

DIVISION 08 – OPENINGS (Rev 11-09-2018)

08 00 00 Openings

08 01 00 Operation and Maintenance of Openings

- 08 01 10 Operation and Maintenance of Doors and Frames
- 08 01 11 Operation and Maintenance of Metal Doors and Frames
- 08 01 14 Operation and Maintenance of Wood Doors
- 08 01 15 Operation and Maintenance of Plastic Doors
- 08 01 16 Operation and Maintenance of Composite Doors
- 08 01 17 Operation and Maintenance of Integrated Door Opening Assemblies
- 08 01 30 Operation and Maintenance of Specialty Doors and Frames
- 08 01 32 Operation and Maintenance of Sliding Glass Doors
- 08 01 33 Operation and Maintenance of Coiling Doors and Grilles
- 08 01 34 Operation and Maintenance of Special Function Doors
- 08 01 35 Operation and Maintenance of Folding Doors and Grilles
- 08 01 36 Operation and Maintenance of Panel Doors
- 08 01 39 Operation and Maintenance of Traffic Doors
- 08 01 40 Operation and Maintenance of Entrances, Storefronts, and Curtain Walls
- 08 01 41 Operation and Maintenance of Entrances
- 08 01 42 Operation and Maintenance of Storefronts
- 08 01 44 Operation and Maintenance of Curtain Walls
- 08 01 50 Operation and Maintenance of Windows
- 08 01 51 Operation and Maintenance of Metal Windows
- 08 01 52 Operation and Maintenance of Wood Windows
 - 08 01 52.61 Wood Window Repairs
 - 08 01 52.71 Wood Window Rehabilitation
 - 08 01 52.81 Wood Window Replacement
 - 08 01 52.91 Wood Window Restoration
 - 08 01 52.93 Historic Treatment of Wood Windows
- 08 01 53 Operation and Maintenance of Plastic Windows
- 08 01 54 Operation and Maintenance of Composite Windows
- 08 01 56 Operation and Maintenance of Special Function Windows
- 08 01 60 Operation and Maintenance of Skylights and Roof Windows
- 08 01 61 Operation and Maintenance of Roof Windows
- 08 01 62 Operation and Maintenance of Unit Skylights
- 08 01 63 Operation and Maintenance of Metal –Framed Skylights
- 08 01 64 Operation and Maintenance of Plastic-Framed Skylights
- 08 01 70 Operation and Maintenance of Hardware
- 08 01 71 Operation and Maintenance of Door Hardware
- 08 01 74 Operation and Maintenance of Access Control Hardware
- 08 01 75 Operation and Maintenance of Window Hardware
- 08 01 80 Maintenance of Glazing
- 08 01 81 Maintenance of Glass Glazing
- 08 01 84 Maintenance of Plastic Glazing
- 08 01 88 Maintenance of Special Function Glazing

08 01 90 Operation and Maintenance of Louvers and Vents
08 01 91 Operation and Maintenance of Louvers
08 01 92 Operation and Maintenance of Louvers Equipment Enclosures
08 01 95 Operation and Maintenance of Vents

08 05 00 Common Work Results for Openings

08 06 00 Schedules for Openings

08 06 10 Door Schedule

CONSULTANT DESIGN GUIDELINE

It is the desire of the University that all doors to be at least 3-0 x 7-0 if design considerations allow it.

Mullions, where utilized on exterior doors, shall be removable.

08 06 10.13 Door Type Schedule
08 06 10.16 Frame Type Schedule
08 06 40 Schedules for Entrances, Storefronts, and Curtain Walls
08 06 41 Entrance Schedule
08 06 42 Storefront Schedule
08 06 50 Window Schedule

08 06 60 Skylight Schedule
08 06 70 Hardware Schedule

08 06 71 Door Hardware Schedule

CONSULTANT DESIGN GUIDELINE

All door hardware to be ADA compliant

08 06 80 Glazing Schedule

CONSULTANT DESIGN GUIDELINE

Double glazed – 1” insulating glass

08 06 90 Louver and Vent Schedule

08 08 00 Commissioning of Openings

SECTION 08 10 00 DOORS AND FRAMES

08 11 00 Metal Doors and Frames

SECTION 08 11 13

HOLLOW METAL DOORS AND FRAMES

CONSULTANT DESIGN GUIDELINE

Metal Frames. Provide metal frames with wrought box, strike cover and hinge reinforcement covers. Fabricate hinge reinforcement from plate stock (1/4" x 9") or (3/16" x 9") C1018 steel 160-scale Brinell hardness. Detail reinforcement to be securely attached to the frame with a minimum of four contacts each side of opening.

