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USACE / NAVFAC / AFCEC / NASA **UFGS-12 35 70 (August 2016)**
Change 2 - 11/18

Preparing Activity: USACE **Superseding**
UFGS-12 35 70 (August 2010)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated July 2023
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08/16, CHG 2: 11/18

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SECTION 12 35 70

HEALTHCARE CASEWORK
08/16, CHG 2: 11/18

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NOTE: This guide specification covers the requirements for metal and wood casework for medical and dental facilities.

Adhere to UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable item(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a Criteria Change Request (CCR).
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PART 1 GENERAL

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NOTE: This specification covers metal and wood casework, normally preassembled, for installation as fixed or built-in elements in medical and dental facilities. The "casework" includes: Cabinets, singularly or in assemblies; treatment room units wardrobes; deck units; reagent racks; countertops and sink; plus their components; hardware and service fixture trim. All casework must be shown on the drawings.

A schedule of casework, shown in alpha-numerical order, will be included on the drawings. Schedules will include the Joint Schedule Number (JSN) designator, and dimensions. The schedule or

elevations should indicate the number of shelves required. Joint Schedule Numbers (JSN) or the National Stock Numbers are specified in MIL-STD-1691. Any additional specially required casework items which are not covered by MIL-STD-1691 should be described herein and identified on the drawings and schedule.

On the drawings, show:

1. Sizes and spacing of casework units, plumbing fixtures and utility outlets.

2. Schedule of casework including all component parts and accessories.

3. Details of connections and anchorage where special conditions exist. Size and spacing of anchors.

****

1.1 REFERENCES

****

NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a Reference Identifier (RID) outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.

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The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN FOREST FOUNDATION (AFF)

ATFS STANDARDS	(2015) American Tree Farm System Standards of Sustainability 2015-2020

ASTM INTERNATIONAL (ASTM)

ASTM C920	(2018) Standard Specification for Elastomeric Joint Sealants

CALIFORNIA AIR RESOURCES BOARD (CARB)

CARB 93120	(2007) Airborne Toxic Control Measure (ATCM) to Reduce Formaldehyde Emissions from Composite Wood Products

CSA GROUP (CSA)

CSA Z809-08	(R2013) Sustainable Forest Management

FOREST STEWARDSHIP COUNCIL (FSC)

FSC STD 01 001	(2015) Principles and Criteria for Forest Stewardship

PROGRAMME FOR ENDORSEMENT OF FOREST CERTIFICATION (PEFC)

PEFC ST 2002:2013	(2015) PEFC International Standard Chain of Custody of Forest Based Products Requirements

SUSTAINABLE FOREST INITIATIVE (SFI)

SFI 2015-2019	(2015) Standards, Rules for Label Use, Procedures and Guidance

U.S. DEPARTMENT OF DEFENSE (DOD)

MIL-STD-1691	(1994; Rev F) Construction and Material Schedule for Military Medical and Dental Facilities

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

40 CFR 770	Formaldehyde Standards for Composite Wood Products

1.2 SUBMITTALS

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NOTE: Review submittal description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list, and corresponding submittal items in the text, to reflect only the submittals required for the project. The Guide Specification technical editors have classified those items that require Government approval, due to their complexity or criticality, with a "G." Generally, other submittal items can be reviewed by the Contractor's Quality Control System. Only add a “G” to an item, if the submittal is sufficiently important or complex in context of the project.

For Army projects, fill in the empty brackets following the "G" classification, with a code of up to three characters to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office

(Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy, Air Force, and NASA projects.

The "S" classification indicates submittals required as proof of compliance for sustainability Guiding Principles Validation or Third Party Certification and as described in Section 01 33 00 SUBMITTAL PROCEDURES.

Choose the first bracketed item for Navy, Air Force and NASA projects, or choose the second bracketed item for Army projects.
****

Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are [for Contractor Quality Control approval.][for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government.] Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Detail Drawings; G[, [_____]]

SD-03 Product Data

Casework

Recycled Content for Baked Enamel Carbon Steel Medical Casework; S

Recycled Content for Corrosion Resisting Steel Medical Casework; S

Recycled Content for Wood Core Medical Casework; S

Recycled Content for Carbon Steel Medical Casework; S

Recycled Content for Wood Core Dental Casework; S

Recycled Content for Carbon Steel Dental Casework; S

Recycled Content for Baked Enamel Carbon Steel Dental Prosthetics Casework; S

Recycled Content for Corrosion Resisting Steel Dental Prosthetics Casework; S

Recycled Content for Corrosion Resisting Steel Countertops; S

Recycled Wood Content for Plastic Laminate Countertops; S

SD-04 Samples

Casework; G[, [_____]]

