SECTION 08 71 00 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Door hardware.

B. Related Divisions:

1. Division 06 – door hardware installation
2. Division 07 – sealant at exterior thresholds
3. Division 08 – metal doors and frames, interior aluminum frames, wood doors, integrated security systems, specialty doors, storefront and glazed curtainwall systems.

C. Specific Omissions: Hardware for the following is specified or indicated elsewhere.

1. Windows.
2. Cabinets, including open wall shelving and locks.
3. Signs, except where scheduled.
4. Toilet accessories, including grab bars.
5. Installation.
6. Rough hardware.
7. Conduit, junction boxes & wiring.
8. Folding partitions, except cylinders where detailed.
9. Aluminum doors, except cylinders where detailed.
10. Access doors and panels, except cylinders where detailed.

1.2 REFERENCES:

A. Use date of standard in effect as of Bid date.

1. American National Standards Institute

   a) ANSI 156.18 – Materials and Finishes.

2. BHMA – Builders Hardware Manufacturers Association
3. 2018 California Building Code

   a) Chapter 11B – Accessibility To Public Buildings, Public Accommodations, Commercial Buildings and Public Housing

4. DHI – Door and Hardware Institute
5. NFPA – National Fire Protection Association

   a) NFPA 80 2018 Edition – Standard for Fire Doors and Other Opening Protectives.
   b) NFPA 105 – Smoke and Draft Control Door Assemblies
   c) NFPA 252 – Fire Tests of Door Assemblies

6. UL – Underwriters Laboratories

   a) UL10C – Positive Pressure Fire Tests of Door Assemblies.

b) UL 305 – Panic Hardware

7. WHI – Warnock Hersey Incorporated State of California Building Code
8. Local applicable codes
9. SDI – Steel Door Institute
10. WI – Woodwork Institute
11. AWI – Architectural Woodwork Institute
12. NAAMM – National Association of Architectural Metal Manufacturers

B. Abbreviations

1. Manufacturers**:** see table at 2.1.A of this section
2. Finishes**:** see 2.7 of this section.

1.3 SUBMITTALS & SUBSTITUTIONS

A. SUBMITTALS**:** Submit six copies of schedule per D. Only submittals printed one sided will be accepted and reviewed. Organize vertically formatted schedule into "Hardware Sets" with index of doors and headings, indicating complete designations of every item required for each door or opening. Minimum 10pt font size. Include following information**:**

1. Type, style, function, size, quantity and finish of hardware items.
2. Use BHMA Finish codes per ANSI A156.18.
3. Name, part number and manufacturer of each item.
4. Fastenings and other pertinent information.
5. Location of hardware set coordinated with floor plans and door schedule.
6. Explanation of abbreviations, symbols, and codes contained in schedule.
7. Mounting locations for hardware.
8. Door and frame sizes, materials and degrees of swing.
9. List of manufacturers used and their nearest representative with address and phone number.
10. Catalog cuts.
11. Point-to-point wiring diagrams.
12. Manufacturer's technical data and installation instructions for electronic hardware.

B. Bid and submit manufacturer's updated/improved item if scheduled item is discontinued.

C. Deviations**:** Highlight, encircle or otherwise identify deviations from "Schedule of Finish Hardware" on submittal with notations clearly designating those portions as deviating from this section.

D. If discrepancy between drawings and scheduled material in this section, bid the more expensive of the two choices, note the discrepancy in the submittal and request direction from Architect for resolution.

E. Substitutions per Division 1. Include product data and indicate benefit to the Project. Furnish operating samples on request.

F. Furnish as-built/as-installed schedule with closeout documents, including keying schedule, riser and point-to-point wiring diagrams, manufacturers' installation, adjustment and maintenance information, and supplier's final inspection report.

1.4 QUALITY ASSURANCE**:**

A. Qualifications**:**

1. Hardware supplier**:** direct factory contract supplier who employs a certified architectural hardware consultant (AHC), available at reasonable times during course of work for project hardware consultation to Owner, Architect and Contractor.

    a) Responsible for detailing, scheduling and ordering of finish hardware. Detailing implies that the submitted schedule of hardware is correct and complete for the intended function and performance of the openings.

B. Hardware**:** Free of defects, blemishes and excessive play. Obtain each kind of hardware (latch and locksets, exit devices, hinges and closers) from one manufacturer.

C. Exit Doors**:** Operable from inside with single motion without the use of a key or special knowledge or effort.

D. Fire-Rated Openings**:** NFPA 80 compliant. Hardware UL10C (positive pressure) compliant for given type/size opening and degree of label. Provide proper latching hardware, non-flaming door closers, approved-bearing hinges, and resilient seals. Coordinate with wood door section for required intumescent seals. Furnish openings complete.

E. Furnish hardware items required to complete the work in accordance with specified performance level and design intent, complying with manufacturers' instructions and code requirements.

