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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The CSI Construction Specifications Practice Guide*.

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

Section numbers and titles are from *MasterFormat 2012 Update*.

SECTION 10 51 00 or 10 51 26

LOCKERS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Solid surface athletic lockers

1.2 RELATED REQUIREMENTS

- A. Division 06 Section "Rough Carpentry" for locker anchorage
- B. Division 16 - Electrical for power wiring
- C. Division 26 Sections for power and data

1.3 REFERENCE STANDARDS

- A. ANSI A208.2 – Medium Density Fiberboard for Interior Use.
- B. ANSI-BHMA A156.9 - Cabinet Hardware.
- C. ASTM D 256 – Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.

- D. ASTM D 570 – Standard Test Method for Water Absorption of Plastics.
- E. ASTM D 638 – Standard Test Method for Tensile Properties of Plastics.
- F. ASTM D 785 – Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials.
- G. ASTM D 790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
- H. ASTM D 2583 – Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor.
- I. GREENGUARD Environmental Institute (GEI): GREENGUARD certified low emitting products.

1.4 SUBMITTALS

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
 - 1. Rated capacities, construction details, material descriptions, dimensions of individual components, profiles, and finishes.
 - 2. Delivery, storage, handling, and installation instructions and recommendations.
 - 3. Maintenance instructions and recommendations.
- C. Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections, and details, indicating dimensions, tolerances, materials, components, fabrication, edge treatment, corners, seam locations, fasteners, hardware, finish, options, and accessories.
 - 1. Show locations and sizes of cutouts and holes for lighting, technology components, graphics, and other items to be installed in lockers.
 - 2. Show system layouts, room locations, clearances, spacing, and relationship to adjacent construction.
- D. Samples: Submit manufacturer's samples of solid surface material in each color and finish specified.
 - 1. Size: Minimum 2 inches by 2 inches.
- E. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- F. Manufacturer's Project References: Submit manufacturer's list of successfully completed solid surface locker projects, including project name and location, name of architect, and type and quantity of locker furnished.
- G. Installer's Project References: Submit installer's list of successfully completed locker projects, including project name and location, name of architect, and type and quantity of lockers installed.

- H. Care and Maintenance Instructions: Submit manufacturer's care and maintenance instructions, including cleaning and repairing instructions.
- I. Warranty Documentation: Submit manufacturer's standard warranty.
- J. Closeout Submittals: Submit operations and maintenance data for adjusting, repairing and replacing components and accessories.

1.5 QUALITY ASSURANCE

1.6 Locker construction shall include the following features:

- A. Locker Construction: Locker construction shall include the following features: solid surface locker frame construction, bolt-through construction; modular construction, all parts repairable and replaceable; embedded metal insert construction.
- B. Manufacturer's Qualifications: Manufacturer has regularly engaged, for past 2 years, in manufacturing of solid surface lockers of similar type to that specified.
- C. Installer's Qualifications:
 - 1. Installer regularly engaged, for past 2 years, in installation of solid surface lockers in use in similar environments, including project size, and complexity, and with the production capacity to meet the construction and installation schedule.
 - 2. Employ persons trained for installation of solid surface lockers.
- D. Mock-Up: Provide a prototype unit or mock-up for evaluation of fabrication, materials and installation workmanship.
 - 1. Finish areas designated by Architect including shims, sealants, and accessories.
 - 2. Provide full size units, if accepted, units may remain as part of the completed work.
 - 3. Do not proceed with remaining work until workmanship is approved by Architect.
 - 4. Refinish mock-up area as required to produce acceptable work.

1.7 PRE-INSTALLATION MEETINGS

- A. Convene at the project site a minimum of two weeks prior to starting work of this section.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Do not deliver lockers until spaces to receive them are clean, dry, and ready for their installation. Ship to jobsite only after roughing-in, painting and other finishing work has been completed, installation areas are ready to accept work.
- C. Field Measurements: Verify field measurements as indicated on Shop Drawings. Where measurements are not possible, provide control dimensions and templates.
 - 1. Coordinate installation and location of blocking and supports as requested.

2. Verify openings, clearances, storage requirements and other dimensions relevant to the installation and final application.

D. Storage and Handling Requirements:

1. Store and handle materials in accordance with manufacturer's instructions.
2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
3. Store materials in clean, dry area indoors.
4. Store materials on flat, level surface, raised above floor, with adequate support to prevent sagging.
5. Store materials out of direct sunlight.
6. Keep materials from freezing.
7. Protect materials during storage, handling, and installation from dirt, stains, cracks, scratches, and other damage.

