

**WOOD DOORS**

**PART 1 GENERAL**

**SECTION INCLUDES**  
A. Flush wood veneer doors.

**REFERENCES**  
A. ANSI A135.4: Basic Hardboard.  
B. ANSI/HPMA HP: Hardwood and Decorative Plywood.  
C. ASTM E152: Fire Tests of Door Assemblies.  
D. A.W.I.: Quality Standards of Architectural Woodwork Institute.  
E. ANSI A208.1: Met Formed Particleboard.  
F. NFPA 80: Fire Doors and Windows.  
G. NFPA 252: Methods of Fire Tests for Door Assemblies.  
H. NFPA 101: Life Safety Code.  
I. Warnock Hersey International: Certification Listings for Fire Doors.

**SUBMITTALS**  
A. Submit under provisions in General Conditions.  
B. Product Data: Manufacturer's data sheets on each product to be used, including:  
1. Indicate door core materials and construction; veneer species or high pressure laminate as applicable, type and characteristics; factory machining criteria.  
2. Storage and handling requirements and recommendations.  
C. Shop Drawings: Illustrate door opening criteria, elevations, sizes, types, swings, under cuts, special beveling and special blocking for hardware. Identify cutouts for glazing and louvers.

**REGULATORY REQUIREMENTS**  
A. Fire Door Construction:  
1. Conform to NFPA 252.  
B. Installed Fire Rated Door and/or Transom Panel Assembly: Conform to NFPA80 for fire rated glass as scheduled.

**QUALITY ASSURANCE**  
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum 5 years experience.  
B. Perform work in accordance with A.W.I. Quality Standards Section 1300, Premium Grade.

**DELIVERY, STORAGE, AND HANDLING**  
A. Store products in manufacturer's unopened packaging until ready for installation.

**PROJECT CONDITIONS**  
A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

**WARRANTY**  
A. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials and telegraphing core construction.  
B. Provide manufacturer's standard warranty as follows:  
1. Interior Doors: Lifetime of installation.

**PART 2 PRODUCTS**

**MANUFACTURERS**  
A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering doors that may be incorporated in the Work include, but are not limited to, the following:  
Eggers Industries  
Algoma Hardwoods, Inc.  
Lambton Doors  
Graham  
Mohawk  
Eliason Corporation

**FLUSH WOOD DOORS**  
A. Door Types:  
1. Flush Interior Doors: 1-3/4 inches (44 mm) thick; solid core construction; fire rated or non-rated as indicated. Refer to drawings and schedule.  
B. Door Construction:  
1. Core (Solid, Non Rated): AWI Section 1300.  
a. Type PC-Particleboard.  
2. Core (Solid, Fire-Rated): AWI Section 1300.  
a. Type FD 1/3  
C. Flush Door Facing:  
1. Wood Veneer Facing:  
a. AWI Premium grade wood species; Plain Sliced Maple.  
b. Provide bookmatched grain.  
2. Vertical Exposed Edge of Stiles: Mill option for transparent finish.  
D. Color:  
1. #675 SS2 Stain Group  
E. Accessories:  
1. Metal Louver: Refer to schedule for location, size and style.  
2. Glazing Stops: Painted metal.

**FABRICATION**  
A. Fabricate non-rated doors in accordance with AWI Quality Standards requirements.  
B. Fabricate fire doors in accordance with AWI Quality Standards and to Warnock Hersey International requirements. Attach fire rating to door hinge stile.  
C. Provide blocking where necessary for hardware reinforcements.  
D. Fit door edge trim to edge of stiles after applying veneer facing.  
E. Bond edge banding to stile.  
F. Factory machine doors for finish hardware in accordance with hard-ware requirements and dimensions.  
G. Factory prefit doors for frame opening dimensions identified on shop drawings or frame schedule.

**PART 3 EXECUTION**

**EXAMINATION**  
A. Do not begin installation until substrates have been properly prepared.  
B. Verify that opening sizes and tolerances are acceptable.  
C. Do not install doors in frame openings that are not plumb or are out-of-true for size or alignment.  
D. If substrate preparation is the responsibility of another trade, notify architect of unsatisfactory preparation before proceeding.

**PREPARATION**  
A. Clean surfaces thoroughly prior to installation.  
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

**INSTALLATION**  
A. Install in accordance with manufacturer's instructions.  
B. Install non-rated doors in accordance with AWI Quality Standards requirements Section 1300.  
C. Install fire rated doors in accordance with AWI Quality Standards (NFPA-80) and to Warnock Hersey International requirements.  
D. Machine cut non-rated doors for hardware. Core for handsets and cylinders.

**INSTALLATION TOLERANCES**  
A. Conform to AWI requirements for fit and clearance.  
B. Conform to AWI requirements for maximum diagonal distortion.

**ADJUSTING**  
A. Adjust door hardware for smooth and balanced door movement.

**PROTECTION**  
A. Protect installed doors until completion of project.  
B. Touch-up, repair or replace damaged doors before Substantial Completion.