Wall Hung Cabinets; G[, [_____]]

Floor Mounted Cabinets; G[, [_____]]

Countertops; G[, [_____]]

Laminated Plastic Sheets; G[, [_____]]

SD-07 Certificates

Certified Sustainably Harvested Wood for Medical Casework; S

Certified Sustainably Harvested Wood for Countertops; S

Indoor Air Quality for Composite Wood and Agrifiber Products Used In Countertops; S

SD-08 Manufacturer's Instructions

Installation

1.3 CERTIFICATIONS

1.3.1 Certified Sustainably Harvested Wood

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NOTE: Use certified sustainably harvested wood where suitable for application and cost effective. Sustainably Harvested Wood is a product which comes from a third-party Forestry Certification Program and thus carries certain characteristics: 1) Protection of biodiversity, species at risk and wildlife habitat, sustainable harvest levels, protection of water quality, and prompt regeneration (e.g., replanting and reforestation); 2) Third-party certification audits performed by accredited certification bodies; 3) Publicly available certification audit summaries; 4) Multi-stakeholder involvement in a standards development process; 5) Complaints and appeals process.

Verify suitability, availability within the region, cost effectiveness and adequate competition before specifying these sustainably harvested wood certifications - if these conditions are verified for the project locale, include the following section. For projects pursuing LEED, delete certifications other than FSC; for all other projects pursuing third-party certification allow the entire list of third party certifications.

****

Provide wood certified as sustainably harvested by FSC STD 01 001[, ATFS STANDARDS, CSA Z809-08, SFI 2015-2019, or other third party program certified by PEFC ST 2002:2013]. Provide a letter of Certification of Sustainably Harvested Wood signed by the wood supplier. Identify certifying organization and their third party program name and indicate compliance with chain-of-custody program requirements. Submit sustainable wood certification data; identify each certified product on a line item basis. Submit copies of invoices bearing certification numbers.

[1.3.2 Indoor Air Quality Certification

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NOTE: Include this subparagraph when composite wood or agrifiber products are included in project.
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For purposes of this specification, composite wood and agrifiber products include particleboard, medium density fiberboard (MDF), wheatboard, strawboard, panel substrates, and door cores. Provide products certified to meet requirements of both 40 CFR 770 and CARB 93120. Provide current product certification documentation from certification body.

]1.4 DELIVERY, STORAGE, AND HANDLING

Deliver casework to the jobsite in the original individual containers, complete with screws, keys, and instructions. Mark each container with the manufacturer's name and catalog number. Store casework in an adequately ventilated, dry location that is free of dust, water, or other contaminates and in a manner to permit access for inspection and handling. Handle casework carefully to prevent damage to the surfaces. Replace damaged items that cannot be restored to like-new condition.

PART 2 PRODUCTS

2.1 CASEWORK

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NOTE: Joint schedule numbers used in MIL-STD-1691 provide the Military Medical Services a uniform basis for identifying casework items in medical and dental facilities. Any items required which are not covered by MIL-STD-1691 should be described appropriately and identified on the drawings with a new assigned number.

Tempered or high-density hardboard is suitable for drawer bottoms. In plastic laminate covered cabinets, back doors with plastic-laminate backing sheets.

Require non-ferrous metal fasteners, fittings, and hardware wherever possible, especially in high humidity areas of facilities.
****

Submit for approval Drawings showing layout of casework at 1:20 3/4 inch equals one foot scale. Indicate details of construction and rough-in requirements. Indicate whether cabinets are metal or wood, whether countertop is corrosion-resisting steel or plastic laminate, and whether sink is coated with [modified epoxy resin] [polypropylene] [polyethylene] or corrosion-resisting steel. All wood products must be formaldehyde free. Verify job condition affecting the work and obtain accurate field measurements for incorporation into drawings. Locate structural members, required utilities and services provided by other sections of this specification. Submit details and information necessary for fabrication and installation, manufacturer's printed data, catalog cuts, and instructions for installation and cleaning. Provide casework as scheduled

on the detail drawings. Factory fabricate of manufacturer's standard sizes and finishes and conform to MIL-STD-1691, and the requirements specified below. Supplementary ordering data are as follows: [_____]. Casework items are identified on drawings with numbers preceded by the letters "C" and "D". These numbers are Joint Schedule Numbers in MIL-STD-1691.[Provide material finish and color [in accordance with Section 09 06 00 SCHEDULES FOR FINISHES] [_____].]