Hollow metal frames shall be minimum 16 Gauge with all visible joints welded and ground smooth.

Anchor all metal doorframes seven (7) feet or less to masonry or concrete wall with a minimum of three (3) jamb anchors. Doors over seven (7) feet shall have a minimum of four (4) jamb anchors.

Holdings And Closers. Detail reinforcing for holders and closers to be a box type or double channel of not less than 10 gauge steel for three-bolt attachment. Reinforcing for field attachment of corner brackets is to be not less than eight (8) gauge steel.

Mullions. All interior and exterior double doors shall have keyed removable mullions.

Metal Doors. Prep all metal doors not requiring exit devices for full mortise locksets.

INCLUDE IN CONSTRUCTION DOCUMENTS

Metal Frames. Slush all metal frames in masonry walls full of mortar as adjacent masonry walls are laid.

END SECTION

08 11 13.13 Standard Hollow Metal Doors and Frames

08 11 13.16 Custom Hollow Metal Doors and Frames

SECTION 08 11 16
ALUMINUM DOORS AND FRAMES

CONSULTANT DESIGN GUIDELINE

Aluminum Storefronts. Aluminum entrance and storefront system members shall not be less than 3 1/2" deep. Provide all frames scheduled to receive closers or holders with head bar for attaching hardware.

Aluminum Storefront Doors. All aluminum storefront doors shall be medium or wide stile doors. All aluminum storefront doors shall have butt hinges. Do not allow pivot hinges.

END SECTION

- 08 11 19 Stainless-Steel Doors and Frames
- 08 11 23 Bronze Doors and Frames
- 08 11 63 Metal Screen and Storm Doors and Frames
 - 08 11 63.13 Steel Screen and Storm Doors and Frames
 - 08 11 63.23 Aluminum Screen and Storm Doors and Frames
- 08 11 66 Metal Screen Doors and Frames
 - 08 11 66.13 Steel Screen Doors and Frames
 - 08 11 66.23 Aluminum Screen Doors and Frames
- 08 11 69 Metal Storm Doors and Frames
 - 08 11 69.13 Steel Storm Doors and Frames
 - 08 11 69.23 Aluminum Storm Doors and Frames
- 08 11 73 Sliding Metal Firedoors
- 08 11 74 Sliding Metal Grilles

08 12 00 Metal Frames

- 08 12 13 Hollow Metal Frames
 - 08 12 13.13 Standard Hollow Metal Frames
 - 08 12 13.53 Custom Hollow Metal Doors and Frames
- 08 12 16 Aluminum Frames
- 08 12 19 Stainless-Steel Frames
- 08 12 23 Bronze Frames

08 13 00 Metal Doors

- 08 13 13 Hollow Metal Doors
 - 08 13 13.13 Standard Hollow Metal Doors
 - 08 13 13.53 Custom Hollow Metal Frames
- 08 13 16 Aluminum Doors
- 08 13 19 Stainless-Steel Doors
- 08 13 23 Bronze Doors
- 08 13 73 Sliding Metal Doors
- 08 13 76 Bifolding Metal Doors