1.5 DELIVERY, STORAGE AND HANDLING**:**

A. Delivery**:** coordinate delivery to appropriate locations (shop or field).

1. Permanent keys and cores**:** secured delivery direct to Owner's representative.

B. Acceptance at Site**:** Items individually packaged in manufacturers' original containers, complete with proper fasteners and related pieces. Clearly mark packages to indicate contents, locations in hardware schedule and door numbers.

C. Storage**:** Provide securely locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, dust, excessive heat and cold, etc.

1.6 PROJECT CONDITIONS AND COORDINATION**:**

A. Where exact types of hardware specified are not adaptable to finished shape or size of members requiring hardware, provide suitable types having as nearly as practical the same operation and quality as type specified, subject to Architect's approval.

B. Coordination**:** Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents. Furnish related trades with the following information**:**

1. Location of embedded and attached items to concrete.
2. Location of wall-mounted hardware, including wall stops.
3. Location of finish floor materials and floor-mounted hardware.

4. At masonry construction, coordinate with the anchoring and hollow metal supplier prior to frame installation by placing a strip of insulation, wood, or foam, on the back of the hollow metal frame behind the rabbet section for continuous hinges, as well as at rim panic hardware strike locations, silencers, coordinators, and door closer arm locations. When the frame is grouted in place, the backing will allow drilling and tapping without dulling or breaking the installer's bits.
5. Locations for conduit and raceways as needed for electrical, electronic and electro-pneumatic hardware items. Fire/life-safety system interfacing. Point-to-point wiring diagrams plus riser diagrams to related trades.
6. Coordinate: flush top rails of doors at outswinging exteriors, and throughout where adhesive-mounted seals occur.
7. Manufacturers' templates to door and frame fabricators.

C. Check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation.

D. Environmental considerations**:** segregate unused recyclable paper and paper product packaging, uninstalled metals, and plastics, and have these sent to a recycling center.

1.7 WARRANTY**:**

A. Part of respective manufacturers' regular terms of sale. Provide manufacturers' written warranties.

B. Include factory order numbers with close-out documents warranty information:

C. Minimum warranties:

1.	Locksets**:**	Three years
2.	Extra Heavy Duty Cylindrical Lock:	Seven Years
3.	Exit Devices**:**	Three years mechanical One year electrical
4.	Closers**:**	Thirty years mechanical Two years electrical
5.	Hinges**:**	One year
6.	Other Hardware	Two years

1.8 COMMISSIONING**:**

A. Conduct these tests prior to request for certificate of substantial completion**:**

1. With installer present, test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.
2. With installer, access control contractor and electrical contractor present, test electrical, electronic and electro-pneumatic hardware systems for satisfactory operation.
3. With installer and electrical contractor present, test hardware interfaced with fire/life-safety system for proper operation and release.

PART 2 PRODUCTS

2.1 MANUFACTURERS:

A. Manufacturers and their abbreviations used in this schedule:

GLY	Glynn-Johnson Hardware
IVE	H. B. Ives
LCN	LCN Closers
SCH	Schlage Lock Company
VON	Von Duprin
ZER	Zero International

2.2 HINGING METHODS:

A. Drawings typically depict doors at 90 degrees, doors will actually swing to maximum allowable. Use wide-throw conventional or continuous hinges as needed up to 8 inches in width to allow door to stand parallel to wall for true 180-degree opening. Advise architect if 8-inch width is insufficient.

B. Doors 3'6" or wider use 5" X 41/2" heavy weight hinges

C. Doors 8'0" use 4 hinges and add 1 hinge for every foot thereafter

D. Conform to manufacturer's published hinge selection standard for door dimensions, weight and frequency, and to hinge selection as scheduled. Where manufacturer's standard exceeds the scheduled product, furnish the heavier of the two choices, notify Architect of deviation from scheduled hardware.

E. Conventional Hinges: Steel or stainless steel pins and approved bearings. Hinge open widths minimum, but of sufficient throw to permit maximum door swing.

1. Outswinging exterior doors: stainless steel hinges with non-removable (NRP) pins and security studs.
2. Stainless steel material exteriors and at doors subject to corrosive atmospheric conditions.

2.3 LOCKSETS, LATCHSETS, DEADBOLTS:

A. Mortise Locksets and Latchsets: as scheduled.

1. Chassis: cold-rolled steel, handing field-changeable without disassembly.
2. Universal lock case – 10 functions in one case.
3. Floating mounting tabs automatically adjusts to fit a beveled door edge.
4. Latchbolts: 0.75 inch throw stainless steel anti-friction type.
5. Lever Trim: through-bolted, accessible design, cast lever or solid extruded bar type levers as scheduled. Filled hollow tube design unacceptable.
    a) Spindles: security design independent breakaway. Breakage of outside lever does not allow access to inside lever's hubworks to gain wrongful entry.
    b) Inside lever applied by screwless shank mounting – no exposed trim mount screws.
    c) Levers rotate up or down for ease of use.
6. Furnish solid cylinder collars with wave springs. Wall of collar to cover rim of mortise cylinder.