2.1.1 Medical Casework

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NOTE: Plastic laminated casework may be used in non corrosive areas such as hospital rooms and nursing stations. Corrosion resisting steel should be specified for areas, such as laboratories, where highly corrosive chemicals are handled. Enameled carbon steel casework should be utilized to the maximum practicable extent in lieu of corrosion-resistant steel.

****

Provide medical casework of [baked enamel carbon steel] [corrosion resisting steel] [wood core or carbon steel covered with laminated plastic sheets]. Color of finish [_____] [in accordance with color schedule as indicated] [selected by the Contracting Officer from the manufacturer's standard colors].

2.1.1.1 Recycled Content

****

NOTE: Use materials with recycled content where appropriate for use. Verify suitability, availability within the region, cost effectiveness and adequate competition (including verification of bracketed percentages included in this guide specification) before specifying product recycled content requirements.

Research shows the product is commonly available above the minimum recycled content percentages shown below. However, higher percentages may be available. Based on research, insert desired minimum percentages into the empty set of brackets.

****

[Baked enamel carbon steel must contain a minimum of [40][____] percent recycled content. Provide data identifying percentage of recycled content for baked enamel carbon steel medical casework.] [Corrosion resisting steel must contain a minimum of [40][____] percent recycled content. Provide data identifying percentage of recycled content for corrosion resisting steel medical casework.] [Wood core must contain a minimum of [50][____] percent recycled content. Provide data identifying percentage of recycled content for wood core medical casework.] [Carbon steel covered with laminated plastic sheets must contain a minimum of [40][____] recycled content. Provide data identifying percentage of recycled content for carbon steel medical casework.]

2.1.1.2 Sustainably Harvested Wood

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NOTE: Use certified sustainably harvested wood where suitable for application and cost effective. Verify suitability, availability within the region, cost effectiveness, and adequate competition before specifying this certification.

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Wood materials must contain a minimum of [50][_____] percent wood that is certified sustainably harvested. Provide documentation that certified sustainably harvested wood for medical casework is used and identify percentage.

2.1.2 Dental Casework

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NOTE: When selection is to be made from manufacturer's standard samples, specify whether solids or woodgrains are required.

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Provide dental operator casework of [wood core] [carbon steel] covered with laminated plastic sheets. Pattern, color and finish of decorative laminated plastic for exteriors of casework [_____] [in accordance with color schedule as indicated] [selected by the Contracting Officer from the manufacturer's standard [color] [woodgrain] samples].[

****

NOTE: Use materials with recycled content where appropriate for use. Verify suitability, availability within the region, cost effectiveness and adequate competition (including verification of bracketed percentages included in this guide specification) before specifying product recycled content requirements.

Research shows the product is commonly available above the minimum recycled content percentages shown below. However, higher percentages may be available. Based on research, insert desired minimum percentages into the empty set of brackets.

****

Wood core covered laminated plastic sheets must contain a minimum of [50][____] percent recycled wood content. Provide data identifying percentage of recycled content for wood core dental casework.] [Carbon steel covered laminated plastic sheets must contain a minimum of [40][____] percent recycled steel content. Provide data identifying percentage of recycled content for carbon steel dental casework.]

2.1.3 Dental Prosthetics Casework

Provide dental prosthetics casework of [baked enamel carbon steel] [corrosion resisting steel]. Color of finish [_____] [in accordance with color schedule as indicated] [selected by the Contracting Officer from the manufacturer's standard colors].[

****

NOTE: Use materials with recycled content where appropriate for use. Verify suitability, availability within the region, cost effectiveness and adequate competition (including verification of bracketed percentages included in this guide specification) before specifying product recycled content requirements.

Research shows the product is commonly available above the minimum recycled content percentages shown below. However, higher percentages may be available. Based on research, insert desired minimum percentages into the empty set of brackets.

****

Baked enamel carbon steel must contain a minimum of [40][____] percent recycled steel content. Provide data identifying percentage of recycled content for baked enamel carbon steel dental prosthetics casework.] [Corrosion resisting steel must contain a minimum of [40][____] percent recycled steel content. Provide data identifying percentage of recycled content for corrosion resisting steel dental prosthetics casework.]

2.1.4 Countertops

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NOTE: Do not specify countertops constructed of particle board for high humidity locations or project locations with Environmental Severity Classifications (ESC) of C3 thru C5. See UFC 1-200-01 for determination of ESC for project locations.

