MSE of Kentucky, Inc.

Engineers/Architects/Planners

624 Wellington Way
Lexington,
Kentucky 40503
859-223-5694
FAX 859-223-2607
E-Mail: mseinc@mselex.com

Addendum No. 3
City of Corbin, Kentucky
Corbin Center Addition Project
Bid Date: June 3, 2025
Addendum Issue Date: May 30, 2025

The Contractor shall conform to the following changes, as same shall become binding upon the Contract to be issued in response to this invitation.

M/E/P

1. Refer to Drawings; Sheet E-7:
    a. Panel schedule PP7 updated for IDF power.

2. Refer to Drawings; Sheet E-3:
    a. Provisions added for future WAP devices. Keyed note 12
    b. Power added for IDF in room 106. New fiber is to be taken from the existing communications room to room 106 via cable tray and terminate in new fiber termination board. Keyed note 13
    c. Projector screens and projectors added. Keyed notes 6,7,8,9, & 10

3. Refer to Drawings; Sheet E-0:
    a. Data outlet box symbol updated to include (2) cat 6 cables back to IDF.

4. Questions from 05-29-2025:
    a. Can AC type cable be installed for RTUs?
        i. AC cable can not be used in the project. MC cable is acceptable for circuits under 30A and where concealed in the wall or above the ceiling. Neither can be used on the RTU's

    b. On E-3, room 106 shows panel PP7 and it also shows another one that just says panel. What panel is this?
        i. The "Panel" adjacent to panel PP7 is the lighting control panel. It should be located where indicated on sheet E-4 by note #6.

5. Refer to Specifications, Section 221316:
    a. Interior storm water piping underground and concealed in walls to be schedule 40 PVC with solvent joined fittings.

    b. Interior storm water piping above ceilings in the return air plenum to be standard weight cast iron; with hubs.

    c. 6" concrete storm headwall to be equal to Oldcastle (or equal) precast perforated pipe headwall, but with solid 6" pipe cast into concrete. Headwall to be Type 3 with 4:1 slope. Model PERF P HW-KY.

6. Refer to Specifications, Section 220700:
    a. Insulate all horizontal above slab storm water piping with ½" minimum thickness fiberglass pipe wrap with all purpose jacket and vapor barrier.

7. Refer to Specifications, Section 221116:
    a. Pro-Press copper may be used for joining domestic water piping.

    b. Water system to be tested to 90 PSIG, not 50 PSIG.

8. Question of 5/29/2025:
    a. Water heater schematic shows a water heater pan sitting on a 5 1/2" housekeeping pad spilling into the mop sink which is 10" above the finished floor. Would an open receptacle coming from above the mop sink trap below the finished floor be acceptable? Answer: NO, this not acceptable per code. Provide stand or concrete housekeeping pad at elevation to be able to spill drain to mop sink.

9. Refer to Drawings; Sheet M-3:
    a. Disregard previous instruction that the following RTU units are to have 0.4" external static pressure on the powered exhaust. Actual static pressure should be 0.125"
        i. RTU-4
        ii. RTU-5
        iii. RTU-6
        iv. RTU-7
    b. The following RTU units are to have 0.75" external static pressure on the supply fan in lieu of 1.3".
        i. RTU-4
        ii. RTU-5
        iii. RTU-6
        iv. RTU-7

10. Refer to Drawings; Sheet M-2: Note, there is an elevation change in the building roof height that is not reflected in the gas piping as it extends to serve RTU units RTU-4, RTU-5, RTU-6 and RTU-7. Refer to Architectural drawings for elevation change.

TELECOMMUNICATIONS

1. 12-Strand Fiber Run from MDF to IDF (Office 106)
NAICS 238210 - Telecommunications Wiring Installation

Furnish and install a 12-strand, single-mode fiber optic cable run from the Main Distribution Frame (MDF) room to the Intermediate Distribution Frame (IDF) located in Office 106. The fiber optic cable shall be plenum-rated and installed in accordance with ANSI/TIA-568-C standards. The cable shall be routed through existing cable trays, conduits, or ceiling pathways, maintaining a minimum bend radius as specified by the manufacturer.

- **Termination**: Both ends of the fiber optic cable shall be terminated with LC connectors and mounted in a rack-mounted, standard locking data cabinet (minimum 4U) at the MDF and IDF locations. Terminations shall be fusion-spliced or mechanically connected, tested for continuity, and certified to meet TIA/EIA-568-B performance standards.
- **Cabinet Specifications**: The locking data cabinet shall be a 19-inch rack-compliant, steel enclosure with a minimum depth of 24 inches, equipped with a cooling fan, cable management, and grounding provisions.
- **Testing and Documentation**: Post-installation, the contractor shall perform OTDR testing on all fiber strands, providing test results and as-built drawings indicating cable routing, termination points, and labeling per ANSI/TIA-606-B standards.

2. Placement of Locking Cabinet for Cat6 Data Termination in IDF (Office 106)
NAICS 238210 - Telecommunications Wiring Installation

Install a locking data cabinet in the IDF location (Office 106) to accommodate Category 6 (Cat6) data terminations. The cabinet shall be a 19-inch rack-mounted, steel enclosure with a minimum height of 6U, depth of 24 inches, and equipped with a locking front door, cooling fan, and integrated cable management system.

- **Installation**: The cabinet shall be securely mounted to the floor or wall, as specified by the project requirements, and grounded in accordance with NEC Article 250. The cabinet shall house a 48-port Cat6 patch panel for data terminations, with all ports labeled per ANSI/TIA-606-B standards.
- **Cat6 Termination**: All Cat6 cables terminating in the IDF shall be punched down on the patch panel, tested for compliance with TIA/EIA-568-B Category 6 performance standards, and certified for data transmission up to 1 Gbps.
- **Environmental Considerations**: The cabinet shall be positioned to allow a minimum of 36 inches of clear access in front and 24 inches on the sides for maintenance, in compliance with local building codes and OSHA regulations.
- **Documentation**: The contractor shall provide as-built drawings detailing the cabinet location, patch panel configuration, and labeling scheme.

3. Ceiling Runs for Wireless Access Points Terminating in IDF Patch Panel
NAICS 238210 - Telecommunications Wiring Installation

Furnish and install plenum-rated Category 6 (Cat6) cables for wireless access point (WAP) connectivity, routed from the IDF patch panel in Office 106 to designated ceiling locations. All cable runs shall be installed in accordance with ANSI/TIA-568-C and local building codes, utilizing existing cable trays, conduits, or J-hooks for support.

- **Ceiling Termination**: At each WAP location, the Cat6 cable shall be terminated with a female RJ45 keystone jack mounted in a ceiling-rated enclosure or service loop bracket. A minimum 10-foot service loop of cable shall be neatly coiled and secured at the ceiling termination point to allow for future repositioning of the WAP.
- **IDF Termination**: All WAP cables shall terminate on a 48-port Cat6 patch panel in the IDF locking cabinet (Office 106). Terminations shall be punched down, labeled per ANSI/TIA-606-B standards, and tested for compliance with TIA/EIA-568-B Category 6 performance standards.
- **Installation Standards**: Cables shall maintain a minimum separation from electrical conduits per NEC requirements and avoid excessive tension or kinking. All ceiling penetrations shall be fire-stopped in accordance with ASTM E814 standards.
- **Testing and Documentation**: The contractor shall perform end-to-end continuity and performance testing on all WAP cable runs, providing test results and as-built drawings indicating cable routing, termination points, and labeling.

Notes:

- All work shall comply with the latest editions of the National Electrical Code (NEC), ANSI/TIA standards, and local building codes.
- The contractor shall coordinate with the project manager to ensure proper scheduling and access to MDF and IDF locations.
- Any deviations from the specified requirements must be approved in writing by the architect or project manager prior to execution.

ARCHITECTURAL

1. Can we get a material list for the block and brick company?
   Answer: A list of finishes and products is located on sheet A-2, Exterior Elevations.

2. The roofing company is wanting to know if Duro-Last can be substituted. I am attaching the data sheet they sent for the substitute.
   Answer: Yes, as long as it meets or exceeds that which is specified.

3. Project Construction Budget is $4.8 Million.

4. The attached door and hardware items are acceptable substitutions.

END OF ADDENDUM NO. 3

GENERAL NOTES - SCOPE OF WORK

A. SCOPE OF WORK

1. THE REQUIREMENTS HERE–IN–AFTER ARE IN ADDITION AND COMPLIMENT TO THE REQUIREMENTS, SHOWN ON THE DRAWINGS, & IN THE DIVISION 26,27,& 28 SPECIFICATIONS.

2. PROVIDE ALL LABOR AND MATERIAL NECESSARY TO ACCOMPLISH THE WORK SPECIFIED HEREIN AND AS SHOWN ON THE DRAWINGS.

3. COORDINATE WORK WITH ALL OTHER TRADES.

4. VISIT THE SITE AND VERIFY EXISTING CONDITIONS.

5. REMOVE ALL WASTE AND RUBBISH FROM THE SITE ON A DAILY BASIS.

B. WARRANTY: WORKMANSHIP AND MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER,. UON.

C. REGULATIONS

1. ELECTRICAL WORK SHALL COMPLY WITH THE FOLLOWING CODES AS PRESENTLY APPLICABLE:

a. NATIONAL ELECTRICAL CODE (NEC)

b. ENERGY CODE

c. LOCAL AND STATE CODES AND REGULATIONS

2. PERMITS: OBTAIN AND PAY FOR ALL REQUIRED PERMITS.

D. SUBMITTAL AND SHOP DRAWINGS: PRIOR TO INSTALLATION, SUBMIT CATALOG DATA FOR ALL EQUIPMENT AND MATERIALS FOR REVIEW. SUBMIT SHOP DRAWINGS SHOWING COMPLETE TERMINAL–TO–TERMINAL WIRING FOR EACH SIGNAL AND COMMUNICATION SYSTEM. THREE COPIES REQUIRED. (DOES NOT APPLY TO ALL PROJECT PHASES.)

E. OPERATIONS AND MAINTENANCE MANUALS: PROVIDE MAINTENANCE AND OPERATIONS DATA FOR ALL ELECTRICAL EQUIPMENT AND SIGNAL AND COMMUNICATIONS SYSTEMS. TWO COPIES & ONE "E" COPY ARE REQUIRED.

F. RECORD DRAWINGS: CORRECTIONS AND CHANGES MADE DURING THE PROGRESS OF THE WORK SHALL BE NEATLY RECORDED ON A SET OF DRAWINGS DEDICATED & MARKED RECORD DRAWINGS AS ACTUALLY INSTALLED FOR RECORD DRAWINGS. SUBMIT TO THE ARCHITECT UPON PROJECT COMPLETION.

G. CERTIFICATES OF INSPECTION: SUBMIT SIGNED–OFF PERMITS FROM THE CODE ENFORCING AGENCIES TO THE OWNER UPON PROJECT COMPLETION.

H. PRODUCT LISTING OR LABELING: ALL ELECTRICAL EQUIPMENT SHALL BE LISTED AND LABELED BY UNDERWRITERS?LABORATORIES, INC.

I. MATERIAL AND EQUIPMENT: ALL MATERIALS AND EQUIPMENT SHALL BE NEW UNLESS NOTED OTHERWISE. PROTECT ALL MATERIALS AND EQUIPMENT FROM DAMAGE OR CORROSION.

J. CUTTING AND PATCHING: PROVIDE ALL REQUIRED CUTTING AND PATCHING FOR THE ELECTRICAL WORK.

K. ANCHORAGE AND BRACING: PROVIDE COMPLETE SEISMIC ANCHORAGE AND BRACING FOR THE LATERAL AND VERTICAL SUPPORT OF CONDUIT AND ELECTRICAL EQUIPMENT AS REQUIRED BY THE INTERNATIONAL BUILDING CODE.

L. FIRESTOPPING: PROVIDE FIRESTOPPING FOR ALL PENETRATION IN RATED WALLS, CEILINGS AND FLOORS.

M. INSTRUCTION: CONTRACTOR SHALL INSTRUCT THE OWNER IN THE USE AND OPERATION OF ALL SYSTEMS INSTALLED UNDER THE SCOPE OF THIS CONTRACT.

LUMINAIRE SCHEDULE

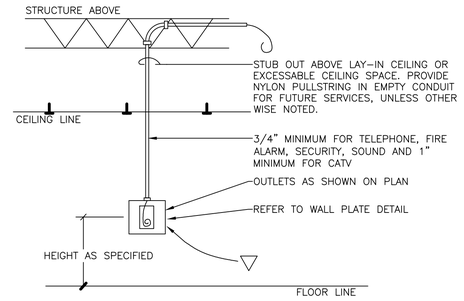
TYPE	MFG	DESCRIPTION/CATALOG #	LAMP	VOLTAGE	LUMENS	WATTS/ FIXTURE	NOTES
A2	TOPAZ	PL24-50WPCTS-D	LED	120	5000 MAX	50-MAX	RECESSED IN CEILING, SWITCHABLE LUMENS, 0-10V DIMMING
D1	NICOR	CDG438SUS9CLWHMD	LED	120	3800 MAX	38 - MAX	RECESSED IN CEILING, SWITCHABLE LUMENS, 0-10V DIMMING
D2	NICOR	CDG638SUS9CLWHMD	LED	120	3800 MAX	38 - MAX	RECESSED IN CEILING, SWITCHABLE LUMENS, 0-10V DIMMING
D2B	NICOR	CDG638SUS9CLWHMD	LED	120	3800 MAX	38 - MAX	RECESSED IN CEILING, SWITCHABLE LUMENS, 0-10V DIMMING, INTERGAL BATTERY BACKUP
D3	NICOR	CDG4138SUS9CLWHMD	LED	120	3800 MAX	38 - MAX	RECESSED IN CEILING, SWITCHABLE LUMENS, 0-10V DIMMING
D3B	NICOR	CDG4138SUS9CLWHMD	LED	120	3800 MAX	38 - MAX	RECESSED IN CEILING, SWITCHABLE LUMENS, 0-10V DIMMING, INTERGAL BATTERY BACKUP
D4	NICOR	CDG6138SUS9CLWHMD	LED	120	3800 MAX	38 - MAX	RECESSED IN CEILING, SWITCHABLE LUMENS, 0-10V DIMMING, INTERGAL BATTERY BACKUP
EV	NICOR	EOT 1 MV 5K SV P S C	LED	120			
EX	NICOR	EXL4 1 UNV WH R 2 red	LED	120			LED EXIT SIGN
EXV	NICOR	EXC3 10 UNV WH R 2 SD	LED	120			LED EXIT SIGN/ EMERGENCY COMBO
L1	NICOR	LSL1445SUS8	LED	120	6200 MAX	34 - MAX	CABLE HUNG AT A MIN OF 9' AFF
P1	CUTTING EDGE INDUSTRIES	Custom 40	LED	120		15W PER BULB Med Based	48"x 24" Fabric Drum Pendant with 4 BULBS. 0-10V DIMMING. COORDINATE EXACT BLUB TYPE WITH DIMMER. Silver Organza - Styrene Hardback 4 sectionsSHADE
W1	CUTTING EDGE INDUSTRIES	WF-10X7ST-151-97-NEWSN-ADA-CUST	LED	120		15 - MAX Med Based	MAX 1 BULBS PER FIXTUER. 0-10V DIMMING. COORDINATE EXACT BLUB TYPE WITH DIMMER. Silver Organza Hardback/Self Trim inner SHADE
W2	TOPAZ	F-WPC/30W/CTS/BZ-96	LED	120	3750 MAX	30 - MAX	WALL PACK
W3	CUTTING EDGE INDUSTRIES	WF-CUS06-RIST-SVPC-CUS	LED	120		15 - MAX PER BULB Med Based	MAX 2 BULBS PER FIXTUER. 0-10V DIMMING. COORDINATE EXACT BLUB TYPE WITH DIMMER Laser Steel fluted SHADE