1.9 WARRANTY

A. Warranty Period:

1. Solid Surface Material:
 - a. LG Hausys "HI-MACS": 15 years.
2. Lockers: Lifetime. See Shield's Limited Lifetime Warranty terms at www.shieldcasework.com.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Shield Casework, 1120 Ellerbrook Road, North Kansas City MO 64116. Phone 816.875.3317. Fax 816.875.3307. Website www.shieldcasework.com. E-mail info@shieldcasework.com.

2.2 MATERIALS

- A. Locker Material: LG Hausys "HI-MACS" 100 percent acrylic solid surface.

1. Certification:
 - a. NSF 51 certified for food preparation area.
 - b. Greenguard certified for indoor air quality.
2. Nonporous.
3. Seamless.
4. Microbial resistant.
5. Solid, uniform, and consistent color throughout material thickness.
6. Recycled Content: Maximum 41 percent.

- B. Solid Surface Material Physical Properties: LG Hausys "HI-MACS".

1. Rockwell Hardness, ASTM D 785: 90.
2. Barcol Hardness, ASTM D 2583: 65.
3. Tensile Strength, ASTM D 638: 5,500 psi.
4. Tensile Modulus, ASTM D 638: 1.35×10^6 psi.
5. Flexural Strength, ASTM D 790: 11,424 psi.
6. Flexural Modulus, ASTM D 790: 1.34×10^6 psi.
7. Izod Impact Strength, ASTM D 256: 0.26 ft-lbs per in.

8. Water Absorption, ASTM D 570, 1/2-inch sheet: 0.04 percent.
- C. Solid Surface Material Physical Properties: Dupont “Corian”.
1. Rockwell Hardness, ASTM D 785: Greater than 85.
 2. Barcol Hardness, ASTM D 2583: 56.
 3. Tensile Strength, ASTM D 638: 6,000 psi.
 4. Tensile Modulus, ASTM D 638: 1.5×10^6 psi.
 5. Flexural Strength, ASTM D 790: 10,000 psi.
 6. Flexural Modulus, ASTM D 790: 1.2×10^6 psi.
 7. Izod Impact Strength, ASTM D 256: 0.28 ft-lbs per in.
 8. Water Absorption, ASTM D 570, 1/2-inch sheet: 0.06 percent.
- D. Locker Construction: ½” solid surface folded seamed frame with embedded metal inserts securing connections.
1. 1. Single, full height as indicated on the Drawings.
 2. Upper Door, Frame, Sides, Tops, Bottoms, Dividers, and Shelves: 1/2-inch-thick solid surfacing plastic with matte textured finish.
 3. End Panels: 3/8-inch-thick solid surfacing plastic with matte texture finish.
- E. Locker Interior and Sides: Solid surface with folded square seamed corners.
- F. Locker Backer: Laminate.
- G. Locker Door: Solid surface.
- H. Drawers: Solid surface drawer face with custom acrylic inlay, integral soft-closing glides and solid surface drawer back and bottom.
- I. Shelves: Solid surface.
- J. Solid Surface Thickness: 1/2 inch.
- K. Cabinet Toe Kick: 1” SierraPine “Medex” or “Medite” (to be covered by finish material)
1. Moisture-resistant, industrial-grade, medium density fiberboard (MDF).
 2. Formaldehyde-free adhesive system.
 3. Pre-consumer recycled wood fiber.
 4. ANSI A208.2, Grade 155.
- L. Hardware:
1. Drawer Glides: Integral drawer glides.
 2. Pulls: As specified by drawings
 3. Concealed Hinges: Zinc-coated steel.
 - a. Add lid stays for lift-up hinge functionality.
 4. Embedded Metal Inserts: Stainless steel, to secure hardware.
 5. Levelers: Mounted to base with 2” minimum variation
 6. Cleat Bracket: Adjustable bracket to attach to the wall
 7. Screws: Stainless steel.

2.3 Accessories:

- A. Locker Bench: Seat with drawer, vented front.
- B. Nameplates:
 - 1. Custom metal housing with acrylic name panels with UL-listed backlight.
- C. Locker Outlets:
 - 1. Dual USB.
- D. Coat Hooks, Hanging Rods and Other Accessories:
 - 1. Hook quantity as specified on drawings
 - 2. Hanging rod as specified on drawings
 - 3. Game day pad hook as specified on drawings
- E. Lights: U.L. listed and rated, LED light with automatic on/off motion sensor switch, provide the following:
 - 1. Shelf/cubby Lights.
 - 2. Locker Interior Lights.
- F. Locker Color:
 - 1. SS-1: LG Hausys "HI-MACS", Alpine White
 - 2. SS-2: LG Hausys "HI-MACS", Black
- G. Door Color:
 - 1. SS-1: LG Hausys "HI-MACS", Alpine White
- H. Shelf Color:
 - 1. SS-1: LG Hausys "HI-MACS", Alpine White
- I. Back Color:
 - 1. Laminate to match SS-1.
- J. Bench Seat Color:
 - 1. SS-1: LG Hausys "HI-MACS", Alpine White
- K. Bench Cushion: Arctic or marine grade vinyl
- L. Locks:
 - 1. Lock Type: Programmable digital lock with battery-powered electronic keypad with reprogrammable manager and owner codes that override access, and steel strike plate and security tab.
- M. Locker Unit Connectors:
 - 1. Metal joint connector nuts and mount-on bolts with internal thread, brushed or chrome-finished.