**END OF SECTION**

**FIRE EXTINGUISHERS, CABINETS, AND ACCESSORIES**

**PART 1: GENERAL**

**1.01 WORK INCLUDED**  
A. Fire Extinguishers  
B. Cabinets  
C. Accessories

**1.02 RELATED WORK**  
A. Painting  
B. Facility Fire-Suppression

**1.03 REFERENCES**  
A. NFPA 10 - Portable Fire Extinguishers  
B. ADA Accessibility Guidelines  
C. UBC Standard 7-5 (ASTM E-814-B3) - Fire-rated cabinet option for combustible and non-combustible walls

**1.04 QUALITY ASSURANCE**  
A. Conform to NFPA 10 requirements for portable fire extinguishers.  
B. Provide fire extinguishers, cabinets, and accessories by single manufacturer.

**1.05 SUBMITTALS**  
A. Submit product data in compliance with General Conditions.

**PART 2: PRODUCTS**

**2.01 ACCEPTABLE MANUFACTURERS**  
A. Where shown on the drawings, provide fire extinguishers, cabinets, accessories manufactured by Larsen's Manufacturing Co., 7421 Commerce Lane N.E., Minneapolis, MN 55432 (763) 571-1181 or (800)527-7367.  
B. J.L. Industries  
C. Or Equal.

**2.02 FIRE EXTINGUISHERS**  
A. Dry Chemical Type: Larsen's MP or DC Series  
1. 10 lb. tank

**2.03 FIRE EXTINGUISHER CABINETS**  
A. Where indicated on drawings, provide Larsen's Architectural Series, model number 2409-6R with Full Clear Acrylic door. Door and trim to be fabricated from (cold-rolled steel). Special painted surfaces, color anodized aluminum, and graphics as indicated.  
B. Provide cabinets with fire-rated option, if applicable.

**2.04 ACCESSORIES**  
A. Fire Blankets and Cabinets  
B. Vigilante Cabinet Alarm  
C. Extinguisher Brackets

**PART 3: EXECUTION**

**3.01 INSPECTION**  
A. Verify that rough openings for cabinets are correctly sized and located.

**3.02 INSTALLATION**  
A. Install the items of this Section in strict accordance with the original design, approved shop drawings, and requirements of agencies having jurisdiction, as approved by the Architect, anchoring all components firmly into position.

**END OF SECTION**

**SIGNS**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**  
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

**1.2 SUMMARY**  
A. This Section includes the following types of signs:  
1. Plastic wall signs mounted beside entrance doors to spaces indicated below.  
2. Metal numbers, 8" high, bronze. See exterior elevations for location.

**1.3 SUBMITTALS**  
A. General: Submit the following according to the Conditions of the Contract and Division 1 Specification Sections.  
B. Product data for each type of sign specified, including details of construction relative to materials, dimensions of individual components, profiles and finishes.  
C. Shop drawings showing pictorial image of each sign to be installed. Show installation details.

**1.4 QUALITY ASSURANCE**  
A. Sign Fabricator Qualifications: Use firm experienced in producing signs similar to those specified in this Project, with a record of successful in-service performance, and sufficient production capacity to produce sign units required without causing delay to the Work.  
B. Site-Specific Responsibility: For each separate sign type required, obtain signs from one source, to a single manufacturer.

**PART 2 - PRODUCTS**

**2.1 SIGNS**  
A. Sign shall be placed on the wall beside the door entering the room.  
B. Sign shall be placed on latch side of door frame at a height of 60 inches from the floor to the centerline of the sign. (OR on left side of pairs of doors)  
C. Sign shall be plastic sign with raised letters, pictograms, Braille lettering, etc. of a contrasting color from the background. Sign shall be screwed to the wall using fasteners that will adequately secure sign to the wall finish.  
D. Sign shall conform to the requirements of chapter 4.28 "Signage" of CABO/ANSI A117.1-1992, American National Standard, Accessible and Usable Buildings and Facilities.  
E. Exterior sign above drive thru shall be black reflective letters on "Caution Yellow" colored sign.  
F. Note: The exterior handicapped parking signs and the sign at the dumpster are listed in the civil drawings.

**PART 3 - EXECUTION**

**3.1 INSTALLATION**  
A. Locate signs where indicated or directed by Architect, using mounting methods specified. Install level, plumb, and at height indicated, with sign surfaces free from distortion or other defects in appearance.

**3.2 SIGN SCHEDULE**  
A. At doors D6: Sign shall read WOMEN'S (Indicate Handicap Accessibility)  
B. At doors D4: Sign shall read MEN'S (Indicate Handicap Accessibility)

**END OF SECTION**

**TOILET ACCESSORIES**

**PART 1 GENERAL**

**1.1 QUALITY ASSURANCE**  
A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

**PART 2 PRODUCTS**

**2.1 MATERIALS**  
A. Toilet and Bath Accessories:  
1. Refer to drawings for list of accessories.  
B. ACCEPTABLE MANUFACTURERS:  
1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering toilet accessories that may be incorporated in the Work include, but are not limited to, the following:  
a. Bobrick Washroom Equip., Inc.  
b. Bradley Corporation.  
c. McKinney/Parker.