LEGEND OF SYMBOLS

- WALL MT'D LUMINAIRE SEE FIXTURE SCHEDULE
- RECESSED LUMINAIRE SEE FIXTURE SCHEDULE
- INDICATES LUMINAIRE W/ EMERGENCY POWER COMPONENTS AND/OR EMERGENCY CIRCUITRY
- EXIT SIGN - CEILING MT'D SEE FIXTURE SCHEDULE
- SURFACE - OR PENDANT MOUNTED LUMINAIRE SEE FIXTURE SCHEDULE
- a, b, c — LOWER CASE ALPHABET AT LUMINAIRES INDICATE SWITCHING SCHEME FOR INDIVIDUAL/GROUP OF LUMINAIRES
- $ — LIGHTING CONTROL STATION - SEE KEYED NOTE REFERENCED IN EACH ROOM FOR TYPE OF CONTROL- OTHERWISE PROVIDE A SINGLE POLE SWITCH
- ($) — KEYED SWITCH WITH PILOT LIGHT K/PL
- PP — LIGHTING CONTROLLER, LOW VOLTAGE RELAY - POWER PACK
- OC — OCCUPANCY SENSOR, DUAL TECHNOLOGY CEILING MT'D
- DS — DAYLIGHT SENSOR, CEILING MT'D
- 3$ — SWITCH WITH NUMERAL- 2=2 POLE 3=3 POLE 4= 4 WAY
- DUPLEX CONVENIENCE RECEPTACLE 120 VOLT
- QUADPLEX RECEPTACLE- (2) DUPLEX RECEPTACLES IN 2 GANG BOX WITH 2 GANG PLASTER RING 120 VOLT
- 120 VOLT GROUND FAULT INTERRUPTING DUPLEX RECEPTACLE
- 120 VOLT DUPLEX CONVENIENCE RECEPTACLE MT'D ABOVE A COUNTERTOP
- 120 VOLT DUPLEX CONVENIENCE RECEPTACLE WITH SPLIT WIRED, TOP WIRED HOT, BOTTOM SWITCH AS INDICATED
- 120 VOLT GROUND FAULT INTERRUPTING DUPLEX RECEPTACLE MT'D ABOVE A COUNTERTOP
- SPECIALTY OUTLET. COORDINATE WITH NOTES.
- EWC — ELECTRIC WATER COOLER OUTLET, SINGLE OUTLET
- WP/GFI — WEATHER PROOF GFI 120 VOLT DUPLEX RECEPTACLE MT'D OUTSIDE ABOVE GRADE OR AT ROOFTOP HVAC UNITS
- FLUSH FLOOR COMBINATION POWER & DATA OUTLET 120 VOLT
- FLUSH FLOOR SINGLE POWER OUTLET 120 VOLT
- FLUSH FLOOR COMMUNICATIONS OUTLET
- DATA OUTLET BOX; PROVIDE WITH BLANK FACEPLATE & 3/4" EMT CONDUIT STUB-OUT ABOVE CORRIDOR CEILING. PROVIDE (2) CAT 6 CABLES FROM BOX TO IDF UNLESS OTHERWISE NOTED.
- (J) — JUNCTION BOX AS NOTED
- WALL MT'D PUSH BUTTON AS NOTED:
- NON FUSED DISCONNECT SWITCH AS NOTED
- FUSED DISCONNECT SWITCH AS NOTED
- MAGNETIC STARTER SEE NOTES AND/OR SPECS
- COMBINATION STARTER/DISCONNECT. SEE NOTES AND/OR SPECS
- MOTOR CONNECTION
- EXHAUST FAN CONNECTION
- MOTORIZED DAMPER CONNECTION
- $M — MANUAL MOTOR RATED FRACTIONAL HP SWITCH
- FV — FIRE ALARM AUDIO/VISUAL SPEAKER NOTIFICATION APPLIANCE
- FIRE ALARM AUDIO/VISUAL NOTIFICATION APPLIANCE
- FIRE ALARM VISUAL ONLY (STROBE) NOTIFICATION APPLIANCE
- FIRE ALARM MANUAL PULL STATION
- P — TBD
- (S)D — FIRE ALARM DUCT MT'D SMOKE DETECTOR
- (F)H — FIRE ALARM HEAT DETECTOR - CEILING MT'D
- (F)S — FIRE ALARM SMOKE DETECTOR - CEILING MT'D
- TS — FIRE ALARM TAMPER SWITCH CONNECTION AT SPRINKLE SYSTEM
- FS — FIRE ALARM FLOW SWITCH CONNECTION AT SPRINKLY SYSTEM
- PIV — FIRE ALARM POST INDICATING VALVE AT SPRINKLE SYSTEM
- FACP — FIRE ALARM SYSTEM CONTROL PANEL
- A — FIRE ALARM SYSTEM REMOTE ANNUNCIATOR
- M — FIRE ALARM SYSTEM ELECTROMAGNETIC DOOR HOLDER
- KP — SECURITY SYSTEM KEY PAD
- C — SECURITY SYSTEM CAMERA
- S — CEILING MT'D SPEAKER
- S — COLUMN OR WALL MT'D SPEAKER
- TV — WALL MT'D TV OUTLET
- SPD — SURGE PROTECTION DEVICE ALSO REFERENCED AS TVSS
- INDICATES CONDUIT IN FLOOR SLAB, CEILING BELOW OR BELOW GRADE
- INDICATES CONDUIT CONCEALED ABOVE CEILING IN WALL OR EXPOSED ON SURFACE ABOVE
- HOME RUN CIRCUIT CONDUCTORS TO BRANCH CIRCUIT PANEL
- CONDUIT
- EXTERIOR EMERGENCY EGRESS PERSONNEL DOOR LUMINAIRE WITH EMERGENCY POWER COMPONENTS - SEE FIXTURE SCHEDULE
- EXTERIOR BUILDING MT'D AREA SECURITY LUMINAIRE - SEE FIXTURE SCHEDULE
- POLE MT'D LUMINAIRE IN PARKING LOT - SEE FIXTURE SCHEDULE
- LANDSCAPE LIGHTING COMPONENT - SEE FIXTURE SCHEDULE
- ADJUSTABLE ARM TRUCK DOCK FLOOD LIGHT

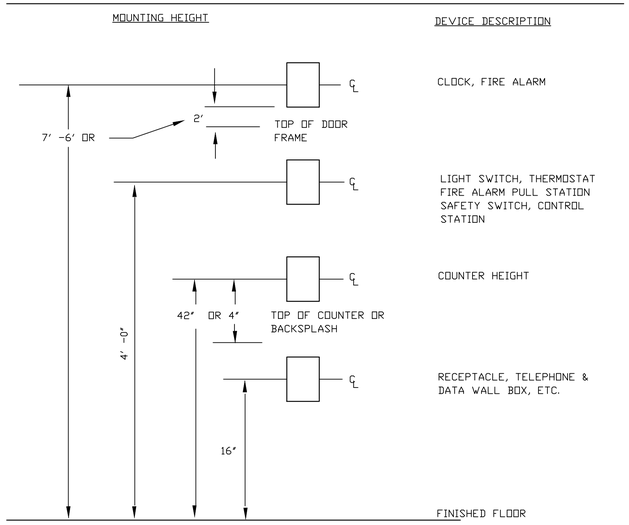
AFF	ABOVE FINISHED FLOOR
EC	ELECTRICAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
UNO	UNLESS NOTED OTHERWISE
AFG	ABOVE FINISHED GRADE
EWC	ELECTRIC WATER COOLER
NL	NIGHTLIGHT CIRCUIT
WP	WATER PROOF
POS	POINT OF SERVICE
GFI	GROUND FAULT INTERRUPTER RECEPTACLE
FBO	FURNISHED BY OTHERS
FDS	FUSED DISCONNECT SWITCH
UON	UNLESS OTHERWISE NOTED
NFDS	NON-FUSED DISCONNECT SWITCH

- ⊗ — EQUIPMENT MT'D JUNCTION BOX
- — D — INDICATES CONDUIT FOR DATA
- — T — INDICATES CONDUIT FOR TELEPHONE
- XFMR — TRANSFORMER



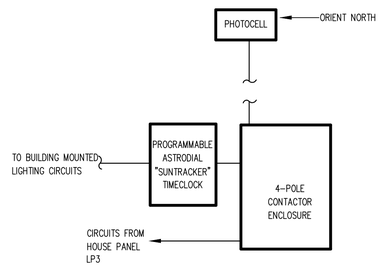
ROUGH-IN DETAIL FOR STUB-OUTS

SCALE: N.T.S.



DEVICE MOUNTING DETAIL

SCALE: N.T.S.

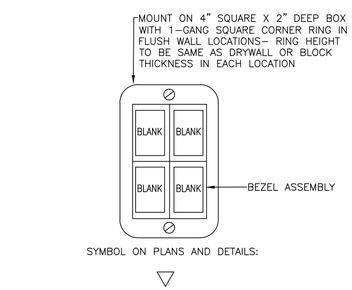


SCHEME DESCRIPTION

LIGHTING ON WITH PHOTOCELL, OFF WITH TIMECLOCK SERVING FRONT FACADE LIGHTING AND REAR SECURITY LIGHTING

EXTERIOR BUILDING LIGHTING DIAGRAM

SCALE: N.T.S.



DETAIL OF TYPICAL TELE-DATA WALLPLATE

SCALE: N.T.S.

STATE OF KENTUCKY
CHARLES MATTHEW CLUB
19300
LICENSED PROFESSIONAL ENGINEER

TECHNICAL HORIZONS
Industrial • Commercial • Institutional
501 Darby Creek Drive, Ste. 31, Lexington, KY
859.264.0064

BUILDING ADDITION TO THE CORBIN CENTER
CORBIN, KENTUCKY

REVISION	BY	DATE

DESIGN DOCUMENTS
The design professional waives any and all responsibility and liability for problems which arise from failure to follow these plans, specifications and this design month by month.

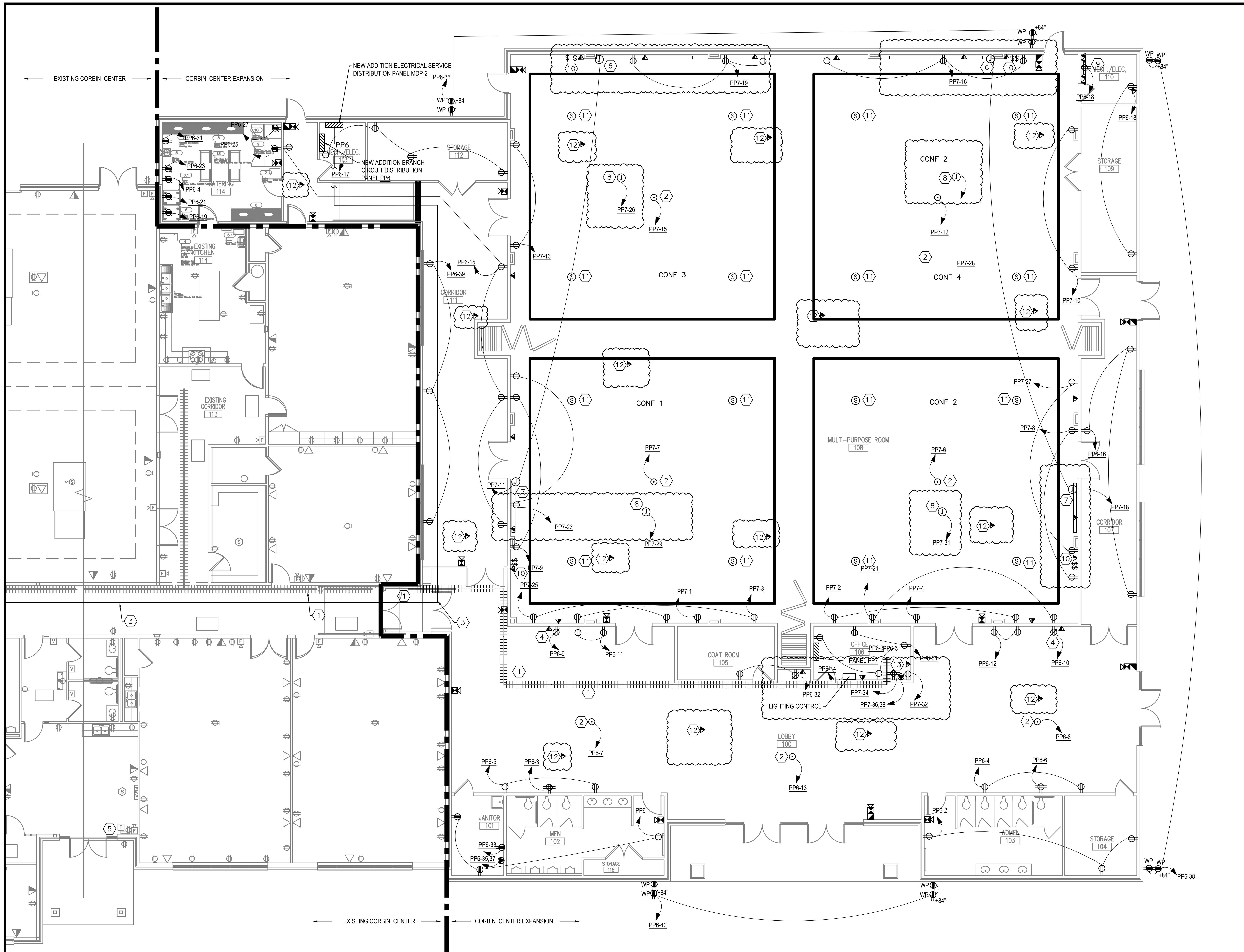
PROJECT NO.	405-00
DESIGNED BY	JF/AM
DRAWN BY	AJ/JF
CHECKED BY	MM
REVIEWED BY	
DATE	10 MAY 2019
SCALE	AS NOTED

Engineers
Architects
Planners
MSE OF KENTUCKY, INC.
624 Wellington Way
Lexington, KY 40503
www.msekctx.com
Phone: (859)223-5694
Fax: (859)223-2607

DRAWING NO.

E-0

SHEET OF



PARTIAL FLOOR PLAN - BUILDING EXPANSION POWER

SCALE: 1/8" = 1'-0"

TAGGED NOTES

1. CONNECT TO AND EXTEND EXISTING CABLE TRAY INTO NEW BUILDING EXTENSION ABOVE CEILING AND TURN INTO AV ROOM
2. FLUSH MOUNTED FLOOR BOX WITH QUAD OUTLET. COORDINATE EXACT FINISH AND COVER TYPE WITH ARCHITECT TO MATCH FLOOR
3. INSTALL NEW OVERHEAD FEEDER FROM EXISTING MDP–1 TO NEW MDP–2. COORDINATE EXACT PATH IN FIELD. (2) 4" CONDUITS BE HELD TIGHT TO DECK. COORDINATE WITH SINGLE LINE FOR EXACT FEEDER CONDUCTOR SIZES REQUIRED.
4. DEDICATED POWER AND DATA CONNECTION FOR WALL MOUNTED MONITORS. COORDINATE EXACT HEIGHT AND LOCATION WITH OWNER
5. UPDATE EXISTING FIRE ALARM ANNUNCIATEOR TO INCLUDE ADDITION AND REMOVE DEMOLISHED DEVICES.
6. PLENUM RATED RETRACTABLE MOTORIZED 200" PROJECTOR SCREENS EQUAL TO STEWART'S CASCADE G2. COORDINATE MOUNTING SUPPORTS WITH MANUFACTURER INSTRUCTIONS. COORDINATE EXACT ELECTRICAL CONNECTION WITH MANUFACTURERS.
7. PLENUM RATED RETRACTABLE MOTORIZED 200" PROJECTOR SCREENS EQUAL TO STEWART'S CASCADE G2. COORDINATE MOUNTING SUPPORTS WITH MANUFACTURER INSTRUCTIONS. COORDINATE EXACT ELECTRICAL CONNECTION WITH MANUFACTURERS.
8. APPROXIMATE LOCATION PROJECTOR AND 6' SCISSOR LIFT. LIFT TO BE LOCATED SUCH THAT NO DUCTWORK SHALL BE OVER TOP OF LIFT AND LIFT IS CENTERED INTO A CEILING GRID TILE. LIFTER IS TO EQUAL TO DRAPER SCISSOR LIFT SL. PROVIDE ENVIRONMENTAL AIR SPACE HOUSING OPTION ON LIFT. PROJECTOR IS TO BE EQUAL TO EPSON BE–PU1008B. PROVIDE 120V 20A CIRCUIT TO LOCATION FOR CONNECTION TO LIFT AND PROJECTOR. PROVIDE HDMI CABLE FROM HDMI SPLITTER TO PROJECTOR
9. LOCATION FOR HDMI SPLITTER/SWITCH EQUAL TO KEY DIGITAL KD–MS4X4G. DEVICE TO HAVE ABILITY TO RECEIVE A MINIMUM OF 4 HDMI INPUTS AND OUTPUTS. LOCATION FOR (4) HDMI RECEIVER FOR HDMI INPUT WALL PLATES EQUAL TO ATLONA AT–OME–EX–RX. CONNECT RECEIVERS TO SPLITTER WITH HDMI CABLES. EC TO PROVIDE ALL ADDITIONAL ACCESSORIES AND CABLE FOR A FULLY FUNCTIONAL SYSTEM INCLUDE ANY NECESSARY AMPLIFIERS FOR SPEAKER SYSTEM.
10. LOCATION FOR SCREEN CONTROL TOGGLE SWITCH, PROJECTOR LIFT CONTROL TOGGLE SWITCH, AND HDMI INPUT WALL PLATE. WALL PLATE EQUAL TO ATLONA AT–OME–EX–TX–WP
11. APPROXIMATE LOCATION OF CEILING SPEAKERS. SPEAKERS TO BE CONNECTED WORK IN CONJUNCTION WITH PROJECTOR IN ROOM AND BE ABLE TO OUTPUT FROM A SOURCE IN ANY OF THE 4 AREAS.
12. APPROXIMATE LOCATION FOR FUTURE WAP ABOVE CEILING. PROVIDE CAT 6 CABLE FROM IDF TO THIS LOCATION AND AND WRAP AN ADDITIONAL 10' IN THE RAFTERS ABOVE.
13. LOCATION FOR IDF. PROVIDE FIBER FROM EXISTING IT ROOM IN EXISTING BUILDING TO THIS LOCATION THROUGH CABLE TRAY. TERMINATE FIBER IN FIBER TERMINATION PANEL ON BOTH SIDES.

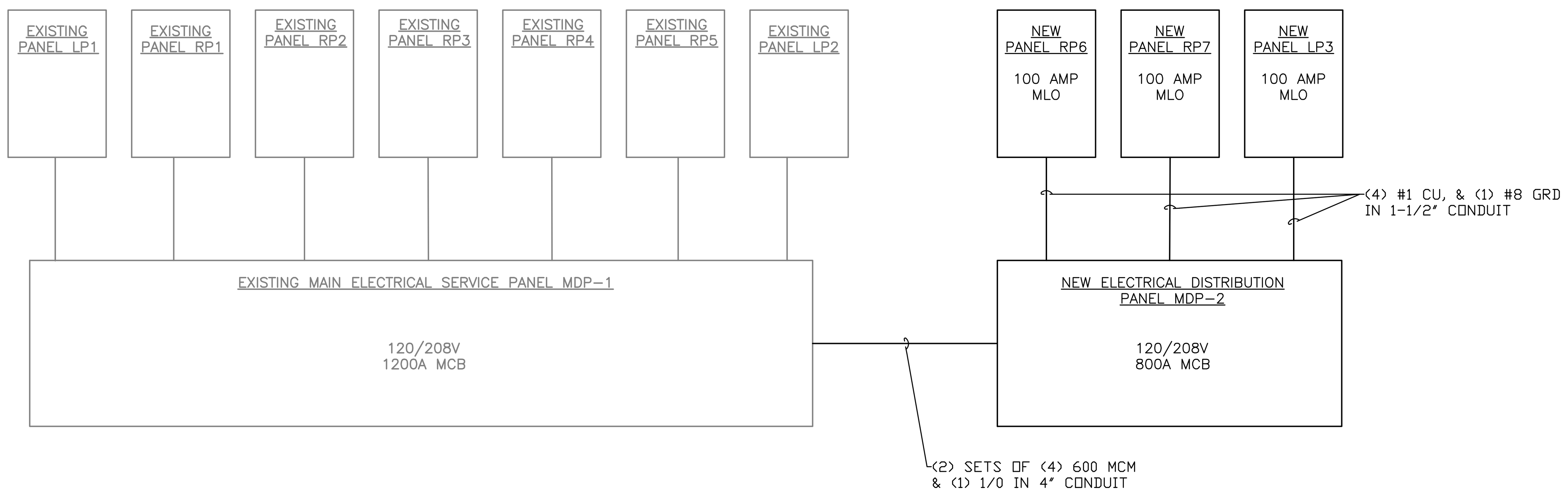
BUILDING ADDITION TO THE CORBIN CENTER
CORBIN, KENTUCKY

TECHNICAL HORIZONS

MSE OF KENTUCKY, INC.
Engineers Architects Planners
624 Wellington Way
Lexington, KY 40503
www.msektx.com
Phone: (859)223-5694
Fax: (859)223-2607

DRAWING NO.