7. Turnpieces**:** accessible offset turn-lever design not requiring pinching or twisting motions to operate.
8. Deadbolts**:** stainless steel 1-inch throw.
9. Electric operation**:** Manufacturer-installed continuous duty solenoid.
10. Strikes**:** 16 gage curved steel, bronze or brass with 1 inch deep box construction, lips of sufficient length to clear trim and protect clothing.
11. Scheduled Lock Series and Design**:** Schlage L series, Design to be 06
12. Certifications**:**

    a) ANSI A156.13, 1994, Grade 1 Operational,
    b) ANSI/ASTM F476-84 Grade 31 UL Listed.

13. Accessibility: Require not more than 5 lb to retract the latchbolt or deadbolt, or both, per CBC 2022 11B-404.2.7 and 11B-309.4.

2.6 CLOSERS

B. Surface Closers**:** 4040-XP

1. Full rack-and-pinion type cylinder with removable non-ferrous cover and cast iron body. Double heat-treated pinion shaft, single piece forged piston, chrome-silicon steel spring.
2. ISO 2000 certified. Units stamped with date-of-manufacture code.
3. Independent lab-tested 10,000,000 cycles.
4. Non-sized, non-handed, and adjustable. Place closer inside building, stairs, and rooms.
5. Plates, brackets and special templating when needed for interface with particular header, door and wall conditions and neighboring hardware.
6. Adjust doors to open with not more than 5.0-pounds pressure to open at exterior doors and 5.0-pounds at interior doors. As allowed per 2016 California Building Code Section 11B-404.2.9, local authority may increase the allowable pressure for fire doors to achieve positive latching, but not to exceed 15-pounds.

    a) Exception: exterior doors' pressure-to-open may be increased to 8.5-pounds if: at a single location, and one of a bank of eight leafs or fraction of eight, and one leaf of this bank is fitted with a low- or high-energy operator.

7. Separate adjusting valves for closing speed, latching speed and backcheck, fourth valve for delayed action where scheduled.
8. Extra-duty arms (EDA) at exterior doors scheduled with parallel arm units.
9. Exterior door closers**:** tested to 100 hours of ASTM B117 salt spray test, furnish data on request.
10. Exterior doors**:** seasonal adjustments not required for temperatures from 120 degrees F to -30 degrees F, furnish checking fluid data on request.
11. Non-flaming fluid, will not fuel door or floor covering fires.
12. Pressure Relief Valves (PRV) not permitted.

2.7 OTHER HARDWARE

A. Automatic Flush Bolts**:** Low operating force design.

B. Overhead Stops**:** Non-plastic mechanisms and finished metal end caps. Field-changeable hold-open, friction and stop-only functions.

C. Kick Plates**:** Four beveled edges, .050 inches minimum thickness, height and width as scheduled. Sheet-metal screws of bronze or stainless steel to match other hardware.

D. Door Stops**:** Provide stops to protect walls, casework or other hardware.

1. Unless otherwise noted in Hardware Sets, provide floor type with appropriate fasteners. Where floor type cannot be used, provide wall type. If neither can be used, provide overhead type.
2. Locate overhead stops for maximum possible opening. Consult with Owner for furniture locations. Minimum**:** 90deg stop / 95deg deadstop. Note degree of opening in submittal.

E. Automatic door bottoms**:** low operating force units.

1. Include automatic type door bottoms, as opposed to fixed sweeps, at stairs and elevator lobbies to allow fine-tuning of pressurization systems.

F. Thresholds**:** As scheduled and per details. Comply with CBC 2022 11B-404.2.5. Substitute products**:** certify that the products equal or exceed specified material's thickness. Proposed substitutions**:** submit for approval.

1. Saddle thresholds**:** 0.125 inches minimum thickness.
2. Exteriors**:** Seal perimeter to exclude water and vermin. Use sealant complying with requirements in Division 7 "Thermal and Moisture Protection". Minimum 0.25 inch diameter fasteners and lead expansion shield anchors, or Red-Head #SFS-1420 (or approved equivalent) Flat Head Sleeve Anchors. National Guard Products' "COMBO" or Pemko Manufacturing's "FHSL".
3. Fire-rated openings, 90-minutes or less duration**:** use thresholds to interrupt floor covering material under the door where that material has a critical radiant flux value less than 0.22 watts per square centimeter, per NFPA 253. Use threshold unit as scheduled. If none scheduled, include a 0.25in high 5in wide saddle in the bid, and request direction from Architect.
4. Fire-rated openings, 3-hour duration**:** Thresholds, where scheduled, to extend full jamb depth.
5. Acoustic openings**:** Set units in full bed of Division-7-compliant, leave no air space between threshold and substrate.
6. Plastic plugs with wood or sheet metal screws are not an acceptable substitute for specified fastening methods.
7. Fasteners**:** Generally, exposed screws to be Phillips or Robertson drive. Pinned TORX drive at high security areas. Flat head sleeve anchors (FHSL) may be slotted drive. Sheet metal and wood screws**:** full-thread. Sleeve nuts**:** full length to prevent door compression.