08 14 00 Wood Doors

08 14 13 Carved Wood Doors

08 14 16 Flush Wood Doors

08 14 23 Clad Wood Doors

08 14 23.13 Metal-Faced Wood Doors

08 14 23.16 Plastic-Laminate-Faced Wood Doors

08 14 23.19 Molded-Hardboard-Faced Wood Doors

08 15 00 Plastic Doors

08 15 13 Laminated Plastic Doors

08 15 16 Solid Plastic Doors

08 15 66 Plastic Screen Doors

08 15 69 Plastic Storm Doors

08 15 73 Sliding Plastic Doors

08 15 76 Bifolding Plastic Doors

08 16 00 Composite Doors

08 16 13 Fiberglass Doors

08 16 73 Sliding Composite Doors

08 16 76 Bifolding Composite Doors

08 17 00 Integrated Door Opening Assemblies

08 17 13 Integrated Metal Door Opening Assemblies

08 17 23 Integrated Wood Door Opening Assemblies

08 17 33 Integrated Plastic Door Opening Assemblies

08 17 43 Integrated Composite Door Opening Assemblies

08 30 00 SPECIALTY DOORS AND FRAMES

08 31 00 Access Doors and Panels

08 31 13 Access Doors and Frames

08 31 13.53 Security Access Doors and Frames

08 31 16 Access Panels and Frames

08 32 00 Sliding Glass Doors

08 32 13 Sliding Aluminum-Framed Glass Doors

08 32 16 Sliding Plastic-Framed Glass Doors

08 32 19 Sliding Wood-framed Glass Doors

08 33 00 Coiling Doors and Grilles

08 33 13 Coiling Counter Doors

08 33 16 Counter Grilles

08 33 23 Overhead Coiling Doors

08 33 26 Overhead Coiling Grilles

08 33 33 Side Coiling Doors

08 33 36 Side Coiling Grilles

08 34 00 Special Function Doors

- 08 34 13 Cold Storage Doors
- 08 34 16 Hangar Doors
- 08 34 19 Industrial Doors
- 08 34 33 Lightproof Doors
- 08 34 36 Darkroom Doors
- 08 34 46 Radio-Frequency-Interference Shielding Doors
- 08 34 49 Radiation Shielding Doors and Frames
 - 08 34 49.13 Neutron Shielding Doors and Frames
- 08 34 53 Security Doors and Frames
- 08 34 56 Security Gates
- 08 34 59 Vault Doors and Day Gates
- 08 34 63 Detention Doors and Frames
 - 08 34 63.13 Steel Detention Doors and Frames
 - 08 34 63.16 Steel Plate Detention Doors and Frames
 - 08 34 63.33 Detention Door Frame Protection
- 08 34 73 Sound Control Door Assemblies

08 35 00 Folding Doors and Grilles

- 08 35 13 Folding Doors
 - 08 35 13.13 Accordion Folding Doors
 - 08 35 13.23 Folding Fire Doors
 - 08 35 13.33 Panel Folding Doors
- 08 35 16 Folding Grilles
 - 08 35 16.13 Accordion Folding Grilles

08 36 00 Panel Doors

- 08 36 13 Sectional Doors
- 08 36 16 Single-Panel Doors
- 08 36 19 Multi-Leaf Vertical Lift Doors
- 08 36 23 Telescoping Vertical Lift Doors

08 38 00 Traffic Doors

- 08 38 13 Flexible Strip Doors
- 08 38 16 Flexible Traffic Doors
- 08 38 19 Rigid Traffic Doors

08 39 00 Pressure-Resistant Doors

- 08 39 13 Airtight Doors
- 08 39 19 Watertight Doors
- 08 39 53 Blast-Resistant Doors

08 40 00 ENTRANCES, STOREFRONTS, AND CURTAIN WALLS

08 41 00 Entrances and Storefronts

- 08 41 13 Aluminum-Framed Entrances and Storefronts
- 08 41 16 Bronze-Framed Entrances and Storefronts
- 08 41 19 Stainless-Steel-Framed Entrances and Storefronts
- 08 41 23 Steel-Framed Entrances and Storefronts
- 08 41 26 All-Glass Entrances and Storefronts

08 42 00 Entrances

- 08 42 26 All-Glass Entrances
- 08 42 29 Automatic Entrances
 - 08 42 29.13 Folding Automatic Entrances
 - 08 42 29.23 Sliding Automatic Entrances
 - 08 42 29.33 Swinging Automatic Entrances
- 08 42 33 Revolving Door Entrances
 - 08 42 33.13 Security Revolving Entrances
- 08 42 36 Balanced Door Entrances
- 08 42 39 Pressure-Resistant Entrances
- 08 42 43 Intensive Care Unit/Critical Care Unit Entrances

08 43 00 Storefronts

- 08 43 13 Aluminum-Framed Storefronts
- 08 43 16 Bronze-Framed Storefronts
- 08 43 19 Stainless-Steel-Framed Storefronts
- 08 43 23 Steel-Framed Storefronts
- 08 43 26 All-Glass Storefronts
- 08 43 29 Sliding Storefronts