E-3



ELECTRICAL POWER SINGLE LINE

SCALE: NTS

EXISTING PANEL: MDP-1

VOLTAGE: 120 /208V
PHASES: 3
WIRES: 4
GROUND: INSULATED

MINIMUM INTERRUPTING RATING:		MAIN LUG RATING:	1200
		MAIN BREAKER RATING:	1200

POLE NO.	C.B. TRIP	C.B. POLES	CIRCUIT SERVED	WIRE SIZE	Load Category	LOAD VA	A	B	C	LOAD VA	Load Category	WIRE SIZE	CIRCUIT SERVED	C.B. POLES	C.B. TRIP	POLE NO.
1					L		0				R					2
3	225	3	(EX) LP1	4/0	L			0			R	4/0	(EX) PP1	3	225	4
5					L				0		R					6
7					R		0				P					8
9	225	3	(EX) PP2	4/0	R			0			P	4/0	(EX) PP3	3	225	10
11					R				0		P					12
13					P		0				M					14
15	225	3	(EX) PP4	4/0	P			0			M	6	(EX) M-21	3	50	16
17					P				0		M					18
19					M		0				M					20
21	50	3	(EX) M-23	6	M			0			M	6	(EX) M-25	3	50	22
23					M				0		M					24
25					M		0				R					26
27	50	3	(EX) M-28	6	M			0			R	4/0	(EX) PP5	3	225	28
29					M				0		R					30
31					L		78440			78439.83	P					32
33	125	3	(EX) LP2	1/0	L			78440		78439.83	P		MDP-2	3	800	34
35					L				78440	78439.83	P					36

	A	B	C							
TOTAL KVA PER PHASE:	105	105	105	RECEPT (R)	100%	0		0	100%	(C) CONT
TOTAL CONNECTED KVA:	315.12			LIGHT (L)	100%	0		0	100%	(NC)NONCONT
				MOTOR(M)	100%	0	DEMAND CACLS (KVA)	0	100%	(K)KITCHEN
TOTAL DEMAND:	315.12			HEAT(H)	100%	0		0	100%	(WR) WELD
DEMAND AMPS:	875.3			PANELS (P)	100%	315				

PANEL: MDP-2

VOLTAGE: 120 /208V
PHASES: 3
WIRES: 4
GROUND: INSULATED

MINIMUM INTERRUPTING RATING:	10 KAIC	MAIN LUG RATING:	1000
		MAIN BREAKER RATING:	800

POLE NO.	C.B. TRIP	C.B. POLES	CIRCUIT SERVED	WIRE SIZE	Load Category	LOAD VA	A	B	C	LOAD VA	Load Category	WIRE SIZE	CIRCUIT SERVED	C.B. POLES	C.B. TRIP	POLE NO.
1					P	4698	8278			3580	M					2
3	100	3	LP3	1	P	4698		8278		3580	M	6	RTU-1	3	50	4
5					P	4698			8278	3580	M					6
7					P	4964	9064			4100	M					8
9	200	3	PP6	3/0	P	4964		9064		4100	M	4	RTU-2	3	60	10
11					P	4964			9064	4100	M					12
13					P	2340	6440			4100	M					14
15	200	3	PP7	3/0	P	2340		6440		4100	M	4	RTU-3	3	60	16
17					P	2340			6440	4100	M					18
19					M	9732	19464			9732	M					20
21	125	3	RTU-7	1/0	M	9732		19464		9732	M	1/0	RTU-4	3	125	22
23					M	9732			19464	9732	M					24
25					M	14520	24252			9732	M					26
27	175	3	RTU-8	2/0	M	14520		24252		9732	M	1/0	RTU-5	3	120	28
29					M	14520			24252	9732	M					30
31	20	1	SPARE	12			9732			9732	M					32
33	20	1	SPARE	12				9732		9732	M	1/0	RTU-6	3	115	34
35	20	1	SPARE	12					9732	9732	M					36
37	20	1	SPARE	12			0					12	SPARE	1	20	38
39	20	1	SPARE	12				0				12	SPARE	1	20	40
41	20	1	SPARE	12					0			12	SPARE	1	20	42

	A	B	C							
TOTAL KVA PER PHASE:	77.23	77.23	77.23	RECEPT (R)	100%	0		0	100%	(C) CONT
TOTAL CONNECTED KVA:	231.69			LIGHT (L)	100%	0		0	100%	(NC)NONCONT
				MOTOR(M)	102%	199	DEMAND CACLS (KVA)	0	100%	(K)KITCHEN
TOTAL DEMAND:	235.32			HEAT(H)	100%	0		0	100%	(WR) WELD
DEMAND AMPS:	653.7			PANELS (P)	100%	36				

PANEL: LP3

VOLTAGE: 120 /208V
PHASES: 3
WIRES: 4
GROUND: INSULATED

MINIMUM INTERRUPTING RATING:	10 KAIC	MAIN LUG RATING:	200A

POLE NO.	C.B. TRIP	C.B. POLES	CIRCUIT SERVED	WIRE SIZE	Load Category	LOAD VA	A	B	C	LOAD VA	Load Category	WIRE SIZE	CIRCUIT SERVED	C.B. POLES	C.B. TRIP	POLE NO.
1	20	1	PORCH LGT	12	L	152	988			836	L	12	MULTI PURP RM R-HALL LGT	1	20	2
3	20	1	LGT RMS 101-104	12	L	366		1202		836	L	12	MULTI PURP RM L-HALL LGT	1	20	4
5	20	1	CORRIDOR LGTS RM 111	12	L	532			1748	1216	L	12	MULTI PURP RM R-RM LGTS	1	20	6
7	20	1	RMS 105 & 106	12	L	200	1416			1216	L	12	MULTI PURP RM L-RM LGTS	1	20	8
9	20	1	LOBBY LTG RM 100, CORRIDOR 107	12	L	1558		2026		468	L	12	LGT RMS 112-114	1	20	10
11	20	1	LTG RMS 109-110 M/ELECT, STOR.	12	L	184			716	532	L	12	EMR BLDG LGT	1	20	12
13	20	1	FUTURE LIGHT	12	L	500	1460			960	L	12	PENDANT LIGHTS	1	20	14
15	20	1	SPARE	12				960		960	L	12	PENDANT LIGHTS	1	20	16
17	20	1	SPARE	12					460	460	L	12	WALL SCONCE	1	20	18
19	20	1	SPARE	12			300			300	L	12	WALL PACS	1	20	20
21	20	1	SPARE	12				0				12	SPARE	1	20	22
23	20	1	SPARE	12					0			12	SPARE	1	20	24
25	20	1	SPARE	12			0					12	SPARE	1	20	26
27	20	1	SPARE	12				0				12	SPARE	1	20	28
29	20	1	SPARE	12					0			12	SPARE	1	20	30
31	20	1	SPARE	12			0					12	SPARE	1	20	32
33	20	1	SPARE	12				0				12	SPARE	1	20	34
35	20	1	SPARE	12					0			12	SPARE	1	20	36
37	20	1	SPARE	12			0					12	SPARE	1	20	38
39	20	1	SPARE	12				0				12	SPARE	1	20	40
41	20	1	SPARE	12					0			12	SPARE	1	20	42

	A	B	C							
TOTAL KVA PER PHASE:	4.164	4.188	2.924	RECEPT (R)	100%	0		0	100%	(C) CONT
TOTAL CONNECTED KVA:	11.28			LIGHT (L)	125%	14.1		0	100%	(NC)NONCONT
				MOTOR(M)	100%	0	DEMAND CACLS (KVA)	0	100%	(K)KITCHEN
TOTAL DEMAND:	14.10			HEAT(H)	100%	0		0	100%	(WR) WELD
DEMAND AMPS:	39.2			PANELS (P)	100%	0				

PANEL: PP6

VOLTAGE: 120 /208V
PHASES: 3
WIRES: 4
GROUND: INSULATED

MINIMUM INTERRUPTING RATING:	10 KAIC	MAIN LUG RATING:	200A

POLE NO.	C.B. TRIP	C.B. POLES	CIRCUIT SERVED	WIRE SIZE	Load Category	LOAD VA	A	B	C	LOAD VA	Load Category	WIRE SIZE	CIRCUIT SERVED	C.B. POLES	C.B. TRIP	POLE NO.
1	20	1	PWR RM 101-102 JANITOR	12	R	540	1080			540	R	12	PWR RM 103-104 STORAGE	1	20	2
3	20	1	LOBBY RM 100 PWR	12	R	360		720		360	R	12	LOBBY RM 100 PWR	1	20	4
5	20	1	LOBBY RM 100 PWR	12	R	360			720	360	R	12	LOBBY RM 100 PWR	1	20	6
7	20	1	LOBBY RM 100 PWR	12	R	180	360			180	R	12	LOBBY RM 100 PWR	1	20	8
9	20	1	LOBBY RM 100 PWR	12	R	180		360		180	R	12	LOBBY RM 100 PWR	1	20	10
11	20	1	LOBBY RM 100 PWR	12	R	360			540	180	R	12	LOBBY RM 100 PWR	1	20	12
13	20	1	LOBBY RM 100 PWR	12	R	180	680			500	R	12	OFFICE 106 PWR	1	20	14
15	20	1	CORRIDOR 111 PWR	12	R	720		1260		540	R	12	CORRIDOR 107 PWR	1	20	16
17	20	1	STOR 112 MECH/E RM 113 PWR	12	R	720			1260	540	R	12	STOR RM 109 MECH/E 110 PWR	1	20	18
19	20	1	CABINET HEATING	12	R	1500	2220			720	R	12	RECPTS AT RTUS	1	20	20
21	20	1	CABINET HEATING	12	R	1500		2220		720	R	12	RECPTS AT RTUS	1	20	22
23	20	1	REC	12	R	180			180			12	SPARE	1	20	24
25	20	1	REFIGERATOR	12	R	770.5	770.5					12	SPARE	1	20	26
27	20	1	FREEZER	12	R	770.5		770.5				12	SPARE	1	20	28
29	20	1	SPARE	12					0			12	SPARE	1	20	30
31	20	1	REC	12	R	180	540			360	R	12	LOBBY	1	20	32
33	20	1	WASHER	12	R	500		1220		720	R	12	RECPTACLE 106	1	20	34
35	30	2	DRYER	12	R	1000			1720	720	R	12	EXTERIOR RECPTACLE	1	20	36
37					R	1000	1720			720	R	12	EXTERIOR RECPTACLE	1	20	38
39	20	1	CORRIDOR 111 PWR	12	R	540		1260		720	R	12	EXTERIOR RECPTACLE	1	20	40
41	20	1	REC	12	R	180			180			12	SPARE	1	20	42
43	20	1	SPARE	12			0					12	SPARE	1	20	44
45	20	1	SPARE	12				0				12	SPARE	1	20	46
47	20	1	SPARE	12					0			12	SPARE	1	20	48
49	20	1	SPARE	12			0					12	SPARE	1	20	50
51	20	1	SPARE	12				0				12	SPARE	1	20	52
53	20	1	SPARE	12					0			12	SPARE	1	20	54

	A	B	C							
TOTAL KVA PER PHASE:	7.371	7.811	4.6	RECEPT (R)	75%	14.9		0	100%	(C) CONT
TOTAL CONNECTED KVA:	19.78			LIGHT (L)	100%	0		0	100%	(NC)NONCONT
				MOTOR(M)	100%	0	DEMAND CACLS (KVA)	0	100%	(K)KITCHEN
TOTAL DEMAND:	14.89			HEAT(H)	100%	0		0	100%	(WR) WELD
DEMAND AMPS:	41.4			PANELS (P)	100%	0				

PANEL: PP7

VOLTAGE: 120 /208V
PHASES: 3
WIRES: 4
GROUND: INSULATED

MINIMUM INTERRUPTING RATING:	10 KAIC	MAIN LUG RATING:	200A

POLE NO.	C.B. TRIP	C.B. POLES	CIRCUIT SERVED	WIRE SIZE	Load Category	LOAD VA	A	B	C	LOAD VA	Load Category	WIRE SIZE	CIRCUIT SERVED	C.B. POLES	C.B. TRIP	POLE NO.
1	20	1	MULTI-P RM 108	12	R	180	540			360	R	12	MULTI-P RM 108	1	20	2
3	20	1	MULTI-P RM 108	12	R	360		540		180	R	12	MULTI-P RM 108	1	20	4
5	20	1	MULTI-P RM 108	12	R	180			360	180	R	12	MULTI-P RM 108 FL BOX	1	20	6
7	20	1	MULTI-P RM 108 FL BOX	12	R	360	720			360	R	12	MULTI-P RM 108	1	20	8
9	20	1	MULTI-P RM 108	12	R	360		720		360	R	12	MULTI-P RM 108	1	20	10
11	20	1	RECESSED SCREENS	12	R	400			580	180	R	12	MULTI-P RM 108 FL BOX	1	20	12
13	20	1	MULTI-P RM 108	12	R	360	540			180	R	12	MULTI-P RM 108 PROJECTOR	1	20	14
15	20	1	MULTI-P RM 108 FL BOX	12	R	180		720		540	R	12	MULTI-P RM 108	1	20	16
17	20	1	MULTI-P RM 108 PROJECTOR	12	R	180			580	400	R	12	RECESSED SCREENS	1	20	18
19	20	1	MULTI-P RM 108	12	R	540	720			180	R	12	MULTI-P RM 108	1	20	20
21	20	1	MULTI-P RM	12	R	360		540		180	R	12	MULTI-P RM 108	1	20	22
23	20	1	MULTI-P-RM	12	R	360			540	180	R	12	MULTI-P RM 108	1	20	24
25	20	1	MULTI-P-RM	12	R	360	860			500	R	12	PROJECTOR	1	20	26
27	20	1	MULTI-P-RM	12	R	360		860		500	R	12	PROJECTOR	1	20	28
29	20	1	PROJECTOR	12	R	500			860	360	R	12	HDMI RECIEVERS/SPLITTER	1	20	30
31	20	1	PROJECTOR	12	R	500	860			360	R	12	IDF	1	20	32
33	20	1	SPARE	12				360		360	R	12	IDF	1	20	34
35	20	1	SPARE	12					1200	1200	R	10	IDF	2	30	36
37	20	1	SPARE	12			1200			1200	R					38
39	20	1	SPARE	12				0				12	SPARE	1	20	40
41	20	1	SPARE	12					0			12	SPARE	1	20	42

	A	B	C							
TOTAL KVA PER PHASE:	5.44	3.74	4.12	RECEPT (R)	88%	11.7		0	100%	(C) CONT
TOTAL CONNECTED KVA:	13.30			LIGHT (L)	100%	0		0	100%	(NC)NONCONT
				MOTOR(M)	100%	0	DEMAND CACLS (KVA)	0	100%	(K)KITCHEN
TOTAL DEMAND:	11.65			HEAT(H)	100%	0		0	100%	(WR) WELD
DEMAND AMPS:	32.4			PANELS (P)	100%	0				

STATE OF KENTUCKY
CHARLES MATTHEW ELLIS
16390
LICENSED
PROFESSIONAL ENGINEER

TECHNICAL HORIZONS
Industrial • Commercial • Institutional
501 Darby Creek, Ste. 31, Lexington, KY
859.263.5983

BUILDING ADDITION
TO
THE CORBIN CENTER
CORBIN, KENTUCKY

DATE	REVISION	BY
[illegible]	[illegible]	

DESIGN DOCUMENTS:
The design professional waves any and all responsibility and liability for problems which arise from failure to follow these plans, specifications and the design intent they convey.

PROJECT NO.	4137-00
DESIGNED BY	JF/JIM
DRAWN BY	AJ/JF
CHECKED BY	JIM
REVIEWED BY	
DATE	[illegible]
SCALE	AS NOTED

MSE OF KENTUCKY, INC.
Engineers
Architects
Planners
624 Wellington Way
Lexington, KY 40503
www.mselex.com
Phone: (859)223-5694
Fax: (859)223-2607

DRAWING NO.
E-7
SHEET OF

Ceco Door
ASSA ABLOY

Updated 01/05/25

TECH MANUAL

Experience a safer
and more open world

HOLLOW METAL DOORS AND FRAMES

CEC-202-0524 PRINTED

Ceco Door
ASSA ABLOY

Frames

Experience a safer
and more open world

TECH MANUAL

FRAMES TABLE OF CONTENTS

FRAMES SERIES

STEEL FRAMES
Series SU Steel Frames (Unequal Rabbet) 6
Series SQ, SR, And SC Steel Frames.....10
Series SQ, 12 Gauge Steel Frames 14

CUSTOM
Series C Custom Frame Profiles.....18

DRYWALL
Series DU Slip-On Drywall Frames 22
Series DQ, DR, And DC Slip-On Drywall Frame 26
Series BQ, BU, BR, And BC (Before Drywall Frames) 30
Series DQW And DRW Gasketed Steel Frames 34
Series BQW And BRW Gasketed Steel Frames 38
Series SQW And SRW Gasketed Steel Frames.....42
Series DQB, DUB, DRB & DCB Slip-On Drywall Nailer Frames 46

MERCURY
Mercury Series TQ3 (Equal Rabbet), TU3 (Unequal Rabbet) And TR3 (Single Rabbet) Thermal Break Frames 50

DOUBLE EGRESS
Series SE1 And SE2 Double Egress Frames 54

WELDED FRAMES
Welded Frames 58

FIRE DOOR FRAMES
Labeled Fire Door Frames.....62

STAINLESS TECH
Series SSQ, SSU, SSR And SSC Stainless Steel Frames 64

SECURITY SIDELITES
Security Sidelite 68
Drywall KD Sidelite.....69
“D” Series Knockdown Sidelite Steel Frames 71
Drywall KD Borrowed Lite.....72