G. Through-bolts**:** Do not use. Coordinate with wood doors; ensure provision of proper blocking to support wood screws for mounting panic hardware and door closers. Coordinate with metal doors and frames; ensure provision of proper reinforcement to support machine screws for mounting panic hardware and door closers.

1. Exception**:** surface-mounted overhead stops, holders, and friction stays.

H. Silencers**:** Interior hollow metal frames, 3 for single doors, 4 for pairs of doors. Leave no unfilled/uncovered pre-punched silencer holes. Intent**:** door bears against silencers, seals make minimal contact with minimal compression – only enough to effect a seal. Provide where seals are not used

I. Wall- & Floor-mounted electromagnetic door holders**:** LCN's SEM series or approved equivalent. Incorporate into U.L. listed fire & life-safety system, doors release to allow closure and latching when door's zone is in alarm state. Use minimum projection required to allow door to open as widely as allowed by wall conditions and projection of door hardware.

2.8 FINISH:

1. Generally: BHMA 626 Satin Chromium Areas using BHMA 626: furnish push-plates, pulls and protection plates of BHMA 630, Satin Stainless Steel, unless otherwise scheduled.

J. Door closers: factory powder coated to match other hardware, unless otherwise noted.

2.9 KEYING REQUIREMENTS:

A. KEYING REQUIREMENTS:

B. Key System: Keying, keyways, system secuity etc will be determined at a key meeting with the Contractor and Owner. For estimate use standard cores with the following

C. Keys

1. Factory registered master key system
2. Non-I.C. construction keying: furnish inserted type partial key. At substantial completion, remove inserts in Owner's presence; demonstrate consequent non-operability of construction key. Give all removed inserts and all construction keys to Owner, provide accounting for all the pieces.
3. Temporary cylinders/cores remain supplier's property.
4. Furnish 10 construction keys.
5. Furnish 2 construction insert extractor tool 35-057.

D. Key Cylinders: furnish, 6-pin solid brass construction.

E. Cylinders/Cylinder cores: furnish keyed at factory of lock manufacturer where permanent records are maintained. Locks and cylinders same manufacturer.

F. Permanent keys: furnish secured shipment direct from point of origination to Owner.

6. For estimate: 3 keys per change combination, 5 master keys per group, 5 grand-master keys.
7. For estimate: VKC stamping plus "DO NOT DUPLICATE".

G. Bitting List: furnish secured shipment direct from point of origination to Owner upon completion.

PART 3 - EXECUTION

3.1 ACCEPTABLE INSTALLERS:

A. Can read and understand manufacturers' templates, suppliers' hardware schedule and printed installation instructions. Can readily distinguish drywall screws from manufacturers' furnished fasteners. Available to meet with manufacturers' representatives and related trades to discuss installation of hardware.

3.2 PREPARATION:

A. Ensure that walls and frames are square and plumb before hardware installation. Make corrections before commencing hardware installation. Installation denotes acceptance of wall/frame condition.

B. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.

1. Notify Architect of code conflicts before ordering material.

1. Locate latching hardware between 34 inches to 44 inches above the finished floor, per California Building Code, Section 1010.1.9.2 and 11B-404.2.7.
2. Locate panic hardware between 36 inches to 44 inches above the finished floor.
3. Where new hardware is to be installed near existing doors/hardware scheduled to remain, match locations of existing hardware.

C. Overhead stops**:** before installing, determine proposed locations of furniture items, fixtures, and other items to be protected by the overhead stop's action.

3.3 INSTALLATION

A. Install hardware per manufacturer's instructions and recommendations. Do not install surface-mounted items until finishes have been completed on substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation. Remove and reinstall or replace work deemed defective by Architect.

1. Gaskets**:** install jamb-applied gaskets before closers, overhead stops, rim strikes, etc; fasten hardware over and through these seals. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.
2. When hardware is to be attached to existing metal surface and insufficient reinforcement exists, use RivNuts, NutSerts or similar anchoring device for screws.
3. Use manufacturers' fasteners furnished with hardware items, or submit Request for Substitution with Architect.
4. Replace fasteners damaged by power-driven tools.

B. Locate floor stops no more that 4 inches from walls and not within paths of travel. See paragraph 2.2 regarding hinge widths, door should be well clear of point of wall reveal. Point of door contact no closer to the hinge edge than half the door width. Where situation is questionable or difficult, contact Architect for direction.

C. Core concrete for exterior door stop anchors. Set anchors in approved non-shrink grout.

D. Locate overhead stops for minimum 90 degrees at rest and for maximum allowable degree of swing.

E. Drill pilot holes for fasteners in wood doors and/or frames.

F. Lubricate and adjust existing hardware scheduled to remain. Carefully remove and give to Owner items not scheduled for reuse.

3.4. ADJUSTING

A. Adjust and check for proper operation and function. Replace units, which cannot be adjusted to operate freely and smoothly.