08 44 00 Curtain Wall and Glazed Assemblies

- 08 44 13 Glazed Aluminum Curtain Walls
- 08 44 16 Glazed Bronze Curtain Walls
- 08 44 19 Glazed Stainless-Steel Curtain Walls
- 08 44 26 Structural Glass Curtain Walls
 - 08 44 26.13 Structural Sealant Glazed Assemblies
- 08 44 33 Sloped Glazing Assemblies

08 45 00 Translucent Wall and Roof Assemblies

- 08 45 13 Structured-Polycarbonate-Panel Assemblies
- 08 45 23 Fiberglass-Sandwich –Panel Assemblies

08 50 00 WINDOWS

CONSULTANT DESIGN GUIDELINE

Operable windows (awning, sliding, or casement) to be utilized in appropriate locations.

08 51 00 Metal Windows

- 08 51 13 Aluminum Windows
- 08 51 16 Bronze Windows
- 08 51 19 Stainless-Steel Windows
- 08 51 23 Steel Windows
- 08 51 66 Metal Window Screens
- 08 51 69 Metal Storm Windows

08 52 00 Wood Windows

- 08 52 13 Metal-Clad Wood Windows
- 08 52 16 Plastic-Clad Wood Windows
- 08 52 66 Wood Window Screens
- 08 52 69 Wood Storm Windows

08 53 00 Plastic Windows

- 08 53 13 Vinyl Windows
- 08 53 66 Vinyl Window Screens
- 08 53 69 Vinyl Storm Windows

08 54 00 Composite Windows

- 08 54 13 Fiberglass Windows
- 08 54 66 Fiberglass Window Screens
- 08 54 69 Vinyl Storm Windows

08 55 00 Pressure-Resistant Windows

08 56 00 Special Function Windows

- 08 56 19 Pass Windows
- 08 56 46 Radio-Frequency-Interference Shielding Windows
- 08 56 49 Radiation Shielding Windows
- 08 56 53 Security Windows
- 08 56 56 Security Window Screens
- 08 56 59 Service and Teller Window Units
- 08 56 63 Detention Windows
- 08 56 66 Detention Window Screens
- 08 56 73 Sound Control Windows

08 60 00 ROOF WINDOWS AND SKYLIGHTS

08 61 00 Roof Windows

- 08 61 13 Metal Roof Windows
- 08 61 16 Wood Roof Windows

08 62 00 Unit Skylights

- 08 62 13 Domed Unit Skylights
- 08 62 16 Pyramidal Unit Skylights
- 08 62 19 Vaulted Unit Skylights

08 63 00 Metal-Framed Skylights

- 08 63 13 Domed Metal-Framed Skylights
- 08 63 16 Pyramidal Metal-Framed Skylights
- 08 63 19 Vaulted Metal-framed Skylights
- 08 63 23 Ridge Metal-Framed Skylights
- 08 63 53 Motorized Metal-Framed Skylights

08 64 00 Plastic-Framed Skylights

08 67 00 Skylight Protection and Screens

08 70 00 Hardware (Rev 11-09-2018)

SECTION 08 71 00

DOOR HARDWARE (Revised 11-09-2018)

CONSULTANT DESIGN GUIDELINE

Submit all finish hardware selections to Facilities Management for approval.

This standard does not apply to University Housing projects.

“Approved by the University” means written approval by the FAMA Director, Engineering & Construction or, FAMA Director, Operations & Maintenance / Environmental Health & Safety

Locking/Access Configurations:

All doors shall have either:

- Corbin-Russwin ML 2000 Series with mortise lock cylinders,
- Von Duprin Series 99NL,
- Magnetic locking devices approved by the University,
- Keypad or card reader system with electric lock / electric strike devices approved by the University or,
- Double doors with a center mullion shall use a keyed removable mullion with a Von Duprin 99NL Series exit device.

Any door that does not use the Corbin-Russwin ML 2000 Series must have a key bypass feature.

Floor closers or overhead concealed closers shall not be used on any door.

Concealed vertical rod or vertical surface mounted “panic” devices shall not be used on any door.

Keyways:

- All key systems for new construction and renovation shall be IC core Corbin-Russwin, Pyramid.

