be required based on intended use.
 - 1) For drawers less than 3 inches (75 mm) high and not more than 24 inches (600 mm) wide, provide Grade 2.
 - 2) For drawers at least 3 inches (75 mm) high and not more than 6 inches (150 mm) high and not more than 24 inches (600 mm) wide, provide Grade 1.
 - 3) For drawers more than 6 inches (150 mm) high or more than 24 inches (600 mm) wide, provide Grade 1HD-100.
 - 4) For computer keyboard shelves, provide Grade 1HD-100.
 - 5) For trash bins not more than 20 inches (500 mm) high and 16 inches (400 mm) wide, provide Grade 1HD-200.
- b. Drawer Locks. In accordance with BHMA A156.11, E07041.
- c. Door and Drawer Silencers. In accordance with BHMA A156.16, L03011.

4. Adjustable Cabinet Shelf Supports. Adjustable shelf supports within cabinets: Recessed metal standards and brackets, standards to be flush to cabinet face. Drilled holes not permitted.

D. Countertops – Hospital Departments/Units

1. General.

- a. Typical counters in hospital buildings shall be High-Pressure Decorative Laminate (HPDL).
- b. Provide solid polymer surface type countertops at all wet locations, counters with sinks, and in areas subject to moderate/heavy use (transaction counters). Refer to Room Data Sheets for countertops by room.
- c. Unless otherwise directed, 4” high backsplashes and side splashes of same material as counter shall be provided when abutting vertical walls. This includes 4” high splashes for solid surface conditions.
- d. Countertops shall overhang the outermost face of the base cabinet below by 1”.
- e. Countertop exposed edge shall be 1-1/2” thick, unless otherwise directed.

2. Plastic Laminate Countertops and Back/Side Splashes.

- a. Core material (for dry locations only): Particleboard made with exterior glue or medium-density fiberboard made with exterior glue.
 - b. Face material: High-Pressure Decorative Laminate (HPDL), Grade HGS, 1.2mm nominal thickness.
 - c. Counter front edge profile.
 - 1) Self-edge with wide build up is permitted.
 - 2) Waterfall and no-drip details are conditionally permitted but not typical and requires approval from BJC Director of Design for use. When approved, HPDL shall be HGP, Postform type.
 - d. Counter front edge material, typical counter condition (exposed hardwood edges are not permitted): 3.0mm PVC color-matched edge banding.
 - e. Counter front edge material, where counters are used as a desk surface for computer/keyboard activities (exposed hardwood edges are not permitted): PVC T-molding, wedge shaped.
 - f. Back splash and side splash detailing shall be as follows. Splashes are required unless otherwise approved by BJC Design Project Manager.
 - 1) Self-edged with horizontal butt splash (where splash sits atop the counter surface).
 - 2) Self-edged with coved splash is conditionally permitted but not typical and requires approval from BJC Director of Design for use. When approved, HPDL shall be HGP, Postform type.
3. Solid surface countertops.
- a. Thickness: 19mm (3/4") thick, minimum.
 - b. Substrate/Subtops: Full substrate/subtop coverage is not permitted unless required by solid surface manufacturer. Coordinate perimeter strip and strip spacing with manufacturer. Coordinate supporting elements for unsupported counter spans with manufacturer.
 - c. Back splash and side splash detailing shall be square-edged, eased.
 - d. Counter front edge profile shall be eased edge.

PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

3.01 GENERAL

- A. Coordinate types of products and mounting locations with Owner. Indicate blocking requirements in contract documents for specific mounting requirements and as necessary.
- B. Design team to coordinate and verify all equipment locations with CAM including all utility requirements.
- C. **Contractor shall not deliver or install cabinets until building is enclosed, wet work is complete, and HVAC system is operating and maintaining**

temperature and relative humidity at occupancy levels during the remainder of the construction period.

- D. All shop drawings must be submitted to Architect and Owner for review. Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, seams, grommets, supports, and other components.
- E. Indicate type of cabinet and type of countertop on the drawings.
- F. 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.
- G. Indicate sealant joints of cabinets and counters to walls, hard surfaced floors, and gypsum board ceilings.
- H. Indicate filler strips on drawings.
- I. Indicate door and drawer locks on drawings.
- J. Indicate back splash and side splash on drawings.
- K. Provide drawing showing edge conditions of shelves and counter edge conditions.
- L. Indicate finished flooring to be continuous beneath base cabinets.
- M. Clearly dimension heights of counters and wall cabinets above finished floor.
- N. Indicate ADA requirements including clear floor space at fixtures.
- O. 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 - PRODUCTS

4.01 GENERAL

- A. Not Applicable.

End of C1038 – Casework

END OF DOCUMENT 303.301

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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:												
Primary Authorship	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary Authorship	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DOCUMENT REVISION HISTORY

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

203.301 – Interiors, Interior Construction		
Issue	Description of Issue	Prepared by
2012 v1	Original Issue	G. Zipfel
2012 v2	Miscellaneous Review/Clarifications	G. Zipfel
2016 v1	reissued	G. Zipfel
2018 v1	Combined documents and renamed as 203.301	G. Zipfel