**PART 3 EXECUTION**

**3.1 INSTALLATION**  
A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.  
B. Restore damaged finishes and test for proper operation. Clean and protect work from damage.  
C. Mount all products at ADA heights.

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**SECTION 087100 - DOOR HARDWARE**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**  
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

**1.2 SUMMARY**  
A. This Section includes commercial door hardware for the following:  
1. Swinging doors.  
B. Door hardware includes, but is not necessarily limited to, the following:  
1. Mechanical door hardware  
2. Cylinders specified for doors in other sections.  
C. Related Sections:  
1. Division 08 Section "Door Schedules"  
2. Division 08 Section "Door Hardware and Frames"  
3. Division 08 Section "Hollow Metal Doors and Frames"  
4. Division 08 Section "Flush Wood Doors"  
5. Division 08 Section "Aluminum-Framed Entrances and Storefronts".  
Codes and Regulations: Comply with the version year adopted by the Authority Having Jurisdiction.  
ANSI 17.1 - Accessible and Usable Buildings and Facilities.  
UL10C - Testing and Rating of Severe Windstorm Resistant Components for Swing Door Assemblies.  
3. ASTM E1996 - Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Shutters Impacted by Missiles and Exposed to Cyclic Pressure Differentials.  
4. ASTM E330 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.  
5. ASTM E1996 - Standard specification for performance of exterior windows, curtain walls, doors and storm shutters impacted by Windborne Debris in Hurricanes.  
6. ICC/IBC - International Building Code.  
7. NFPA 70 - National Electrical Code.  
8. NFPA 80 - Fire Doors and Windows.  
9. NFPA 101 - Life Safety Code.  
10. NFPA 105 - Installation of Smoke Door Assemblies.  
11. State Building Codes, Local Amendments.

**E. Standards: All hardware specified herein shall comply with the following industry standards:**  
1. ANSI/BHMA Certified Product Standards - A156 Series  
2. UL10C - Positive Pressure Fire Tests of Door Assemblies

**1.3 SUBMITTALS**  
A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.  
B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.  
1. Format: Comply with scheduling sequence and vertical format in DH's "Sequence and Format for the Hardware Schedule."  
2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

**DOOR HARDWARE (CONT.)**

**3. Content: Include the following information:**  
a. Type, style, function, size, label, hand, and finish of each door hardware item.  
b. Manufacturer of each item.  
c. Fastenings and other pertinent information.  
d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.  
e. Explanation of abbreviations, symbols, and codes contained in schedule.  
f. Mounting locations for door hardware.  
g. Door and frame sizes and materials.  
h. Warranty information for each product.

**4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede installation of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.**

**C. Keying Schedule: After a keying meeting with the Owner has taken place, prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key symbols, software set numbers and special instructions. Owner must approve submitted keying schedule prior to ordering permanent cylinders/cores.**

**D. Informational Submittals:**  
1. Hurricane Resistant Openings: Exterior hurricane opening assemblies to be tested according to ASTM E330, ASTM E1886, ASTM E1996 standards, and certified by a qualified independent third party testing agency acceptable to authority having jurisdiction, with labeling indicating compliance with the wind load and design pressure level requirements specified for the Project.  
2. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.  
E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for key system covering the complete door hardware installation in quantity as required in Division 01, Closeout Submittals.

**1.4 QUALITY ASSURANCE**  
A. Manufacturer Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.  
B. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.  
C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.  
D. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.  
1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.  
E. Hurricane Resistant Exterior Openings: Provide exterior door hardware as complete and tested assemblies, or component assemblies, including approved doors and frames specified under Section 081113 "Hollow Metal Doors and Frames", to meet the wind loads, design pressures, debris impact resistance, and glass and glazing requirements applicable to the Project.  
1. Test units according to ASTM E330, ASTM E1886, ASTM E1996 standards, certified by a qualified independent third party testing agency acceptable to authority having jurisdiction, and bearing a third party certification agency permanent label indicating windstorm approved product.  
F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.  
G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:  
1. Function of building, purpose of each area and degree of security required.  
2. Plans for existing and future key system expansion.  
3. Requirements for key control storage and software.  
4. Installation of permanent keys, cylinder cores and software.  
5. Address and requirements for delivery of keys.  
H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.  
1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.  
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.  
3. Review sequence of operation narratives for each unique access controlled opening.  
4. Review and finalize construction schedule and verify availability of materials.  
5. Review the required inspecting, testing, commissioning, and demonstration procedures

**I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.**

**1.5 DELIVERY, STORAGE, AND HANDLING**  
A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.  
B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.  
C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

**1.6 COORDINATION**  
A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.  
B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.



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REVISIONS	
MARK	DATE

SHEET NAME  
**ARCHITECTURAL SPECIFICATIONS**

PROJECT NO. 2018-16  
DATE OCTOBER 3, 2018  
SHEET NO.

**A0.9**