1. Hardware damaged by improper installation or adjustment methods**:** repair or replace to Owner's satisfaction.
2. Adjust doors to fully latch with no more than 1 pound of pressure.

a) Door closer valves: turn valves clockwise until at bottom – do not force. Turn valves back out one and one-half turns and begin adjustment process from that point. Do not force valves beyond three full turns counterclockwise.

3. Adjust delayed-action closers on fire-rated doors to fully close from fully-opened position in no more than 10 seconds.
4. Adjust door closers per 1.9 this section.

B. Fire-rated doors**:**

1. Wood doors**:** adjust to 0.125 inches clearance at heads, jambs, and meeting stiles.
2. Steel doors**:** adjust to 0.063 inches minimum to 0.188 inches maximum clearance at heads, jambs, and meeting stiles.
3. Adjust wood and steel doors to 0.75 inches maximum clearance (undercut) above threshold or finish floor material under door.

C. Final inspection**:** Installer to provide letter to Owner that upon completion installer has visited the Project and has accomplished the following**:**

1. Has re-adjusted hardware.
2. Has evaluated maintenance procedures and recommend changes or additions, and instructed Owner's personnel.
3. Has identified items that have deteriorated or failed.
4. Has submitted written report identifying problems.

3.5 DEMONSTRATION**:**

A. Demonstrate mechanical hardware and electrical, electronic and pneumatic hardware systems, including adjustment and maintenance procedures.

3.6 PROTECTION/CLEANING**:**

A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.

B. Clean adjacent wall, frame and door surfaces soiled from installation / reinstallation process.

3.7 SCHEDULE OF FINISH HARDWARE

A. See door schedule in drawings for hardware set assignments.

NOTE: FINISH ON ALL DOOR HARDWARE IS TO BE FACTORY FINISHED BLACK

HW SET: 01

3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	PASSAGE	L9010 06A	626	SCH
1	EA	CLOSER	4040XP	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	DOME STOP	FS436/438 AS REQ'D	626	IVE
3	EA	SILENCER	SR64	GRY	IVE

HW SET: 02

3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY W/INDICATOR	L9440-L583-363-L283-722 06A	626	SCH
1	EA	DOME STOP	FS436/438 AS REQ'D	626	IVE
3	EA	SILENCER	SR64	GRY	IVE

HW SET: 04

3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	OFFICE LOCK	L9050P L583-363 06A	626	SCH
1	EA	CLOSER	4040XP	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	DOME STOP	FS436/438 AS REQ'D	626	IVE
3	EA	SILENCER	SR64	GRY	IVE

HW SET: 10

3	EA	HINGE	3CB1 4.5 X 4.5	630	IVE
1	EA	STOREROOM LOCK	L9080P 06A	626	SCH
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	DOME STOP	FS436/438 AS REQ'D	626	IVE

HW SET: 11

3	EA	HINGE	3CB1 4.5 X 4.5 NRP SEC STUD	630	IVE
1	EA	ENTRANCE LOCK	L9453P-L583-363 06A	626	SCH
1	EA	CLOSER	4040XP EDA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	FLOOR STOP	FS441/442 AS REQUIRED	626	IVE
1	SET	PERIMETER SEALS	328AA HEAD AND JAMBS	AL	ZER
1	EA	DOOR SWEEP	339AA	AL	ZER
1	EA	THRESHOLD	AS DETAILED	AL	ZER

HW SET: 12

6	EA	HINGE	3CB1 4.5 X 4.5 NRP SEC STUD	630	IVE
1	SET	AUTO FLUSH BOLT	FB31/41 AS REQ'D	626	IVE
1	EA	DUST PROOF STRIKE	DP1/2 AS REQ'D	626	IVE
1	EA	STOREROOM LOCK	L9080P 06A	626	SCH
2	EA	OVERHEAD HOLDER	90H	630	GLY
1	SET	PERIMETER SEALS	328AA HEAD AND JAMBS	AL	ZER
2	EA	DOOR SWEEP	339AA	AL	ZER
1	EA	ASTRAGAL	44STST X 188	600	ZER
1	EA	THRESHOLD	AS DETAILED	AL	ZER

HW SET: 13

ALL HARDWARE BY COILING DOOR MANUFACTURER

STEEL DOORS AND HARDWARE (PANDA OR PINKY'S)

PANDA WINDOWS & DOORS

3415 Bellington Rd
N. Las Vegas, NV 89030
+1 (888) 246-1651

San Antonio Water Company Headquarters & Maintenance Building

DETAILS

Item	Location	Product Type	System ID	Frame Dimensions	Qty
1	Conf Rm #101	Lift & Slide	LMT.70	189 14/16" x 95"	1
2	Lobby Rm 100	Hinged Door	FDMT.50	71" x 83"	1
3	Hallway 1 Rm 103	Hinged Door	FDMT.50	35" x 83"	1
4	Hallway Wall Area Rm102	Hinged Door	FDMT.50	35" x 83"	1
5	Breakroom Rm 116	Hinged Door	FDMT.50	35" x 83"	1
6	Rm104 & 109	Hinged Door Fixed	Windowset 1: M.40 Windowset 2: FDM.40	60" x 83"	2
7	Rm 108	Hinged Door	FDM.40	35" x 83"	1
8	Rm105-107	Hinged Door Fixed	Windowset 1: FDM.40 Windowset 2: M.40	60" x 83"	3
9	Lobby	Fixed	MT.50	60" x 96"	1
10	#213	Hinged Door	FDMT.50	35" x 83"	1