ANCHORS

DOOR FRAME ANCHORS
Door Frame Anchors.....73
Frame Installation.....75

WALL APPLICATIONS

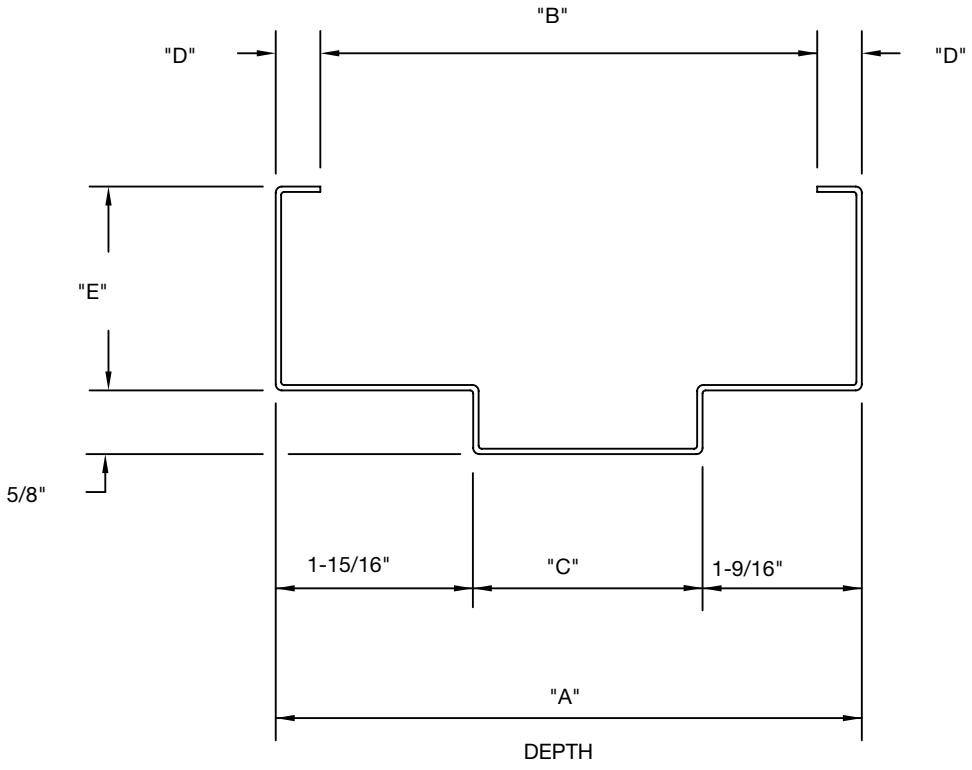
WALL APPLICATIONS, NEW CONSTRUCTION
Door Frame Wall Applications.....76

FRAME UNDERCOATING

ASPHALTIC FRAME UNDERCOATING
Asphaltic Frame Undercoating 81

SERIES SU STEEL FRAMES (UNEQUAL RABBET)

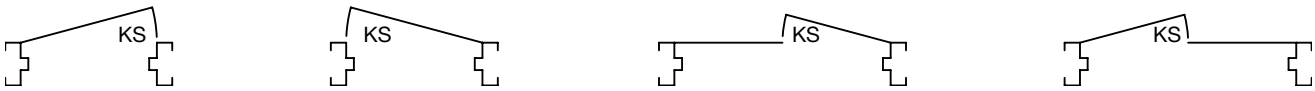
FOR 1-3/4" THICK DOORS - STANDARD WALL APPLICATION, HANDED



DEPTH	A	B	C	D	E	
					HEAD & JAMBS	HEAD & JAMBS
434	4-3/4"	3-3/4"	1-1/4"	1/2"	2"	1"
534	5-3/4"	4-7/8"	2-1/4"	7/16"	2"	1"
634	6-3/4"	5-3/4"	3-1/4"	1/2"	2"	1"
734	7-3/4"	6-3/4"	4-1/4"	1/2"	2"	1"
834	8-3/4"	7-3/4"	5-1/4"	1/2"	2"	1"

SERIES SU, DOUBLE RABBET FRAMES (WITH UNEQUAL RABBETS) ARE ALSO AVAILABLE IN A RANGE OF DEPTHS FROM: 4-5/8" THRU 14" IN 1/8" INCREMENTS. 4" FACE HEADS WITH 2" FACE JAMBS ARE ALSO AVAILABLE IN SELECTED SIZES.

INSIDE



OUTSIDE

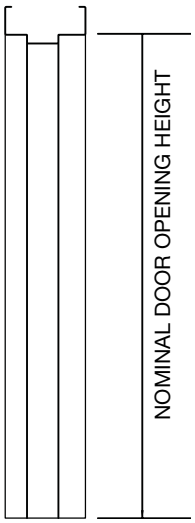
"KS"= KEY SIDE

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

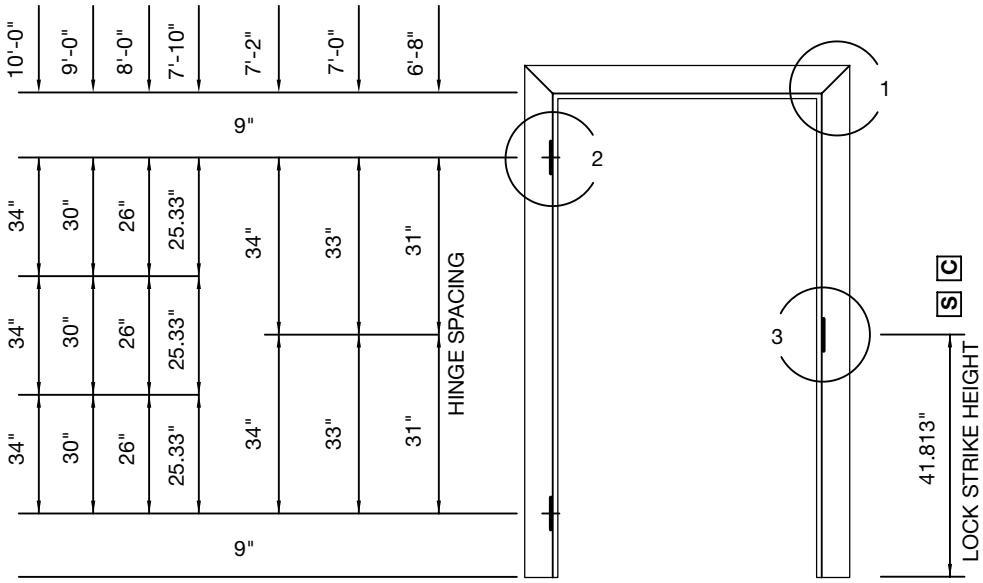
SERIES SU STEEL FRAMES (UNEQUAL RABBET)

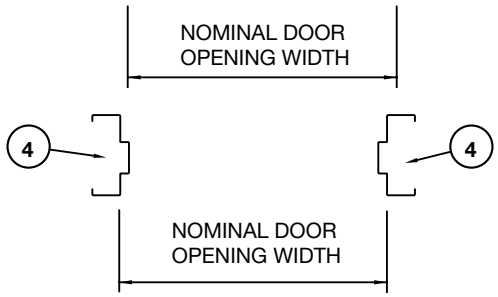
HARDWARE LOCATIONS SHOWN MATCH CECO STANDARD DOORS.

VERTICAL SECTION



ELEVATION

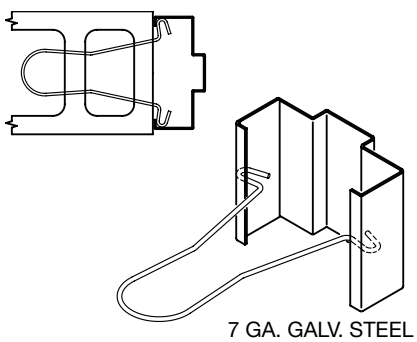




HORIZONTAL SECTION

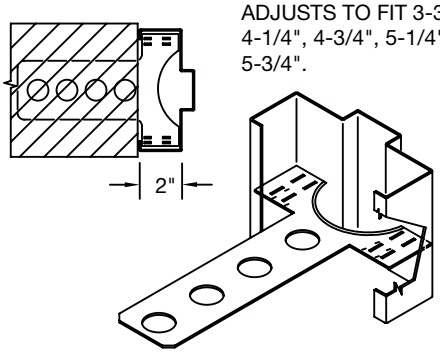
JAMB ANCHOR QUANTITIES	2 PER JAMB FOR HEIGHTS 3'6" THRU 5'0" AND ONE FLOOR ANCHOR 3 PER JAMB FOR HEIGHTS >5'0" THRU 7'2" AND ONE FLOOR ANCHOR 4 PER JAMB FOR HEIGHTS >7'2" THRU 7'6" AND ONE FLOOR ANCHOR 5 PER JAMB FOR HEIGHTS >7'6" THRU 10'0" AND ONE FLOOR ANCHOR ONE ADDITIONAL JAMB ANCHOR FOR EACH ADDITIONAL TWO FEET IN HEIGHT OR FRACTION THEREOF ONE ADDITIONAL JAMB ANCHOR IN LIEU OF FLOOR ANCHOR FOR EXISTING STUDS AND/OR WALL CONDITIONS.

(4) WIRE MASONRY ANCHOR WMA



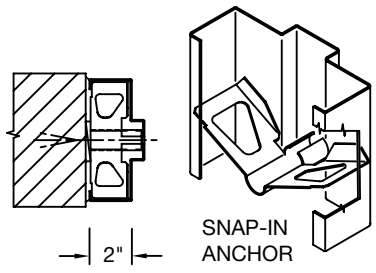
(FOR 3" THRU 8-3/4." DEPTHS)

(4) MASONRY "T" ANCHOR (ADJUSTABLE) MT



ALTERNATE MT ANCHOR DESIGN IS AVAILABLE FOR SPECIAL DEPTH & FACE FRAMES. SEE SECTION F13 FOR DETAILS.

(4) EXISTING OPENING ANCHOR EO

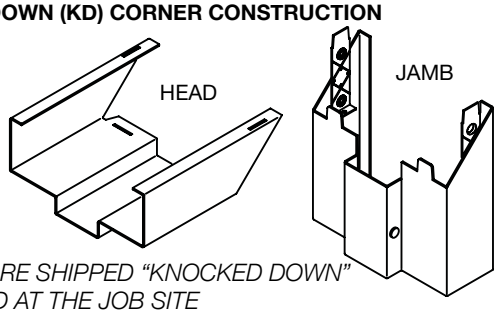


SU PROFILE
EO/S6: 4-3/4" THRU 6-3/4" DEPTH
EO/S8: 6-7/8" THRU 8-3/4" DEPTH

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

SERIES SU STEEL FRAMES (UNEQUAL RABBET)

1 KNOCKED DOWN (KD) CORNER CONSTRUCTION



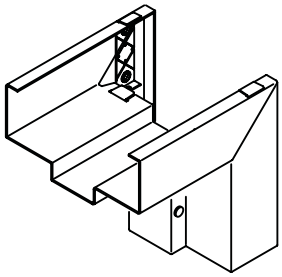
COMPONENTS ARE SHIPPED "KNOCKED DOWN" AND ASSEMBLED AT THE JOB SITE

1 WELDED CORNERS

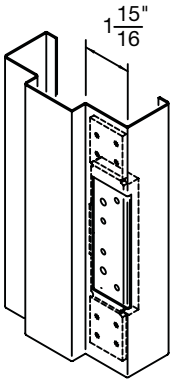
DIE-CUT CORNER WITH CORNER TAB AND FACE WELD SHOWN.

ALSO AVAILABLE WITHOUT TAB AND WELDED OR MITRE SAWED AND WELDED.

ALTERNATIVE WELD OPTIONS ARE ALSO AVAILABLE.

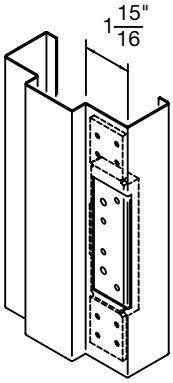


2 HINGE PREPARATION



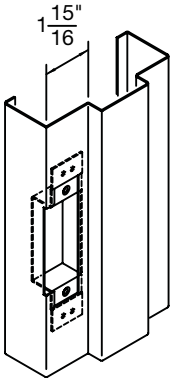
4-1/2" X .134" OR
4-1/2" X .180"
ANSI A156.7 TEMPLATE
7 GAUGE STEEL REINFORCING

2 HINGE PREPARATION



5" X .146" OR
5" X .190"
ANSI A156.7 TEMPLATE
7 GAUGE STEEL REINFORCING

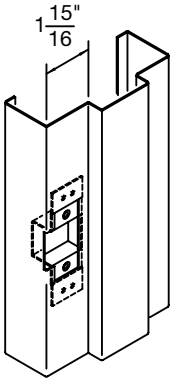
3 LOCK STRIKE PREPARATION



s

UNIVERSAL (4-7 /8")
ANSI A115.1 & 2 TEMPLATE
16 GAUGE STEEL REINFORCING
WITH EXTRUDED SCREW HOLES
PROVIDES EQUIVALENT THREAD
ENGAUGEMENT EQUAL TO 14 GAUGE.
STANDARD FOR 1-3/ 4" DOORS

3 LOCK STRIKE PREPARATION

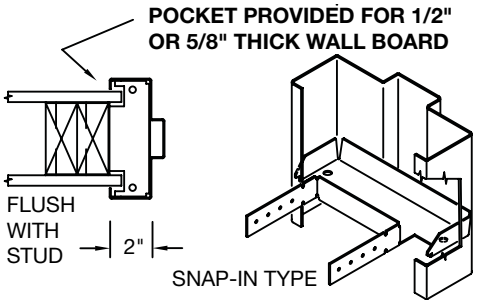


c

CYLINDRICAL (2-3/4")
ANSI A115.3 TEMPLATE
16 GAUGE STEEL REINFORCING
WITH EXTRUDED SCREW HOLES
PROVIDES EQUIVALENT THREAD
ENGAUGEMENT EQUAL TO 14 GAUGE.
OPTIONAL FOR 1-3/ 4" DOORS

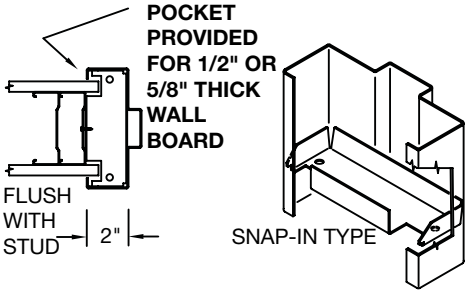
ALSO AVAILABLE WITHOUT LIP NOTCH FOR DEADBOLTS.

4 WOOD STUD ANCHOR WS



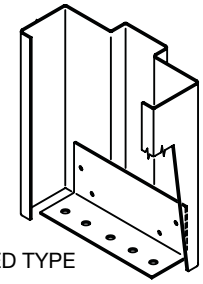
(USED ALSO FOR METAL STUD WALLS)

4 METAL STUD ANCHOR MS



4-3/4" AND 5-3/4" DEPTH ONLY FOR OTHER DEPTHS USE WS TYPE.

4 FIXED FLOOR ANCHOR SA



ONE PIECE

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

SERIES SU STEEL FRAMES (UNEQUAL RABBET)

STANDARD SIZES
NOMINAL DOOR OPENING

WIDTH		HEIGHT
SINGLE	DOUBLE	
2'-0"	4'-0"	
2'-4"	4'-8"	
2'-6"	5'-0"	6'-8"
2'-8"	5'-4"	7'-0"
2'-10"	5'-8"	7'-2"
3'-0"	6'-0"	7'-10"
3'-4"	6'-8"	8'-0"
3'-6"	7'-0"	9'-0"
3'-8"	7'-4"	10'-0"
3'-10"	7'-8"	
4'-0"	8'-0"	
5'-0"	10'-0"	

FIRE DOOR FRAMES

LABELING AGENCIES :
UL SOLUTIONS
WARNOCK HERSEY
FACTORY MUTUAL

TEST: UL10B, UL10C, UL1784 & NFPA 252

RATING: 20 MIN, 3/4 HR, 1 HR, 1-1/2 HR, OR 3 HR

MAX. SIZE: 4'0" X 10'0" SINGLE
8'0" X 10'0" PAIR

NOT ALL RATINGS ARE AVAILABLE IN ALL SIZES, DESIGNS AND MATERIALS. HOURLY CLASSIFICATIONS ARE NOT SHOWN ON LABEL UNLESS CLASS IS LESS THAN 3 HOURS.

PRODUCT SPECIFICATIONS:

Steel door frames shall be as manufactured by Ceco Door Products, Milan, TN or Mason City, IA USA. They shall conform to the Steel Door Institute guide specification, ANSI A250.8. See chart below for performance classifications.

Series SU frames for 1-3/4" doors are formed from commercial quality cold rolled steel conforming to ASTM A1008 ...or (optional) hot-dipped galvannealed or galvanized steel conforming to ASTM A924 and A653 - see chart below.

Frames are knocked down (K.D.) field assembled type or welded unit type. Head and jamb members of K.D. frames have diecut mitered corners that interlock rigidly when field assembled. Integral door stops are 5/8" high. Jambs are sized to suit wall applications. Twist-in anchors are available for new masonry, wood stud, metal stud, or existing opening wall conditions (indicate which). Floor anchors or extra jamb anchors are provided to anchor sill. Welded-in jamb anchors are also available.

Hardware Provisions: Frames are handed. Hinge jambs are mortised for 4-1/2" or 5" high, standard and heavy weight hinges (specify which). 7 gauge steel reinforcements are welded in place and are drilled and tapped for fasteners in accordance with ANSI A156.7. The strike jamb is prepared for 4-7/8" universal or 2-3/4" cylindrical strike in accordance with ANSI A115.1 &2 (specify which). Plaster guards are provided. Optional closer reinforcement is a 14 gauge steel formed steel sleeve (12 gauge upon request). 3 mute holes are provided per strike jamb and 2 for double swing heads.

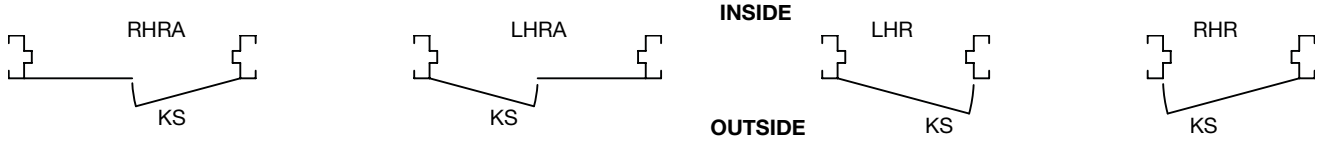
Paint: Steel door frames are provided with one coat of oven-cured neutral color primer paint. Primer coat shall conform with ANSI A250.10. The primer coat is a preparatory base for necessary finish painting. "Colorstyle" finish coat is also available on K.D. frames from a selection of standard colors (optional). Colorstyle finish is electrostatically applied, oven-cured urethane enamel, and shall conform to ANSI A250.3. For accurate color selectors ask for a Ceco Colorstyle chart.