Key Schedules:

- Obtain a key schedule from the University and prepare and submit a project key schedule to the University for approval.

Closer Configurations:

- LCN 4041 Super Smoothee, surface mount or equivalent as approved by the University.

Hinges:

- Exterior Doors: Must be configured with non-removable hinge pins or equivalent approved by the University.
- Secure/Sensitive/Restricted Rooms: Must be configured with non-removable hinge pins or equivalent approved by the University.

Security During Construction:

For any non-restricted space/room(s) vacated entirely for construction or renovation, the key lock cylinders shall be removed by the University and it shall be the contractor's responsibility to provide appropriate security for the space/room(s). If the contractor chooses to install temporary key cylinders, they must be compatible with the existing or new door lock.

Keys:

Stamp key bows with applicable change key room number as directed by the University and with "UARK Do Not Duplicate".

Key quantities shall be determined by the University based on the project.

Deliver keys by registered or certified mail to:

Lock Shop
University of Arkansas Facilities Management
521 S. Razorback Rd.
Fayetteville, AR 72701

End Section

08 71 13 Automatic Door Operators
08 71 53 Security Door Hardware
08 71 63 Detention Door Hardware

SECTION 08 74 00
ACCESS CONTROL HARDWARE

CONSULTANT DESIGN GUIDELINE

Access control hardware has an IDIQ contract (see attachment) that specifies the facility commander system. No other access control hardware will be acceptable.

EXECUTION

Installation Guidelines:

Install card access on auditorium if the doors also have key access and the ability to disable the access control system.

Install Corbin Russwin Access 800 Keypads on all Laboratory and Classroom doors.

The access control equipment is considered the property of the installing department or college. Maintenance of these systems will be the sole responsibility of the installing department.

Install systems on exterior doors of a building only after review by Department of Public Safety and Facilities Management. Maintain fire egress. A system of control and reporting of who has card access to a building, for those buildings controlled by Facilities Management, must be worked out between the department and Facilities Management before the installation of an access control system.

Do not install access control systems on mechanical or custodial rooms, restrooms, service areas, or roof access without the approval of Facilities Management.

Any room or building with an access control system, and where the key lock is no longer functional, must have at least one door that is accessible with a building master key.

Guarantee the integrity of the fire system by providing a delay in the access control system that will break the circuit controlling the locking system whenever there is a fire signal.

END SECTION

08 74 13 Card Key Access Control Hardware
08 74 16 Keypad Access Control Hardware
08 74 19 Biometric Identity Access Control Hardware

08 75 00 Window Hardware

08 75 13 Automatic Window Equipment
08 75 16 Window Operators

SECTION 08 78 00
SPECIAL FUNCTION HARDWARE
08 79 00 Hardware Accessories
08 79 13 Key Storage Equipment

08 80 00 GLAZING

SECTION 08 81 00
GLASS GLAZING

CONSULTANT DESIGN GUIDELINE

Specify all windows to have dual pane glass with low emissive coatings on third surface. Furnish metal windows with thermal break. All classroom windows, unless otherwise advised by Facilities Management, shall be equipped with audio-visual blinds or other approved window coverings.

Maximum transmission allowable to meet Arkansas Energy Code.No reflective glass.

END SECTION

08 81 13 Decorative Glass Glazing

08 83 00 Mirroring
08 83 13 Mirrored Glass Glazing
08 83 16 Mirrored Plastic Glazing

08 84 00 Plastic Glazing
08 84 13 Decorative Plastic Glazing

08 85 00 Glazing Accessories

08 87 00 Glazing Surface Films
08 87 13 Solar Control Films
08 87 16 Safety Films
08 87 53 Security Films

08 88 00 Special Function Glazing
08 88 19 Hurricane-Resistant Glazing
08 88 23 Cable Suspended Glazing
08 88 33 Transparent Mirrored Glazing
08 88 39 Pressure-Resistant Glazing
08 88 49 Radiation-Resistant Glazing
08 88 53 Security Glazing
08 88 56 Ballistics-Resistant Glazing