2.4 FABRICATION

- A. Shop fabricate solid surface locker. Fabricate locker frame/box from a single sheet of solid surface with corners fused together. Provide all welded construction of locker parts without dovetail joints or metal fasteners. Add embedded metal inserts for all hardware connections.
- B. Fabricate seams in solid surface locker to appear virtually seamless.
- C. Center Dividers: Full-depth, vertical partitions between bottom and shelf; finished to match lockers.
- D. Hardware Attachment: All hinges, handles, hasps, hooks, latch bars, and locks attached with tamper-resistant screws.
- E. Provide ventilated panels where indicated.
- F. Filler Panels: Fabricated in unequal leg angle shape; finished to match lockers.
- G. Finished End Panels: Fabricated with 1/2-inch-wide edge dimension, configured to conceal fasteners and holes at exposed ends of solid surfacing lockers.
- A. Player Locker Dimensions:
 - 1. Width: 30 inches.
 - 2. Height: 92 inches.
 - 3. Depth: 33 inches.
 - 4. Shelves:
 - a. Fixed
 - 5. Bench: Drawer
 - a. Width: 29 inches.
 - b. Height: 15 inches.
 - c. Depth: 30 inches.
 - 6. Edges: 1/16-inch round over.
 - 7. Doors: As specified on drawings.

2.5 FINISHES

- A. Color: _____.
- B. Solid surface locker of same color from same production batch.

2.6 SOURCE QUALITY CONTROL

- A. Visual Inspection of Solid Surface Material: Do not shop fabricate solid surface locker that does not pass visual inspection of solid surface material at supplier's factory.
 - 1. Warping: Less than 1/8 inch per 10 feet of material.
 - 2. Foreign Particles: Less than 0.005 inch.
 - 3. Color Match: Same lot.
 - 4. White Spots: Less than 3 visible particles per sheet.
 - 5. Discoloration: None.
 - 6. Particle Distribution: Even distribution.
 - 7. Pit Holes: None.
 - 8. Uneven Sanding: None.
 - 9. Hairline Cracks: None.
 - 10. Concave: None.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates to receive solid surface lockers.
- B. Verify surfaces to support solid surface locker are clean, dry, flat, level, plumb, stable, rigid, and capable of supporting the weight.
- C. Notify Architect of conditions that would adversely affect installation or subsequent use.
- D. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Verify installer, if not the solid surface locker manufacturer, has documented experience with solid surface lockers and furniture fabrication, handling, and installation.
- B. Install solid surface lockers in accordance with manufacturer's instructions at locations indicated on the Drawings.
- C. Acclimate solid surface lockers to room temperature before installation.
- D. Install solid surface lockers plumb, level, and square.
- E. Anchor solid surface lockers securely in place to supports.
- F. Fit solid surface lockers accurately together to form flush, tight, hairline joints. Connect adjacent lockers with furniture/sex bolts (provided by manufacturer) and neoprene gasketing to ensure precise 1/8" reveal. Do not overtighten bolts.
- G. Install solid surface lockers without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings, providing unencumbered operation. Complete installation of hardware and accessory items as indicated.

- H. Install scribe or frames as specified in manufacturer's instructions at locations indicated on the Drawings.

SECTION

1.1 ADJUSTING

- A. Adjust operating hardware to operate smoothly without binding.
- B. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- C. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by Architect.

1.2 CLEANING

- A. Clean solid surface lockers promptly after installation in accordance with manufacturer's instructions.
- B. Remove surface scratches in accordance with manufacturer's instructions.

1.3 PROTECTION

- A. Protect installed solid surface lockers from dirt, stains, cracks, scratches, and other damage during construction to avoid additional cleanup after installation.
- B. Do not use installed solid surface lockers as work surfaces or storage during construction.

Specifier Notes: Delete the Locker Schedule if not required for the project or if the schedule is on the Drawings. Coordinate the schedule with the information in Part 2 – Products.

1.4 SCHEDULES

- A. Locker Schedule:

END OF SECTION