MATERIAL

DOOR FRAME MATERIAL	LEVEL	C.R.	GALV	
			A60	G90
16 GAUGE STEEL	HEAVY OR EXTRA HEAVY DUTY	STD	OPT	OPT
14 GAUGE STEEL	MAXIMUM DUTY	STD	OPT	OPT

PERFORMANCE

PHYSICAL ENDURANCE LEVEL:	MEETS ANSI A250.4 PERFORMANCE TEST -- 16 & 14 GAUGE STEEL: LEVEL A (1,000,000 CYCLES)



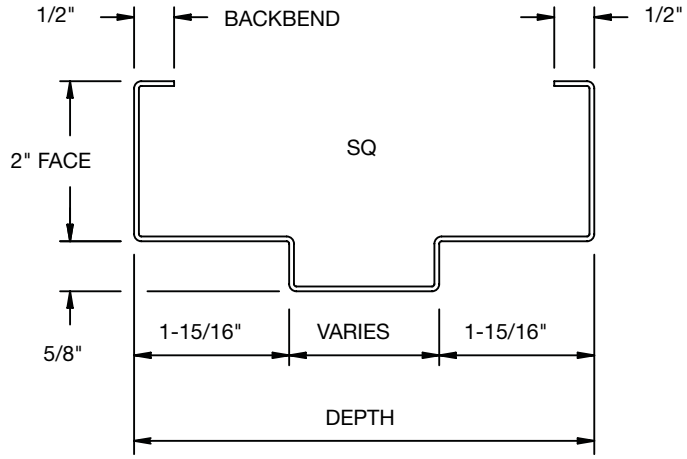
"KS"= KEY SIDE *"SUFFIX"A" = ACTIVE LEAF OF PAIRS*

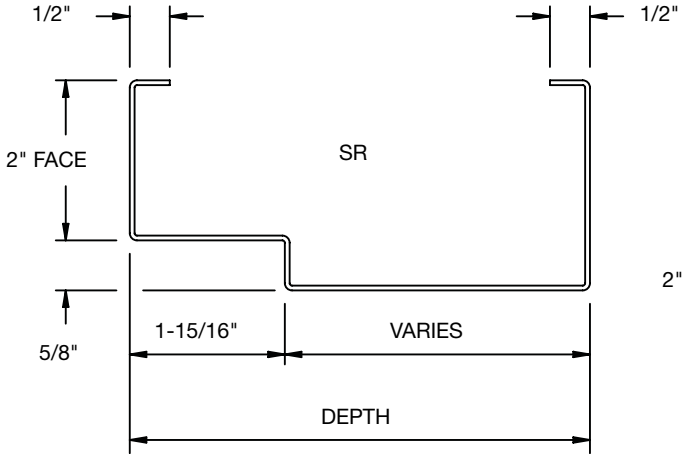
(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

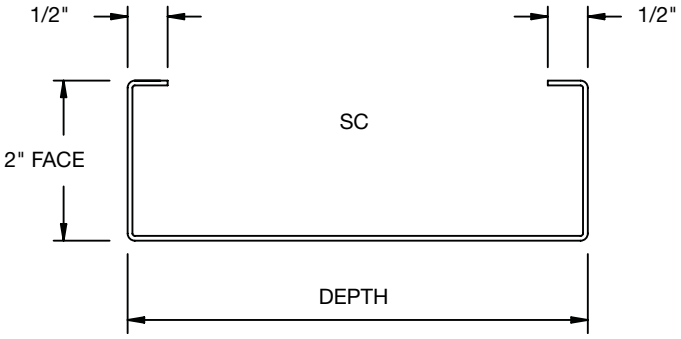
SERIES SQ, SR, AND SC STEEL FRAMES

FOR 1-3/4" DOORS STANDARD WALL APPLICATION, HANDED

** BASIC PROFILES*

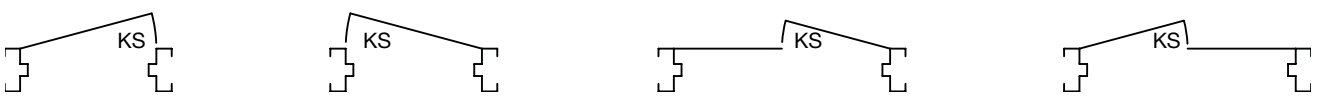






**DEPTH, FACE, SOFFIT, AND BACKBEND DIMENSIONS ARE VARIABLE (MADE TO ORDER) WITHIN LIMITS OF MATERIAL AND TOOLING. HARDWARE PREPARATIONS ARE FOR 1-3/4" THICK DOORS. RABBET DIMENSIONS AND HARDWARE PREPARATIONS TO SUIT OTHER DOOR THICKNESSES ARE ALSO AVAILABLE. BACKBENDS NEED NOT BE THE SAME ON OPPOSITE FACES OF BASIC PROFILE, BUT LIMITS OF MATERIAL AND/OR TOOLING MAY RESTRICT CERTAIN COMBINATIONS OF BACKBENDS AND OTHER PROFILE VARIATIONS. ARE AVAILABLE. PROFILES ARE NOT LIMITED TO THOSE SHOWN ...MANY OTHER DESIGNS AND COMBINATIONS ARE AVAILABLE.*

INSIDE



LH RH RHA LHA

OUTSIDE

"KS"= KEY SIDE

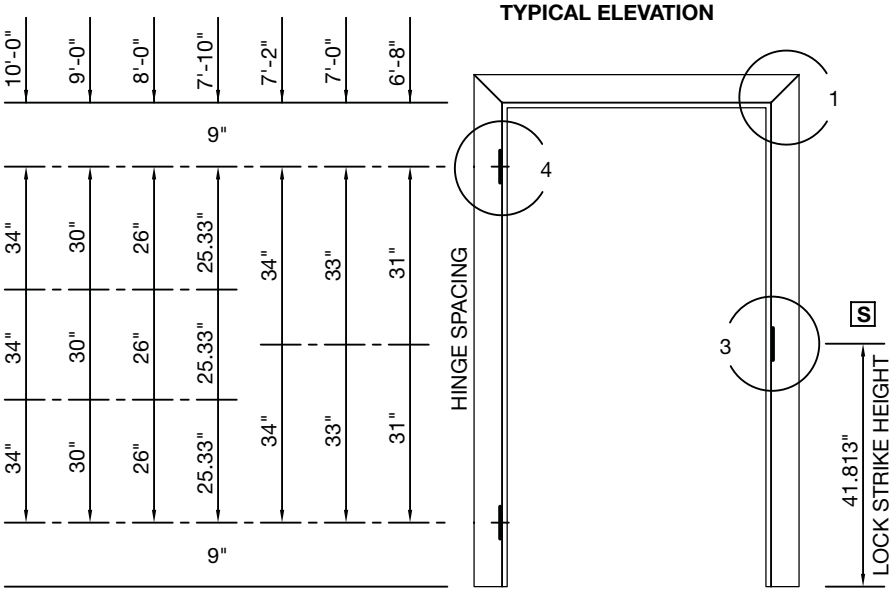
(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

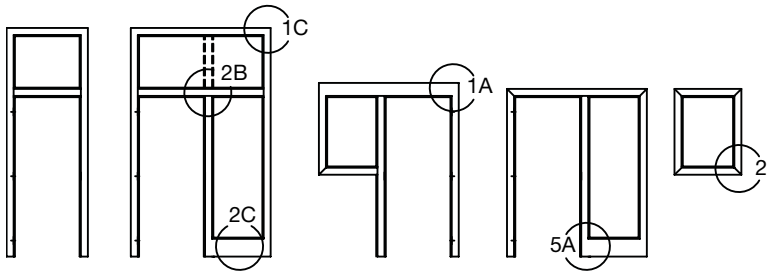
SERIES SQ, SR, AND SC STEEL FRAMES

HARDWARE LOCATIONS SHOWN MATCH CECO STANDARD DOORS. BASIC DOUBLE RABBET PROFILE SHOWN ... PROFILE VARIATIONS SIMILAR.

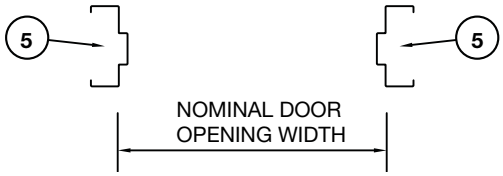
VERTICAL SECTION

TYPICAL ELEVATION





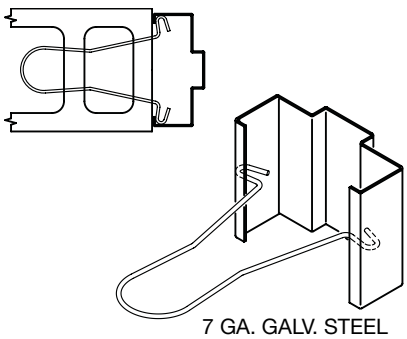
ELEVATION EXAMPLES



HORIZONTAL SECTION

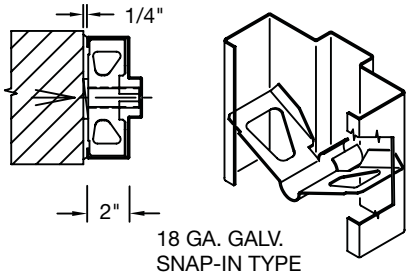
JAMB ANCHOR QUANTITIES	2 PER JAMB FOR HEIGHTS >3'6" THRU 5'0" AND ONE FLOOR ANCHOR 3 PER JAMB FOR HEIGHTS >5'0" THRU 7'2" AND ONE FLOOR ANCHOR 4 PER JAMB FOR HEIGHTS > 7'2" THRU 7'6" AND ONE FLOOR ANCHOR 5 PER JAMB FOR HEIGHTS >7'6" THRU 10'0" AND ONE FLOOR ANCHOR ONE ADDITIONAL JAMB ANCHOR FOR EACH ADDITIONAL TWO FEET IN HEIGHT OR FRACTION THEREOF ONE ADDITIONAL JAMB ANCHOR IN LIEU OF FLOOR ANCHOR FOR EXISTING STUDS AND/OR WALL CONDITIONS.

(5) WIRE MASONRY ANCHOR WMA



(FOR 3" THRU 8-3/4" DEPTHS)

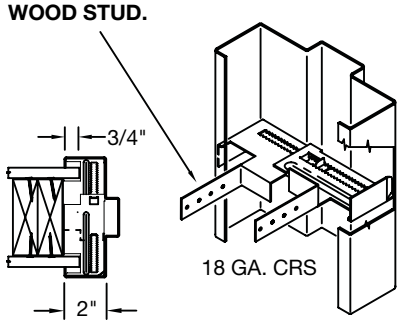
(5) EXISTING OPENING ANCHOR EO



SQ PROFILE *EO/S6: 5-1/8" THRU 6-3/4" DEPTH*
EO/S8: 6-7/8" THRU 8-3/4" DEPTH

(5) ADJUSTABLE ANCHOR FOR STUD WALLS ADJ/STUD

SETUP ANCHORS AND BEND TAILPIECES TO GRIP METAL OR WOOD STUD.

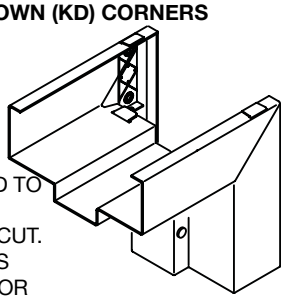


3-3/4" THRU 8-3/4" DEPTH

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

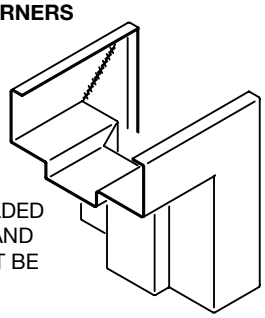
SERIES SQ, SR, AND SC STEEL FRAMES

1 KNOCKED DOWN (KD) CORNERS



NORMALLY LIMITED TO 3 PIECE FRAMES.
CORNERS ARE DIECUT.
HEAD AND 2 JAMBS ARE SHIPPED KD FOR FIELD ASSEMBLY.
SEE BACK OF SHEET FOR FACE LIMITATIONS.
ALSO AVAILABLE SETUP AND WELDED.

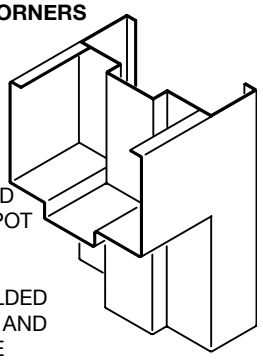
1C WELDED CORNERS



MITERED AND WELDED CORNER -- HEAD AND JAMB FACES MUST BE EQUAL

MITER SEAM IS WELDED AND FACE IS GROUND SMOOTH AND SPOT PRIMERED.

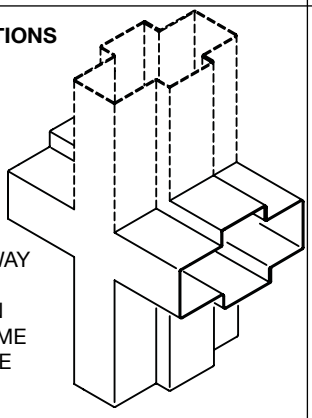
1A WELDED CORNERS



FACE SEAM IS WELDED, GROUND SMOOTH, AND SPOT PRIMERED.

BUTTED AND WELDED CORNER -- HEAD AND JAMBS MAY HAVE UNEQUAL FACES. TYPICALLY, JAMB RUNS THROUGH AND HEAD IS COPED.

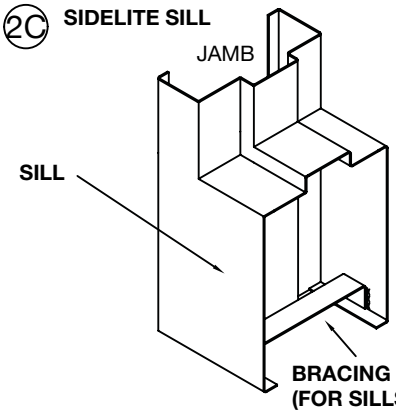
2B INTERSECTIONS



INTERSECTIONS MAY BE 3 OR 4-WAY (4-WAY SHOWN DOTTED) ... OPEN OR CLOSED FRAME PROFILES MAY BE USED.

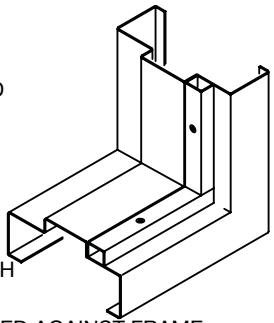
TYPICALLY. VERTICAL SECTIONS RUN THROUGH AND HORIZONTAL BARS ARE COPED. FACE SEAMS ARE WELDED, GROUND SMOOTH, AND SPOT PRIMERED.

2C SIDELITE SILL



FACE SEAM IS WELDED, GROUND SMOOTH, AND SPOT PRIMERED.

2 GLAZING PROVISIONS



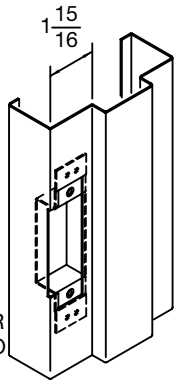
SIDELITES, TRANSOMS, AND BORROWED LITES ARE PROVIDED WITH 5/8" HIGH 18GA. GALV. STEEL GLAZING BEAD. FASTENERS ARE #8X18X1-1/2" POH TEK SCREWS.

BEAD IS INSTALLED AGAINST FRAME STOP WITH ONE SCREW AS STANDARD. BALANCE OF SCREWS ARE SHIPPED LOOSE.

GLASS AND GLAZING ARE BY GLAZING CONTRACTOR

3 LOCK STRIKE PREPARATION

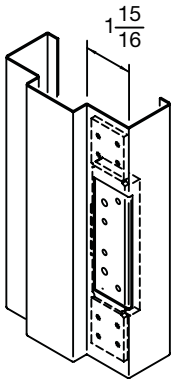
S



UNIVERSAL (4-7 /8") ANSI A115.1 & 2 TEMPLATE.
16 GAUGE STEEL REINFORCING WITH EXTRUDED THREADS EQUAL TO 14 GAUGE.

PREPARATIONS FOR OTHER MECHANICAL OR ELECTRONIC LOCKS, EXIT, OR SECURITY DEVICES ARE ALSO AVAILABLE. ASK FOR DETAILS.

4 HINGE PREPARATION

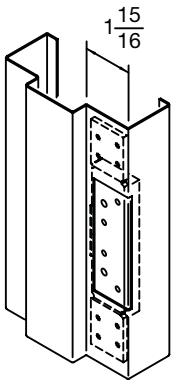


4-1/2" X .134" OR
4-1/2" X .180"
ANSI A156.7
TEMPLATE.
7 GAUGE STEEL
REINFORCEMENT.

PLASTER GUARD IS 26 GAUGE STEEL

BACKSET: 5/16"

4 HINGE PREPARATION

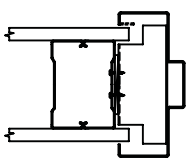


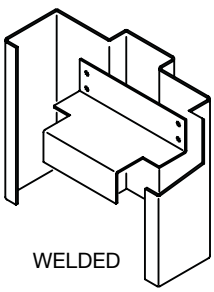
5" X .146" OR
5" X .190"
ANSI A156.7
TEMPLATE.
7 GAUGE STEEL
REINFORCEMENT.

PLASTER GUARD IS 26 GAUGE STEEL

BACKSET: 5/16"

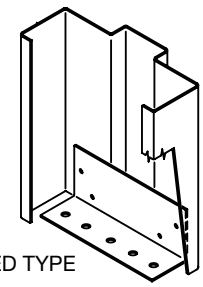
5 METAL STUD "Z" ANCHOR MSZ2





WELDED

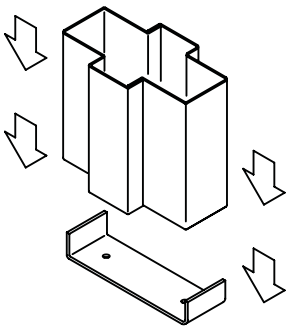
5 SPECIAL SIZE FLOOR ANCHOR SA



ONE PIECE

WELDED TYPE

5A SIDELITE FLOOR ANCHOR SLFA



(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

SERIES SQ, SR, AND SC STEEL FRAMES

STANDARD SIZES
NOMINAL DOOR OPENING

WIDTH		HEIGHT
SINGLE	DOUBLE	
2’-0”	4’-0”	
2’-4”	4’-8”	
2’-6”	5’-0”	6’-8”
2’-8”	5’-4”	7’-0”
2’-10”	5’-8”	7’-2”
3’-0”	6’-0”	7’-10”
3’-4”	6’-8”	8’-0”
3’-6”	7’-0”	9’-0”
3’-8”	7’-4”	10’-0”
3’-10”	7’-8”	
4’-0”	8’-0”	
5’-0”	10’-0”	

FIRE DOORS FRAMES

LABELING AGENCIES : UNDERWRITERS LABORATORY WARNOCK HERSEY FACTORY MUTUAL
TEST: UL 10C, UL 10B, UL 1784, & NFPA 252 **RATING:** 20 MIN, 3/4 HR, 1 HR, 1-1/2 HR, OR 3 HR **MAX. SIZE:** 4’0” X 10’0” SINGLE 8’0” X 10’0” PAIR *NOT ALL RATINGS ARE AVAILABLE IN ALL SIZES, DESIGNS AND MATERIALS. HOURLY CLASSIFICATIONS ARE NOT SHOWN ON LABEL UNLESS CLASS IS LESS THAN 3 HOURS.*

PRODUCT SPECIFICATIONS:

Steel door frames shall be as manufactured by Ceco Door Products, Milan, TN or Mason City, IA, USA. They shall conform to the Steel Door Institute guide specification, ANSI A250.8. See chart below for performance classifications.