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Provide countertops of [corrosion-resisting steel] [plastic laminate covered plywood] [plastic laminate covered particleboard] [modified epoxy resin] [or] [resin coated laminated pressed wood fiber]. In lieu of individual samples, complete minimum size casework may be submitted as samples. Mock-up units are not acceptable. Provide samples of sufficient size to show color, pattern, and method of assembly. Some requirements are:

Countertop and backsplash	One section, containing both
Door and drawer front	One of each, with hardware mounted
Melamine plastic color samples	approx 50 X 75 mm 2 X 3 inch size
Stain/color samples	approx 50 by 75 mm 2 by 3 inch size

[2.1.4.1 Recycled Content

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NOTE: Use materials with recycled content where appropriate for use. Verify suitability, availability within the region, cost effectiveness and adequate competition (including verification of

bracketed percentages included in this guide specification) before specifying product recycled content requirements.

Research shows the product is commonly available above the minimum recycled content percentages shown below. However, higher percentages may be available. Based on research, insert desired minimum percentages into the empty set of brackets.

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[Corrosion-resisting steel must have a minimum of [40][_____] percent recycled steel content. Provide data identifying percentage of recycled content for corrosion resisting steel countertops.] [Plastic Laminate (plywood or particleboard) must have a minimum of [50][_____] percent recycled wood content. Provide data identifying percentage of recycled wood content for plastic laminate countertops.]

]2.1.4.2 Sustainably Harvested Wood

Wood materials must contain a minimum of [50][_____] percent wood that is certified sustainably harvested. Provide documentation that certified sustainably harvested wood for countertops is used and identify percentage.

2.1.4.3 Indoor Air Quality Requirements

Provide certification of indoor air quality for composite wood and agrifiber products used in countertops.

2.2 PLUMBING FIXTURES

Provide faucet, trap and drain fittings, gas, air and vacuum cocks as required. Provide connection conforming to the requirements specified in Section 22 00 70 PLUMBING, HEALTHCARE FACILITIES.

PART 3 EXECUTION

3.1 INSTALLATION

Install casework in a manner that does not damage the work of other trades. Secure the casework in place in true alignment, level, and plumb. Secure units with screws through backs to cleats that have been anchored to building structure with toggle or expansion bolts.

Do not install building construction materials that show visual evidence of biological growth.

3.1.1 Wall Hung Cabinets

Install wall-hung cabinets to support the weight of the cabinets plus the normally expected weight of the contents of the cabinets. Space fasteners 300 mm 12 inch on center using at least three bolts in each 900 or 1200 mm 3 or 4 foot unit width. Join adjacent cabinets in an assembly together at top and bottom with inconspicuous bolts or clips. Seal joints between the casework and wall surfaces which are not larger than the joints between casework sections with sealant conforming to ASTM C920, Type M, Grade NS, Class 25, Use NT. Close larger joints with filler strips of the same material and finish as adjacent casework. Cut filler strips to the contour of the wall surface and secure to the casework with concealed

nails or screws. Use filler strips no wider than 150 mm 6 inch.

3.1.2 Floor Mounted Cabinets

Set floor-mounted metal cabinets on a common metal base or integral base, in assemblies up to 1800 mm 6 feet in length in rooms having concrete or resilient flooring. Bolt cabinets to bases at cabinet corners. Face metal bases with resilient material to match wall base in space where the cabinets are located. Fasten together adjoining cabinets at top and bottom of front and back with bolts placed inconspicuously inside cabinets. Set metal cabinets in rooms having terrazzo or ceramic-tile floors on concrete or masonry bases with exposed faces finished the same as other bases in the room. Seal flush openings between cabinet and wall surfaces, due to irregularity of surfaces, with Type S or M, Grade NS, Class 12.5, use NT, conforming to ASTM C920. Close exposed-to-view openings larger than joints in tile work with filler or scribing strip of the same material and finish as adjacent casework. Cut filler to contour of wall surface and secure to casework with concealed sheet-metal screws. Use minimum width and number of fillers consistent with need and do not use filler exceeding 150 mm 6 inch in width.

3.1.3 Countertops

Height of counter tops as indicated. Where required, provide toe space at front of cabinets by installing front face of cabinets 75 mm 3 inch in front of face of base. Where toe space is not required, face of base and cabinets must be flush. Bases must have a height of approximately 100 mm 4 inch. Install all items as required for proper operation in accordance with the manufacturer's directions.

3.2 INSPECTION AND CLEANING

Inspect placed items for proper location, fastening, connection to utilities, operation, and for damage which may have occurred during installation. Put each item into service to prove proper operation. Correct defects disclosed during inspection. Clean cabinets and countertops in accordance with manufacturer's instructions.

-- End of Section --