08 90 00 LOUVERS AND VENTS

08 91 00 Louvers

08 91 13 Motorized Wall Louvers

08 91 16 Operable Wall Louvers

08 91 19 Fixed Louvers

08 91 26 Door Louvers

08 92 00 Louvered Equipment Enclosures

08 95 00 Vents

08 95 13 Soffit Vents

08 95 16 Wall Vents

Project Name: UNIVERSITY OF ARKANSAS IDIQ NEW BUILDING
 TRIPLE-S ALARM CO., INC. -----GE EST SUPPLIER

Access Control

DESCRIPTION OF EQUIPMENT	PRICE INSTALLED/per each	total price
M5 Enclosures PXNplus CPU requires Facility Commander Wnx M5 PXNplus, FC Wnx, Secure Perfect - Serial & Ethernet, 10/100Mb	\$1,891.62	\$0.00
M5 & M3000 Reader, Input and Ouput Option Boards 16 Digital Output with relays, 16 -.04A @ 24VDC (max.), Micro/5-All versions	\$531.89	\$0.00
20 Digital Input, 20 supervised points, 1K supervision resistors supplied, Micro/5-All versions	\$531.89	\$0.00
8RP Reader Interface, 12VDC F/2F and Supervised F/2F readers, No provision for REX or Door Status contacts. M/5-all versions, not in combination with 2RP or 2SRP	\$867.63	\$0.00
Power Supply and Battery Backup Power Supply 3 amp, 110VAC to 12VDC, (UL listed)	\$104.12	\$0.00
Battery Back-Up and Power Supply, 6-amp, 110/220VAC,UL294, FCC, CE listed, 7-Ah battery. Enclosure: 10 x 12 x 6 inches. Recommended for M/5-PX, M/5-PXN, and M/5-PXNplus microcontrollers. Not required for M/2000-PX(N) or M/3000-PX(N).	\$422.06	\$0.00
Readers and Door Hardware Model T-520SW reader kit, gray single-width, F/2F and Wiegand formats, 18" pigtail, with MR/J Box.	\$457.65	\$0.00
Proximity Cards with external ID, Single Side Printing.	\$3.05	\$0.00
Proximity Key Fobs	\$4.60	\$0.00
Push to Exit Buttons	\$101.70	\$0.00
Egress Motions for Doors	\$166.79	\$0.00
Single Mag-locks (PROVIDED AND INSTALLED BY DOOR HARDWARE CONTRACTOR)	\$0.00	\$0.00
Single Mag-locks (PROVIDED AND INSTALLED BY TRIPLE-S ALARM)	\$289.85	\$0.00
Double Mag-locks (PROVIDED AND INSTALLED BY DOOR HARDWARE CONTRACTOR)	\$0.00	\$0.00
Double Mag-locks (PROVIDED AND INSTALLED BY TRIPLE-S ALARM)	\$625.46	\$0.00
Door Strikes (PROVIDED AND INSTALLED BY DOOR HARDWARE CONTRACTOR)	\$0.00	\$0.00
Door Strikes (PROVIDED AND INSTALLED BY TRIPLE-S ALARM)	\$274.59	\$0.00
Service outside of warranty	\$80.00 / Per Hour	
After Hour Service Call outside of warranty 8 AM TO 5 PM Normal Business Hours	\$120.00 / Per Hour	
Factory Training As described in Specs (Current Prices of Hotel and Air Fare)	\$5,125.00 each person	\$0.00
Response Time	1 hrs / 24 hrs system working	
Access Control Maintenance Agreement (Devices for this building only) (See Attached) Maintenance Agreement Calculated Not to EXCEED 7.5% of System Total Price On 1st Year add 5% every year there after.	\$11,278.00	\$0.00
Access 3 Year Warranty Only (Without Maintenance Agreement)	\$0.00	\$0.00
Access Additional 2 Year Warranty Only (Without Maintenance Agreement)	\$14,847.00	\$0.00
Access Control 18awg 8 conductor Power (enter numerical value per thousand feet)	\$0.58 cents per foot	\$0.00
Access Control 22/4 awg (enter numerical value per thousand feet)	\$0.09 cents per foot	\$0.00
Line Items Include (Labor, P/P Bond, Design Consultant, Shipping, Plans) Line Item Prices Reflect Change Orders, Future Budget Pricing. Sales Tax Is Not Included.	Line Items Total Cost	\$0.00
	Material and Installation Cost	\$0.00

TAXES WILL BE ADDED AT TIME OF CONTRACT SIGNING