Series SQ, SR, and SC frames for 1-3/4” doors are formed from commercial quality cold rolled steel conforming to ASTM A1008...or (optional) hot-dipped galvannealed or galvanized steel conforming to ASTM A924 and A653 - see chart below.

3 piece door frames are shipped knocked down or welded. Transoms, sidelites and borrowed lites are welded unit type with all exposed welds ground smooth. Oversize frames are shipped in multiple units for field splicing. Integral door stops are 5/8” high. Double rabbet (SQ), single rabbet (SR), or cased opening (SC) profiles are sized to suit wall applications. Elevations conform with approved Ceco shop drawings. Jamb anchors are available for new masonry, wood stud, metal stud or existing opening wall conditions (indicate which). Floor anchors or extra jamb anchors are provided to anchor sill.

Hardware Provisions: Frames are handed. Hinge jambs are mortised for 4-1/2” or 5” high, standard or heavy weight hinges (specify which). 7 gauge steel reinforcements are welded in place and are drilled and tapped for fasteners in accordance with ANSI A156.7. The strike jamb is prepared for 4-7/8” universal strike in accordance with ANSI A115.1 & 2. Plaster guards are 26 gauge steel. Preparations for various other mechanical and electronic locks and strikes are also available. Optional hardware reinforcement (e.g. closer/holder) is 14 gauge minimum steel welded in place (designate hardware). 3 mute holes are provided per strike jamb and 2 for double swing heads.

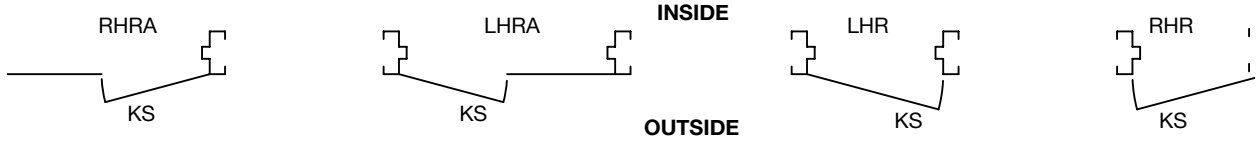
Paint: Steel door frames are provided with one coat of oven-cured neutral color primer paint. Primer coat shall conform with ANSI A250.10 . The primer coat is a preparatory base for necessary finish painting. “Colorstyle” finish coat is also available on K.D. frames from a selection of standard colors (optional). Colorstyle finish is electrostatically applied, oven-cured urethane enamel, and shall conform to ANSI A250.3. For accurate color selectors ask for a Ceco Colorstyle chart.

MATERIAL

DOOR FRAME MATERIAL	LEVEL	C.R.	GALV	
			A60	G90
16 GAUGE STEEL	HEAVY OR EXTRA HEAVY DUTY	STD	OPT	OPT
14 GAUGE STEEL	MAXIMUM DUTY	STD	OPT	OPT

PERFORMANCE

PHYSICAL ENDURANCE LEVEL:	MEETS ANSI A250.4 PERFORMANCE TEST -- 16 & 14 GAUGE STEEL: LEVEL A (1,000,000 CYCLES)

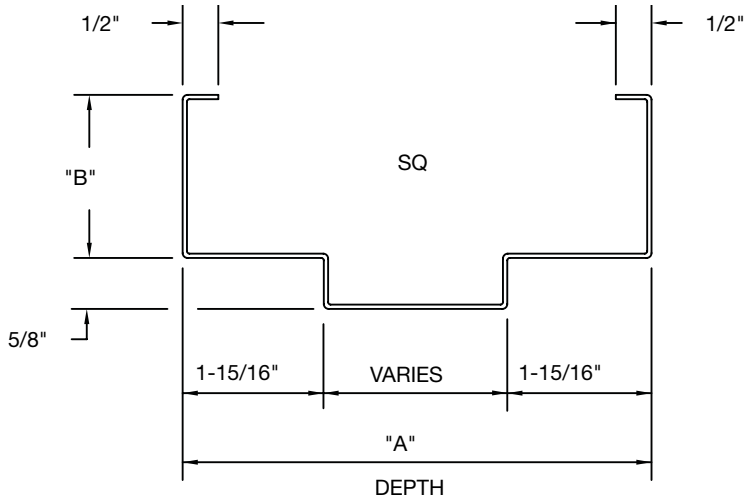


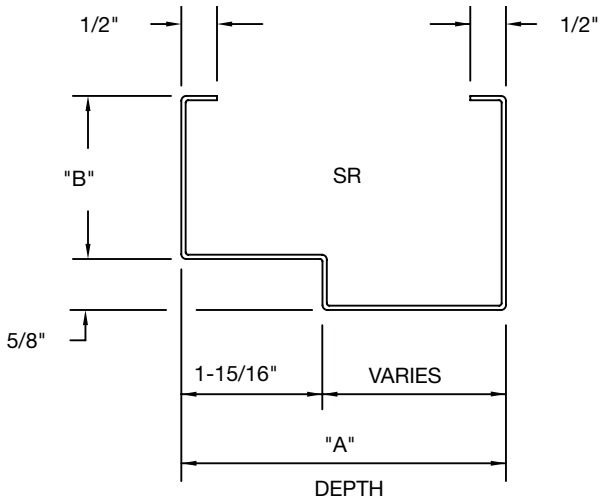
“KS”= KEY SIDE *“SUFFIX”A” = ACTIVE LEAF OF PAIRS*

(CONVERSION: 1” = 25.4 MM, E.G., 1-3/4” = 44.45 MM)

SERIES SQ, 12 GAUGE STEEL FRAMES

FOR 1-3/4" THICK DOORS - STANDARD WALL APPLICATION, HANDED

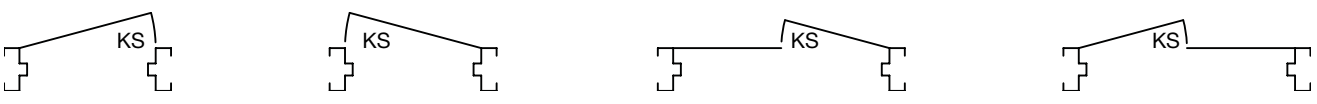




DEPTH	DIM A
DOUBLE RABBET	5-1/4" THRU 11-7/8"
SINGLE RABBET	3-3/4" THRU 6"

FACES	DIM B
JAMB	1", 2" OR 8"
HEAD	2" OR 4"

INSIDE



OUTSIDE

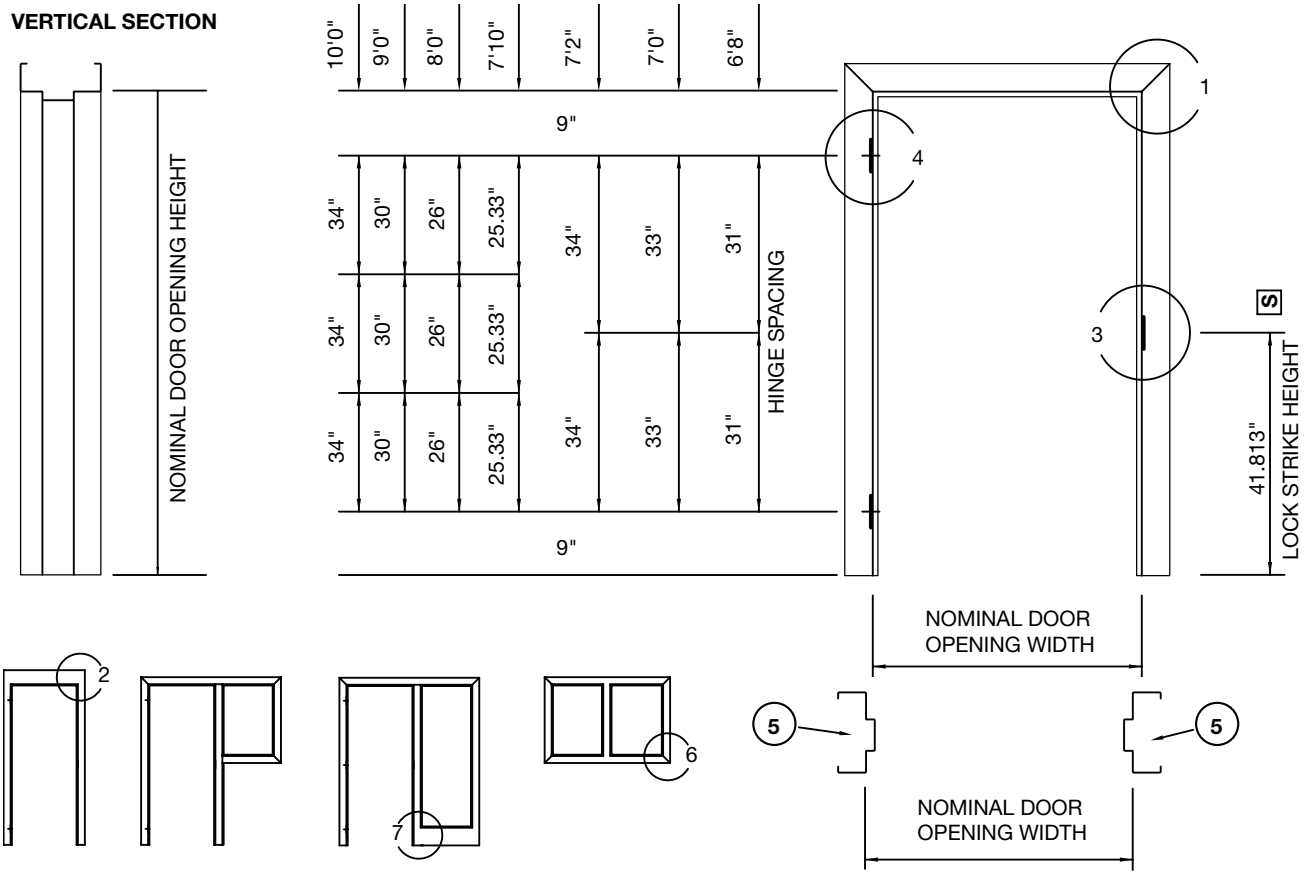
"KS"= KEY SIDE

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

SERIES SQ, 12 GAUGE STEEL FRAMES

HARDWARE LOCATIONS SHOWN MATCH CECO STANDARD DOORS.

VERTICAL SECTION



ELEVATION EXAMPLES

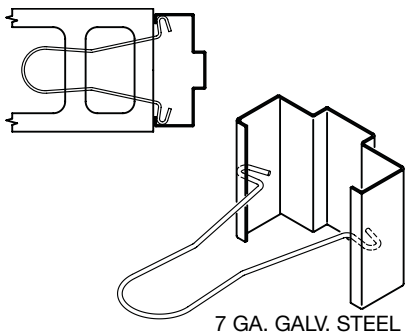
HORIZONTAL SECTION

JAMB ANCHOR QUANTITIES

2 PER JAMB FOR HEIGHTS >3'6" THRU 5'0" AND ONE FLOOR ANCHOR
3 PER JAMB FOR HEIGHTS >5'0" THRU 7'2" AND ONE FLOOR ANCHOR
4 PER JAMB FOR HEIGHTS > 7'2" THRU 7'6" AND ONE FLOOR ANCHOR
5 PER JAMB FOR HEIGHTS > 7'6" THRU 10'0" AND ONE FLOOR ANCHOR

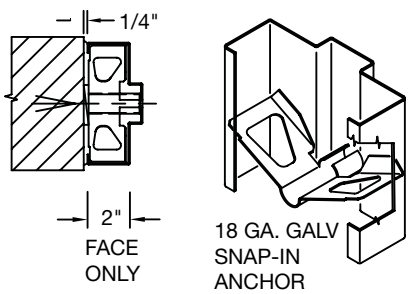
ONE ADDITIONAL JAMB ANCHOR FOR EACH ADDITIONAL TWO FEET IN HEIGHT OR FRACTION THEREOF
ONE ADDITIONAL JAMB ANCHOR IN LIEU OF FLOOR ANCHOR FOR EO CONDITIONS

(5) WIRE MASONRY ANCHOR WMA



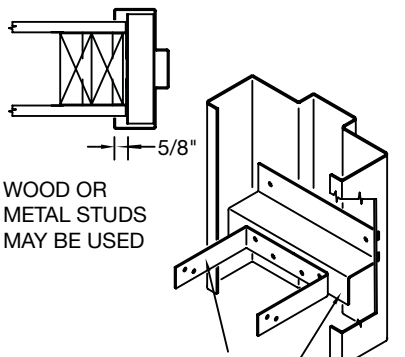
(FOR 3-3/4" THRU 8-3/4" DEPTHS)

(5) EXISTING OPENING ANCHOR EO



SQ PROFILE
EO/SF6: 5-1/8" THRU 6-3/4" DEPTH
EO/SF8: 6-7/8" THRU 8-3/4" DEPTH

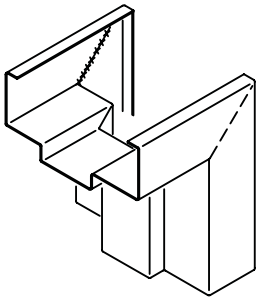
(5) WOOD STUD "Z" STRAP ANCHOR WSZS



WOOD OR METAL STUDS MAY BE USED

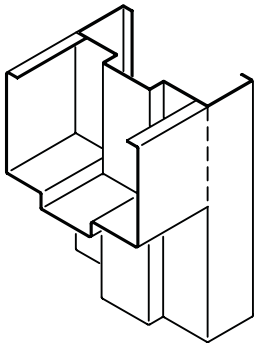
SERIES SQ, 12 GAUGE STEEL FRAMES

1 WELDED CORNERS TYPE V5



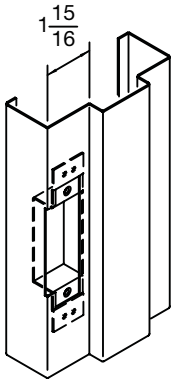
MITERED AND WELDED
CORNER -- HEAD
AND JAMB FACES
MUST BE EQUAL

2 WELDED CORNERS TYPE V6



BUTTED AND WELDED
CORNER -- HEAD AND
JAMB HAVE UNEQUAL
FACES. JAMB RUNS
THROUGH AND HEAD
IS COPED.

3 LOCK STRIKE PREPARATION

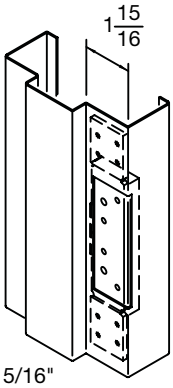


s

UNIVERSAL (4-7 /8")
ANSI A115.1 & 2 TEMPLATE
16 GAUGE STEEL REINFORCING
WITH EXTRUDED THREADS
EQUAL TO 14 GAUGE.

PREPARATIONS FOR VARIOUS
MECHANICAL AND ELECTRONIC
SECURITY DEVICES ARE ALSO
AVAILABLE. ASK FOR DETAILS.

4 HINGE PREPARATION

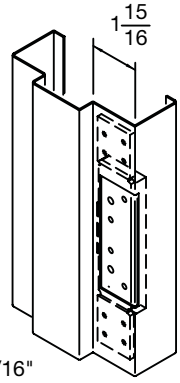


5" X .190"
ANSI A156. 7 TEMPLATE

7 GAUGE STEEL
REINFORCING

BACKSET: 5/16"

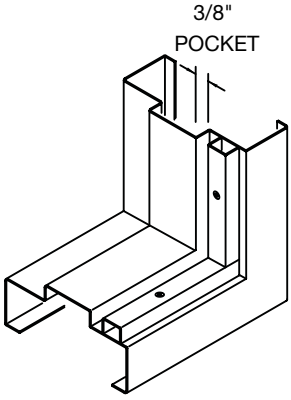
4 HINGE PREPARATION



4-1/2" X .180"
ANSI A156. 7 TEMPLATE
7 GAUGE STEEL
REINFORCING

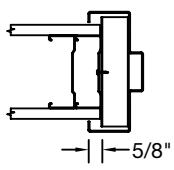
BACKSET: 5/16"

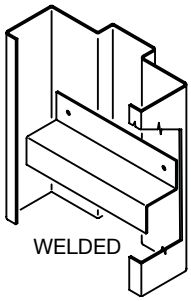
6 GLAZING PROVISIONS



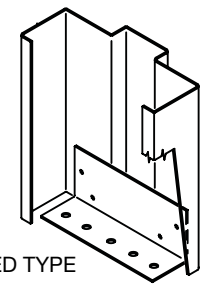
SIDELITES AND BORROWED
LITES ARE PROVIDED WITH 5/8"
HIGH STEEL GLAZING BEAD.
BEAD IS ATTACHED BY
#10 FHSMS.
GLASS AND GLAZING
IS BY GLAZING CONTRACTOR.