PROJECT SUMMARY

Number of Doors

13

Project Type

New Construction

NOTE: All door hardware and hinges included
All door steel frames to accommodate 12" kick plate

San Antonio Water Company
Headquarters & Maintenance Building

PANDA WINDOWS & DOORS
3415 Bellington Rd
N. Las Vegas, NV 89030
+1 (888) 246-1651

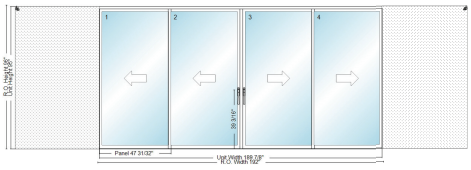
UNIT: 1 QTY: 1

SYSTEM TYPE: Lift & Slide **LOCATION: Conf Rm #101** **SQFT: 125**

System ID: LMT.70
Material: Steel
Installation Location: Exterior
Configuration: 2L-2R, Pocket Unit
Rough Opening: 192 W x 96 H
Frame Dimensions: 189 7/8 W x 95 H
Number of Panels: 4
Panel Dimensions: 47 31/32 W x 93 1/4 H
Color: Jet Black - RAL 9005

Handle: Priamo, Matte Black D100
Handle Height: 39 in
Lock: No Cylinder Lock
Glass Type: Cardinal 366 LowE Tempered (Safety Glass)
Glass Makeup: 1" OA: (1/4"G 1/2"S 1/4"G)
Spacer Color: Black
Glazing: Dry Glazing
Gas Fill: Argon
Glass DLO: 44 15/32 W x 89 1/16 H

View from Exterior



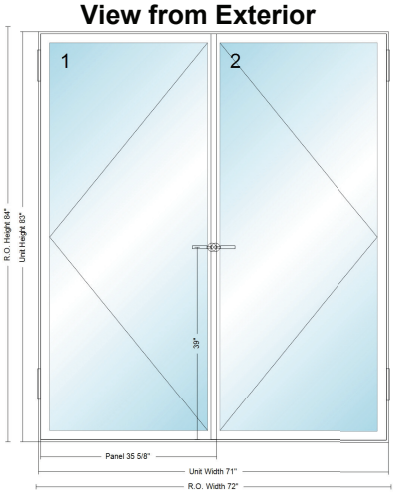
UNIT: 2 QTY: 1

SYSTEM TYPE: Double Hinged Door **LOCATION: Lobby Rm 100** **SQFT: 41**

System ID: FDMT.50
Material: Steel
Installation Location: Exterior
Operation: Outswing
Rough Opening: 72 W x 84 H
Frame Dimensions: 71 W x 83 H
Panel Dimensions: 35 5/8 W x 82 1/8 H
Color: Jet Black - RAL 9005
Handle: Modern Straight Door, Dark Bronze
Handle Height: 39"
Lock: Keylock Exterior/Thumb-Turn Interior

Threshold: 1 9/16" Surface D101
Threshold Color: Finish to Match
Closer: No Closer
Drop Seal: No Drop Seal
Glass Type: Cardinal 366 LowE Tempered (Safety Glass)
Glass Makeup: 1" OA: (1/4"G 1/2"S 1/4"G)
Spacer Color: Black
Glazing: Dry Glazing
Gas Fill: Argon
Glass DLO: 31 31/32 W x 78 15/32 H

View from Exterior



San Antonio Water Company
Headquarters & Maintenance Building

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UNIT: 3 QTY: 1

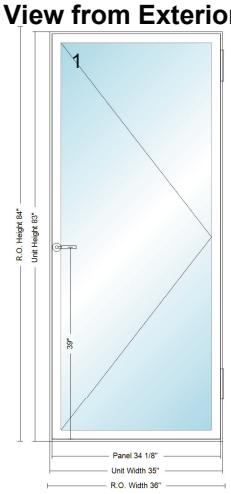
SYSTEM TYPE: Single Hinged Door **LOCATION: Hallway 1 Rm 103** **SQFT: 20**

D119

System ID: FDMT.50
Material: Steel
Installation Location: Exterior
Operation: Right Outswing
Rough Opening: 36 W x 84 H
Frame Dimensions: 35 W x 83 H
Panel Dimensions: 34 1/8 W x 82 1/8 H
Color: Jet Black - RAL 9005
Handle: Modern Straight Door, Dark Bronze
Handle Height: 39"
Lock: Keylock Exterior/Thumb-Turn Interior