5 METAL STUD "Z" ANCHOR MSZ1



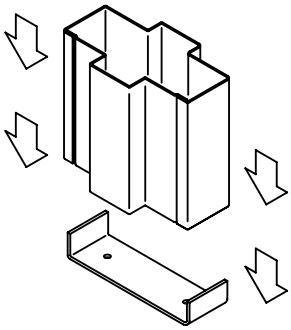


5 FIXED FLOOR ANCHOR SA



ONE PIECE

7 SIDELITE FLOOR ANCHOR SLFA



SERIES SQ, 12 GAUGE STEEL FRAMES

STANDARD SIZES
NOMINAL DOOR OPENING

WIDTH		HEIGHT
SINGLE	DOUBLE	
2'-0"	4'-0"	
2'-4"	4'-8"	
2'-6"	5'-0"	6'-8"
2'-8"	5'-4"	7'-0"
2'-10"	5'-8"	7'-2"
3'-0"	6'-0"	7'-10"
3'-4"	6'-8"	8'-0"
3'-6"	7'-0"	9'-0"
3'-8"	7'-4"	10'-0"
3'-10"	7'-8"	
4'-0"	8'-0"	

FIRE DOOR FRAMES

LABELING AGENCIES : UL SOLUTIONS WARNOCK HERSEY FACTORY MUTUAL
TEST: UL 10C, UL 10B, UL 1784, & NFPA 252 **RATING:** 20 MIN, 3/4 HR, 1 HR, 1-1/2 HR, OR 3 HR **MAX. SIZE:** 4'0" X 10'0" SINGLE 8'0" X 10'0" PAIR *NOT ALL RATINGS ARE AVAILABLE IN ALL SIZES, DESIGNS AND MATERIALS. HOURLY CLASSIFICATIONS ARE NOT SHOWN ON LABEL UNLESS CLASS IS LESS THAN 3 HOURS.*

PRODUCT SPECIFICATIONS:

Steel door frames shall be as manufactured by Ceco Door Products, Milan, TN or Mason City, IA, USA. They shall conform to the Steel Door Institute guide specification, ANSI A250.8. See chart below for performance classifications.

Series SQ 12 gauge steel frames for 1-3/4" doors are formed from commercial quality cold rolled steel conforming to ASTM A1008...or (optional) hot-dipped galvannealed or galvanized steel conforming to ASTM A924 and A653 - see chart below.

Door frames, sidelites and borrowed lites are welded unit type with all exposed welds ground smooth. Integral door stops are 5/8" high. Double rabbet or single rabbet profiles are sized to suit wall applications. Jamb anchors are available for new masonry, wood stud, metal stud or existing opening wall conditions (indicate which). Floor anchors or extra jamb anchors are provided to anchor sill.

Hardware Provisions: Frames are handed. Hinge jambs are mortised for 4-1/2" or 5" high, heavy weight hinges (specify which). 7 gauge steel reinforcements are welded in place and are drilled and tapped for fasteners in accordance with ANSI A156.7. The strike jamb is prepared for 4-7/8" universal strike in accordance with ANSI A115.1 & 2. Plaster guards are provided. Preparations for various other mechanical and electronic locks and strikes are also available. Optional hardware reinforcement (e.g. closer/holder) is 14 gauge minimum steel welded in place (designate hardware). 3 mute holes are provided per strike jamb and 2 for double swing heads.

Paint: Steel door frames are provided with one coat of oven-cured neutral color primer paint. Primer coat shall conform with ANSI A250.10. The primer coat is a preparatory base for necessary finish painting.

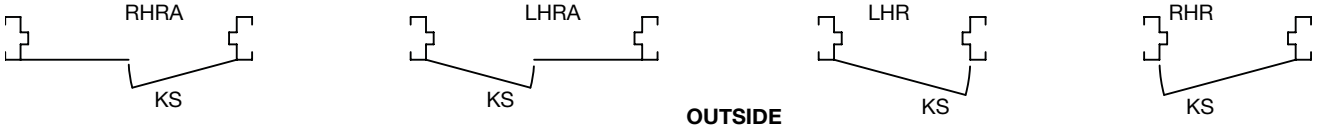
MATERIAL

DOOR FRAME MATERIAL	LEVEL	C.R.	GALV
			A60
12 GAUGE STEEL	ANSI / NAAMM	STD	OPT

PERFORMANCE

PHYSICAL ENDURANCE LEVEL:	MEETS ANSI A250.4 PERFORMANCE TEST, LEVEL A (1,000,000 CYCLES)

INSIDE



OUTSIDE

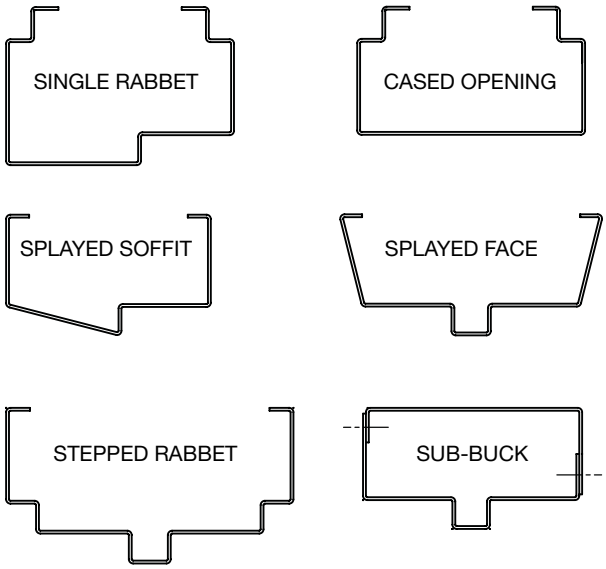
"KS"= KEY SIDE *"SUFFIX"A" = ACTIVE LEAF OF PAIRS*

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

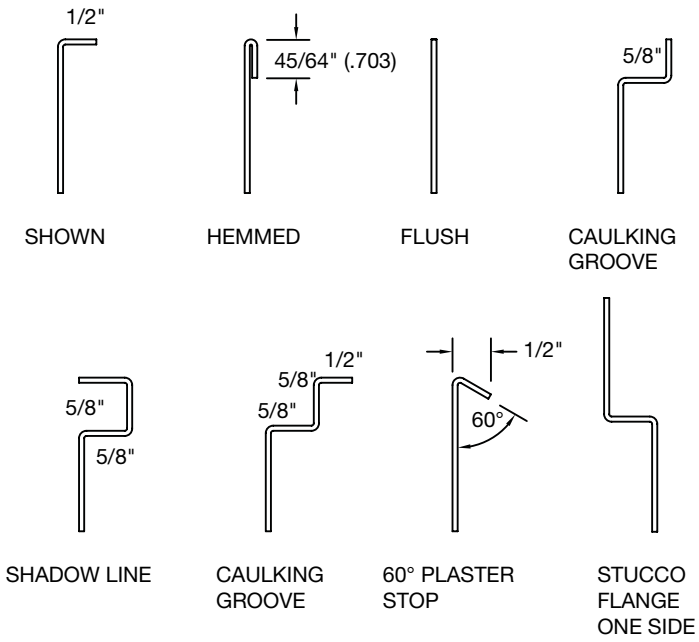
SERIES C CUSTOM FRAME PROFILES

FOR 1-3/4" THICK DOORS - STANDARD WALL FRAME APPLICATION, HANDED

PROFILE VARIATIONS



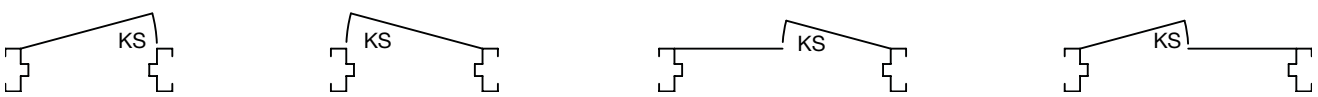
BACKBEND VARIATIONS



SEE PAGE 18 FOR OTHER PROFILES.

DEPTH, FACE, SOFFIT, STOP HEIGHT, RABBETS AND BACKBEND DIMENSIONS ARE VARIABLE (MADE TO ORDER) WITHIN LIMITS OF MATERIAL AND TOOLING. HARDWARE PREPARATIONS ARE FOR 1-3/4" THICK DOORS. RABBET DIMENSIONS AND HARDWARE PREPARATIONS TO SUIT OTHER DOOR THICKNESSES ARE ALSO AVAILABLE. BACKBENDS NEED NOT BE THE SAME ON OPPOSITE FACES OF BASIC PROFILE, BUT LIMITS OF MATERIAL AND/OR TOOLING MAY RESTRICT CERTAIN COMBINATIONS OF BACKBENDS AND OTHER PROFILE VARIATIONS. PROFILES ARE NOT LIMITED TO THOSE SHOWN ...MANY OTHER DESIGNS AND COMBINATIONS ARE AVAILABLE.

INSIDE



OUTSIDE

"KS"= KEY SIDE

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

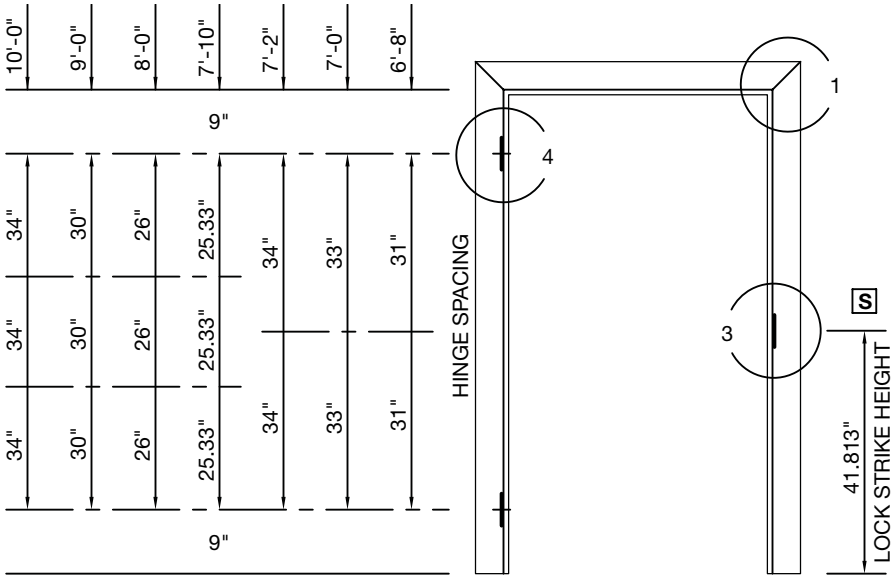
SERIES C CUSTOM FRAME PROFILES

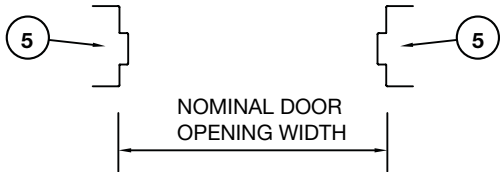
HARDWARE LOCATIONS SHOWN MATCH CECO STANDARD DOORS.

REFER TO PAGE 12 FOR
CONSTRUCTION
DETAILS OF ITEMS 1,3,4 & 5.

VERTICAL SECTION

TYPICAL ELEVATION

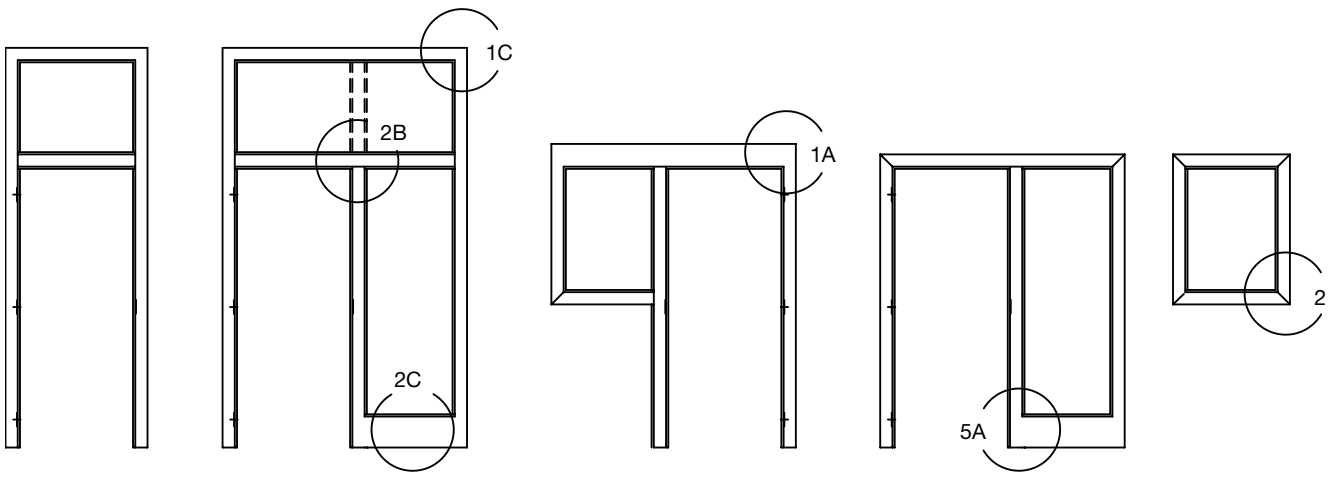




HORIZONTAL SECTION

ELEVATION EXAMPLES

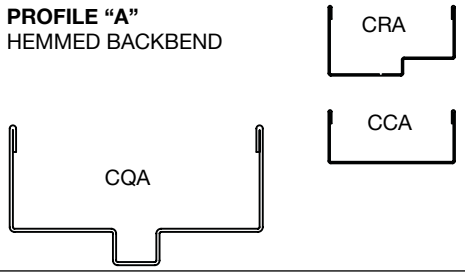
REFER TO PAGE 12 FOR
CORNER CONSTRUCTION DETAILS



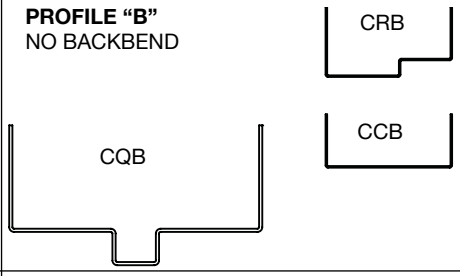
(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

SERIES C CUSTOM FRAME PROFILES

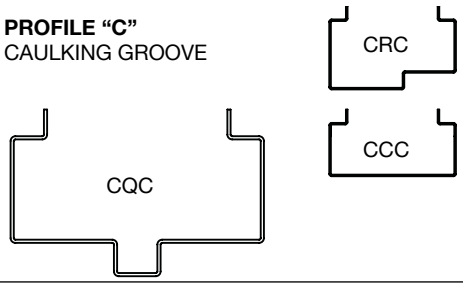
PROFILE "A"
HEMMED BACKBEND



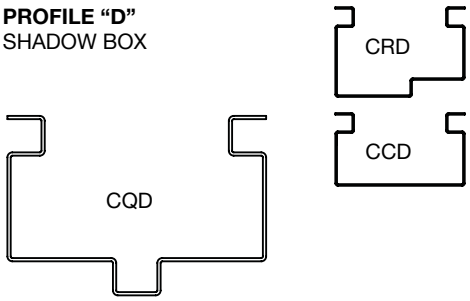
PROFILE "B"
NO BACKBEND



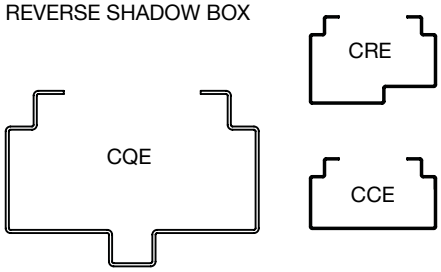
PROFILE "C"
CAULKING GROOVE



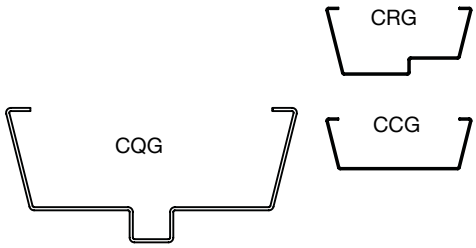
PROFILE "D"
SHADOW BOX



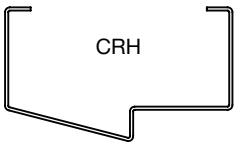
PROFILE "E"
REVERSE SHADOW BOX



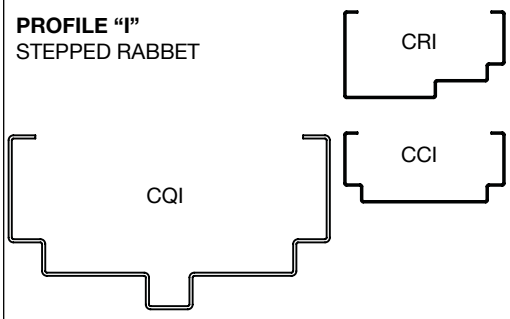
PROFILE "G"
SPLAYED FACE



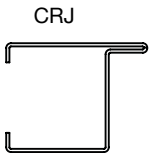
PROFILE "H"
SPLAYED SOFFIT



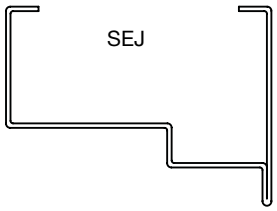
PROFILE "I"
STEPPED RABBET



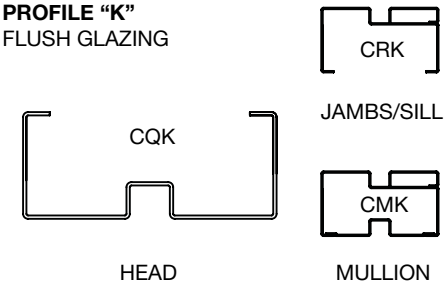
PROFILE "J"
HEMMED STOP



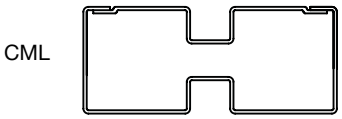
PROFILE "SEJ"
HEMMED STOP



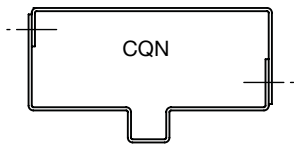
PROFILE "K"
FLUSH GLAZING



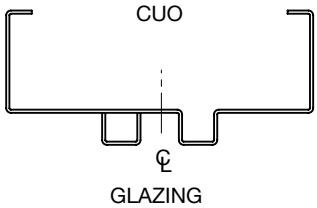
PROFILE "L"
FLUSH GLAZING - MULLION



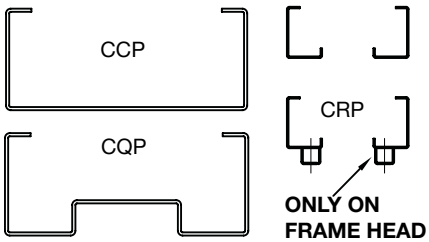
PROFILE "N"
ROUGH BUCK W / SLIP
JAMBS SUB BUCK



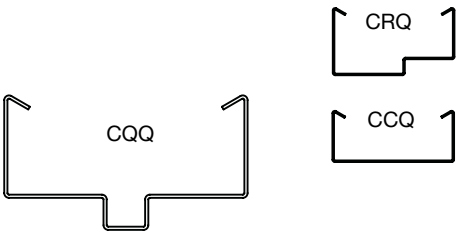
PROFILE "O"
CENTER GLAZED



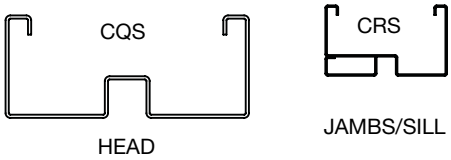
PROFILE "P"
POCKET SLIDE DOOR FRAME



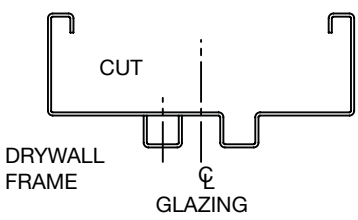
PROFILE "Q"
60' FLUSH PLASTER GROOVE



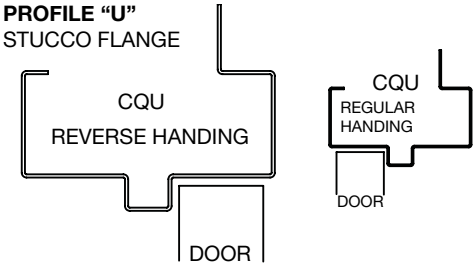
PROFILE "S"
FLUSHED GLAZED DRYWALL CONDITION



PROFILE "T"
CENTER GLAZED DRYWALL CONDITION



PROFILE "U"
STUCCO FLANGE



(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

SERIES C CUSTOM FRAME PROFILES

STANDARD SIZES
NOMINAL DOOR OPENING

WIDTH		HEIGHT
SINGLE	DOUBLE	
2'-0"	4'-0"	
2'-4"	4'-8"	
2'-6"	5'-0"	6'-8"
2'-8"	5'-4"	7'-0"
2'-10"	5'-8"	7'-2"
3'-0"	6'-0"	7'-10"
3'-4"	6'-8"	8'-0"
3'-6"	7'-0"	9'-0"
3'-8"	7'-4"	10'-0"
3'-10"	7'-8"	
4'-0"	8'-0"	

FIRE DOORS FRAMES

LABELING AGENCIES :
UL SOLUTIONS
WARNOCK HERSEY

TEST: UL 10C, UL 10B, UL 1784, & NFPA 252

RATING: 20 MIN, 3/4 HR, 1 HR, 1-1/2 HR, OR 3 HR

MAX. SIZE: 4'0" X 10'0" SINGLE
8'0" X 10'0" PAIR

NOT ALL RATINGS ARE AVAILABLE IN ALL SIZES, ELEVATIONS AND MATERIALS.