Threshold: 1 9/16" Surface
Threshold Color: Finish to Match
Closer: No Closer
Drop Seal: No Drop Seal
Glass Type: Cardinal 366 LowE Tempered (Safety Glass)
Glass Makeup: 1" OA: (1/4"G 1/2"S 1/4"G)
Spacer Color: Black
Glazing: Dry Glazing
Gas Fill: Argon
Glass DLO: 30 1/2 W x 78 15/32 H

View from Exterior



UNIT: 4 QTY: 1

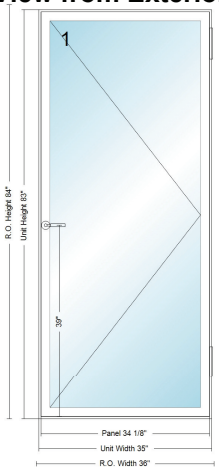
SYSTEM TYPE: Single Hinged Door **LOCATION: Hallway Wall Area Rm102** **SQFT: 20**

D104

System ID: FDMT.50
Material: Steel
Installation Location: Exterior
Operation: Right Outswing
Rough Opening: 36 W x 84 H
Frame Dimensions: 35 W x 83 H
Panel Dimensions: 34 1/8 W x 82 1/8 H
Color: Jet Black - RAL 9005
Handle: Modern Straight Door, Dark Bronze
Handle Height: 39"
Lock: Keylock Exterior/Thumb-Turn Interior

Threshold: 1 9/16" Surface
Threshold Color: Finish to Match
Closer: No Closer
Drop Seal: No Drop Seal
Glass Type: Cardinal 366 LowE Tempered (Safety Glass)
Glass Makeup: 1" OA: (1/4"G 1/2"S 1/4"G)
Spacer Color: Black
Glazing: Dry Glazing
Gas Fill: Argon
Glass DLO: 30 1/2 W x 78 15/32 H

View from Exterior



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UNIT: 5 QTY: 1

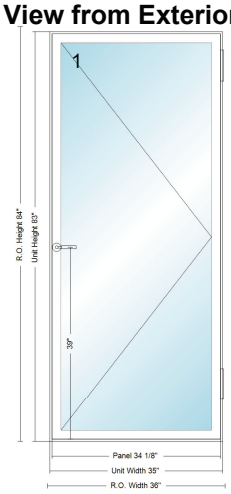
SYSTEM TYPE: Single Hinged Door **LOCATION: Breakroom Rm 116** **SQFT: 20**

D112

System ID: FDMT.50
Material: Steel
Installation Location: Exterior
Operation: Right Outswing
Rough Opening: 36 W x 84 H
Frame Dimensions: 35 W x 83 H
Panel Dimensions: 34 1/8 W x 82 1/8 H
Color: Jet Black - RAL 9005
Handle: Modern Straight Door, Dark Bronze
Handle Height: 39"
Lock: Keylock Exterior/Thumb-Turn Interior

Threshold: 1 9/16" Surface
Threshold Color: Finish to Match
Closer: No Closer
Drop Seal: No Drop Seal
Glass Type: Cardinal 366 LowE Tempered (Safety Glass)
Glass Makeup: 1" OA: (1/4"G 1/2"S 1/4"G)
Spacer Color: Black
Glazing: Dry Glazing
Gas Fill: Argon
Glass DLO: 30 1/2 W x 78 15/32 H

View from Exterior



UNIT: 6 QTY: 2

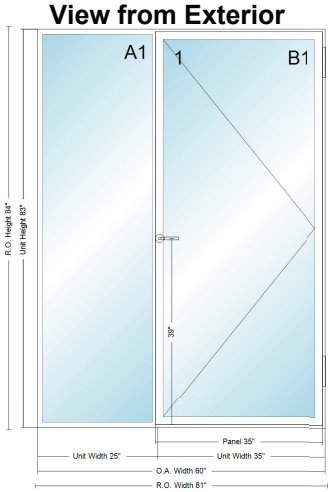
SYSTEM TYPE: **LOCATION: Rm104 & 109** **SQFT: 69**

D113, D118

System ID: M.40, FDM.40
A1: Type: Direct Set Window
B1: Type: Single Hinged Door
Material: Steel
A1: Operation: Fixed
B1: Operation: Right Outswing
Rough Opening: 61 W x 84 H
Frame Dimensions: 60 W x 83 H
Panel Dimensions: 35 W x 81 29/32 H
Color: Jet Black - RAL 9005
Handle: Modern Straight Door, Dark Bronze
Handle Height: 39"
Lock: Keylock Exterior/Thumb-Turn Interior

Threshold: 1 9/16" Surface
Threshold Color: Finish to Match
Closer: No Closer
Drop Seal: No Drop Seal
Nail Fin: No
Glass Type: Clear Tempered (Safety Glass)
Glass Makeup: 1" OA: (1/4"G 1/2"S 1/4"G)
Spacer Color: Black
Glazing: Dry Glazing
Gas Fill: Argon
A1 Glass: Glass DLO: 22 13/16 W x 80 7/8 H
B1 Panel 1 Glass: Glass DLO: 31 23/32 W x 78 5/8 H

View from Exterior



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UNIT: 7 QTY: 1

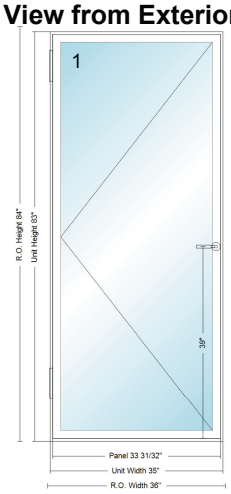
SYSTEM TYPE: Single Hinged Door **LOCATION: Rm 108** **SQFT: 20**

D117

System ID: FDM.40
Material: Steel
Operation: Left Inswing
Rough Opening: 36 W x 84 H
Frame Dimensions: 35 W x 83 H
Panel Dimensions: 33 31/32 W x 81 29/32 H
Color: Jet Black - RAL 9005
Handle: Modern Straight Door, Dark Bronze
Handle Height: 39"
Lock: Keylock Exterior/Thumb-Turn Interior

Threshold: 1 9/16" Surface
Threshold Color: Finish to Match
Closer: No Closer
Drop Seal: No Drop Seal
Glass Type: Clear Tempered (Safety Glass)
Glass Makeup: 1" OA: (1/4"G 1/2"S 1/4"G)
Spacer Color: Black
Glazing: Dry Glazing
Gas Fill: Argon
Glass DLO: 30 11/16 W x 78 5/8 H

View from Exterior



UNIT: 8 QTY: 3

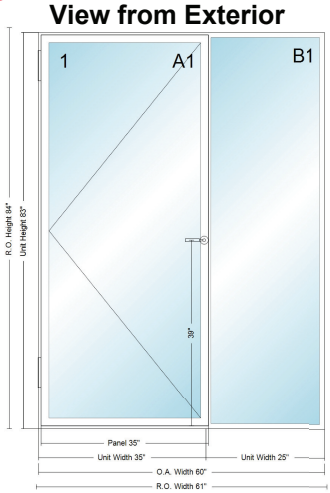
SYSTEM TYPE: **LOCATION: Rm105-107** **SQFT: 104**

D114, D115, D116

System ID: FDM.40, M.40
A1: Type: Single Hinged Door
B1: Type: Direct Set Window
Material: Steel
A1: Operation: Left Inswing
B1: Operation: Fixed
Rough Opening: 61 W x 84 H
Frame Dimensions: 60 W x 83 H
Panel Dimensions: 35 W x 81 29/32 H
Color: Jet Black - RAL 9005
Handle: Modern Straight Door, Dark Bronze
Handle Height: 39"
Lock: Keylock Exterior/Thumb-Turn Interior

Threshold: 1 9/16" Surface
Threshold Color: Finish to Match
Closer: No Closer
Drop Seal: No Drop Seal
Nail Fin: No
Glass Type: Clear Tempered (Safety Glass)
Glass Makeup: 1" OA: (1/4"G 1/2"S 1/4"G)
Spacer Color: Black
Glazing: Dry Glazing
Gas Fill: Argon
A1 Panel 1 Glass: Glass DLO: 31 23/32 W x 78 5/8 H
B1 Glass: Glass DLO: 22 7/8 W x 80 7/8 H

View from Exterior



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UNIT: 21 **QTY: 1**

SYSTEM TYPE: Single Hinged Door **LOCATION: #213** **SQFT: 20**

D213

System ID: FDMT.50

Material: Steel

Installation Location: Exterior

Operation: Right Outswing

Rough Opening: 36 W x 84 H

Frame Dimensions: 35 W x 83 H

Panel Dimensions: 34 1/8 W x 82 1/8 H

Color: Jet Black - RAL 9005

Handle: Modern Straight Door, Dark Bronze

Handle Height: 39"

Lock: Keylock Exterior/Thumb-Turn Interior

Threshold: 1 9/16" Surface

Threshold Color: Finish to Match

Closer: No Closer

Drop Seal: No Drop Seal

Glass Type: Cardinal 366 LowE Tempered (Safety Glass)

Glass Makeup: 1" OA: (1/4"G 1/2"S 1/4"G)

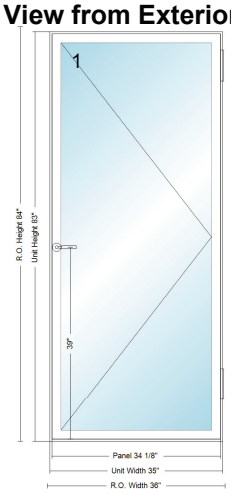
Spacer Color: Black

Glazing: Dry Glazing

Gas Fill: Argon

Glass DLO: 30 1/2 W x 78 15/32 H

View from Exterior



END OF SECTION