PRODUCT SPECIFICATIONS:

Steel door frames shall be as manufactured by Ceco Door Products, Milan, TN, USA. They shall conform to the Steel Door Institute guide specification, ANSI A250.8. See chart below for performance classifications.

Series C Custom Profile frames for 1-3/4" doors are formed from commercial quality cold rolled steel conforming to ASTM A1008...or (optional) hot-dipped galvannealed or galvanized steel conforming to ASTM A924 and A653 - see chart below.

3 piece door frames are shipped knocked down or welded. Transoms, sidelites and borrowed lites are welded unit type with all exposed welds ground smooth. Oversize frames are shipped in multiple units for field splicing. Integral door stops are 5/8" high. Double rabbet, single rabbet, or cased opening profiles are sized to suit wall applications. Elevations conform with approved Ceco shop drawings. Jamb anchors are available for new masonry, wood stud, metal stud or existing opening wall conditions (indicate which). Floor anchors or additional jamb anchors are provided to anchor sill.

Hardware Provisions: Frames are handed. Hinge jambs are mortised for 4-1/2" or 5" high, standard or heavy weight hinges (specify which). 7 gauge steel reinforcements are welded in place and are drilled and tapped for fasteners in accordance with ANSI A156.7. The strike jamb is prepared for 4-7/8" universal strike in accordance with ANSI A115.1 & 2. Plaster guards are 26 gauge steel. Preparations for various other mechanical and electronic locks and strikes are also available. Optional hardware reinforcement (e.g. closer/holder) is 14 gauge minimum steel welded in place (designate hardware). 3 mute holes are provided per strike jamb and 2 in double swing heads.

Paint: Steel door frames are provided with one coat of oven-cured neutral color primer paint. Primer coat shall conform with ANSI A250.10. The primer coat is a preparatory base for necessary finish painting.

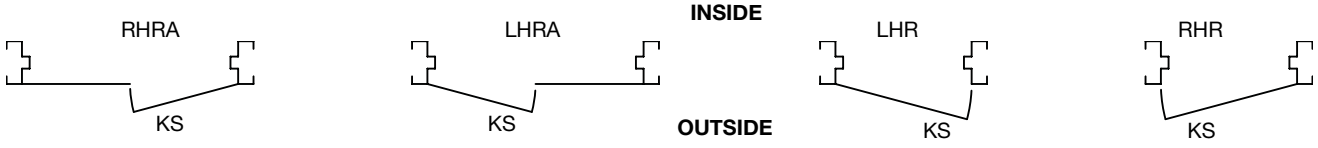
MATERIAL

DOOR FRAME MATERIAL	LEVEL	C.R.	GALV	
			A60	G90
16 GAUGE STEEL	HEAVY OR EXTRA HEAVY DUTY	STD	OPT	OPT
14 GAUGE STEEL	MAXIMUM DUTY	STD	OPT	OPT
12 GAUGE STEEL	ANSI/NAAMM	STD	OPT	-

**PROFILES THAT ARE NOT AVAILABLE IN 12 GAUGE: A, H, J, L, & Q*

PERFORMANCE

PHYSICAL ENDURANCE LEVEL:	MEETS ANSI A250.4 PERFORMANCE TEST -- 16, 14, & 12 GAUGE STEEL: LEVEL A (1,000,000 CYCLES)

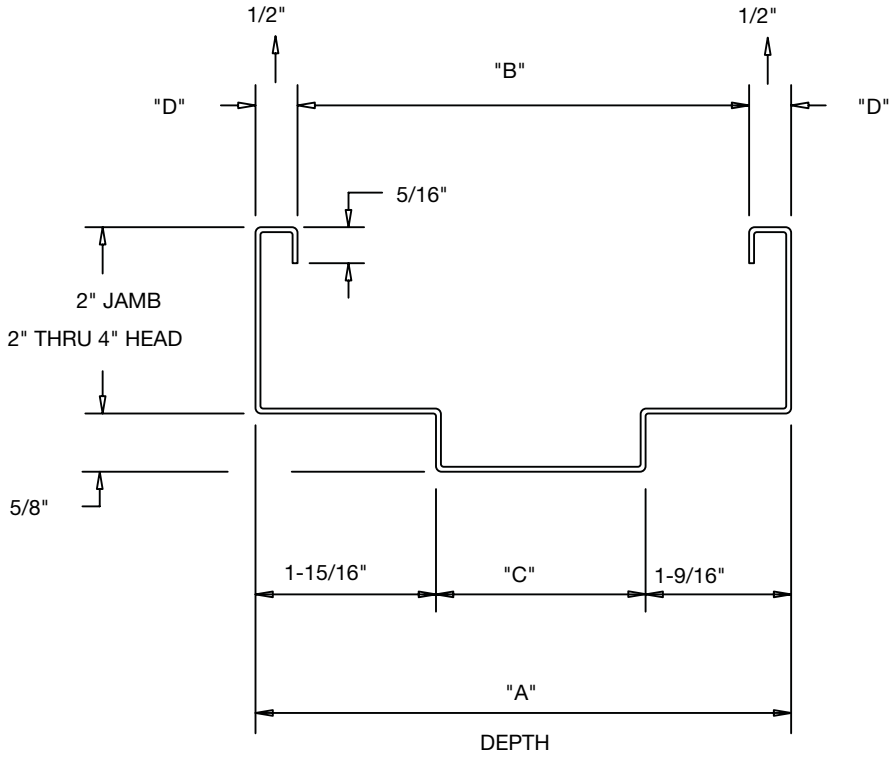


"KS"= KEY SIDE *"SUFFIX"A" = ACTIVE LEAF OF PAIRS*

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

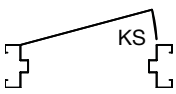
SERIES DU SLIP-ON DRYWALL FRAMES

FOR 1-3/4" THICK DOORS HANDED

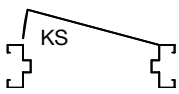


DEPTHS RANGING FROM 4-1/2" TO 14" ARE AVAILABLE.
DIMENSION "D" IS AVAILABLE IN 7/16", 9/16", & 5/8" ON CUSTOM DESIGNS.

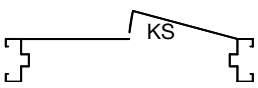
INSIDE



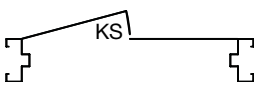
LH



RH



RHA



LHA

OUTSIDE

SUFFIX "A" = ACTIVE LEAF OF PAIRS

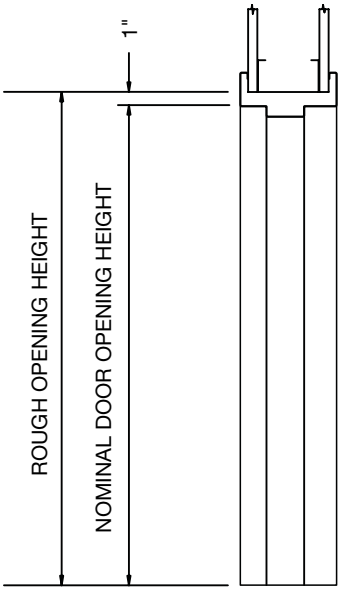
"KS" = KEY SIDE

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

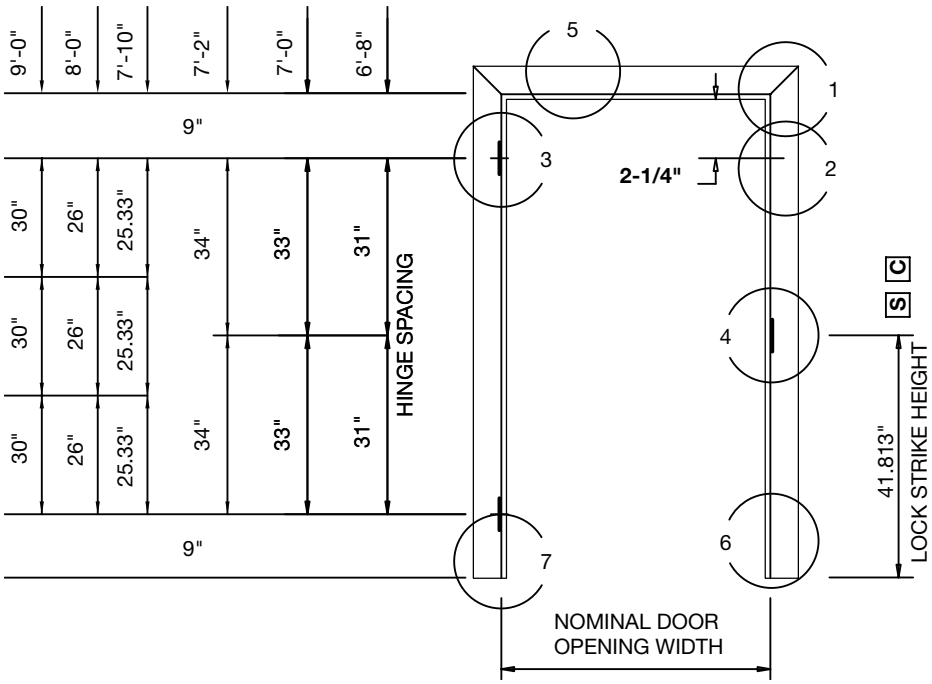
SERIES DU DRYWALL FRAMES

HARDWARE LOCATIONS SHOWN MATCH CECO STANDARD DOORS.

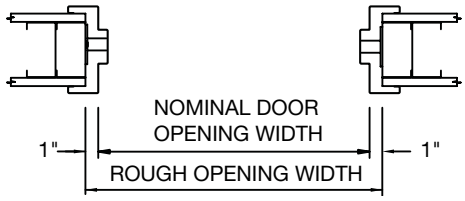
VERTICAL SECTION



ELEVATION

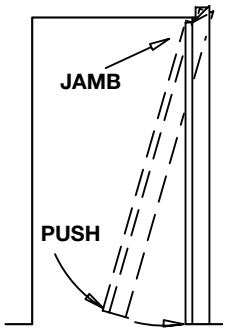


INSTALLATION INSTRUCTIONS
ROUGH OPENING:
DOOR OPENING WIDTH PLUS 2"
DOOR OPENING HEIGHT PLUS 1"



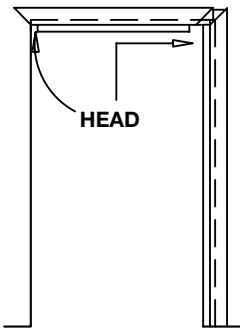
HORIZONTAL SECTION

STEP 1



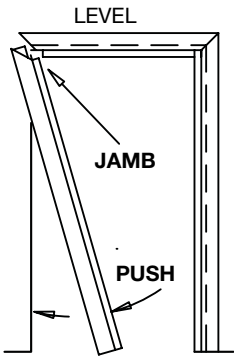
A. PUSH TOP OF ONE JAMB OVER THE WALL.
B. HOLD TOP OF JAMB IN PLACE, THEN PUSH BOTTOM IN TOWARDS AND OVER WALL.

STEP 2



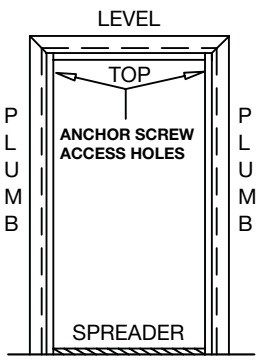
A. POSITION FRAME HEAD OVER THE WALL.
B. ALIGN HEAD TABS WITH JAMB SLOTS, THEN SLIDE HEAD TOWARD JAMB AND ENGAUGE TABS IN SLOTS.

STEP 3



A. PUSH TOP OF REMAINING JAMB OVER WALL AND MATE TABS IN SLOTS.
B. PUSH BOTTOM OF JAMB IN TOWARDS AND OVER WALL.
C. LEVEL HEAD.

STEP 4

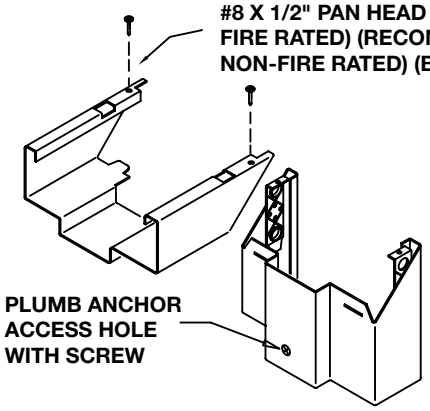


A. ADJUST PLUMB ANCHORS WITH SCREWDRIVER.
B. INSERT (4) #8 X 1/2" MIN. PHSMS THROUGH HOLES IN HEAD BACKBENDS AND FASTEN TO JAMB MITER GUIDES. (REQUIRED FOR LABELED FRAMES)
C. PLUMB HINGE JAMB AND ANCHOR SILL.
D. WITH TEMPORARY SPREADER, ADJUST STRIKE JAMB AND ANCHOR SILL.
E. INSTALL MUTES.

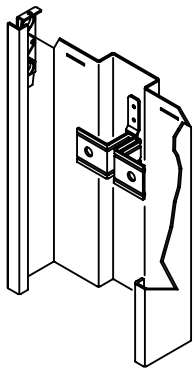
(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

SERIES DU DRYWALL FRAMES

1 KNOCKED DOWN CORNER CONSTRUCTION



2 ADJUSTABLE PLUMB ANCHOR

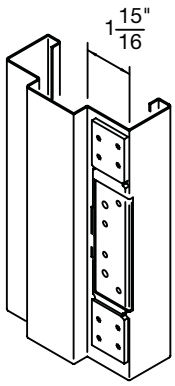


ONE EACH JAMB FOR OPENING HEIGHTS THRU 7'2". ONE ADDITIONAL FOR OPENING HEIGHTS > 7'2".

ADJUST WITH SCREWDRIVER

DUAL PLUMB ANCHORS ARE APPLIED IN DEPTHS GREATER THAN 8-3/4".

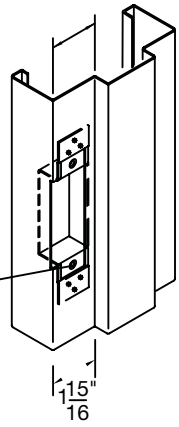
3 HINGE PREPARATION



4-1/2" X .134" OR 4-1/2" X .180"
ANSI A156.7 TEMPLATE
7 GAUGE STEEL
REINFORCING

BACKSET: 5/16"

4 STRIKE PREPARATION

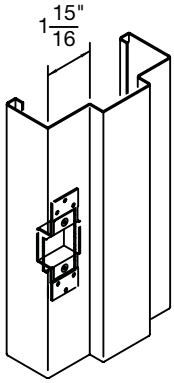


S

UNIVERSAL (4-7/8")
ANSI A115.1 & 2 TEMPLATE

12 GAUGE STEEL REINFORCING
STANDARD FOR 1-3/4" DOORS

4 LOCK STRIKE PREPARATION

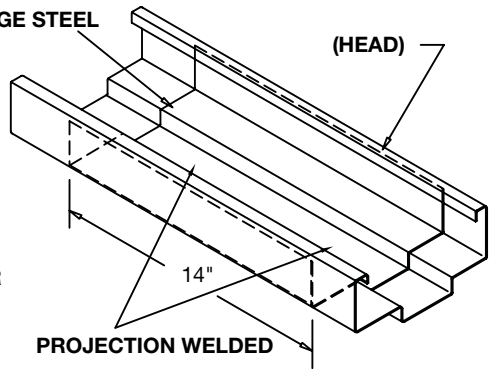


C

CYLINDRICAL (2-3/4")
ANSI A115.3 TEMPLATE
16 GAUGE STEEL REINFORCING
WITH EXTRUDED SCREW HOLES
PROVIDES EQUIVALENT SCREW
ENGAUGEMENT EQUAL TO 14 GAUGE

ALSO AVAILABLE WITHOUT
LIP CUTOUT FOR DEADLOCKS

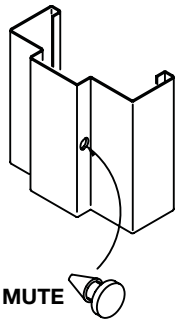
5 CLOSER REINFORCEMENT (OPTIONAL)



FULL DEPTH CLOSER
REINFORCEMENT
(SHOWN)

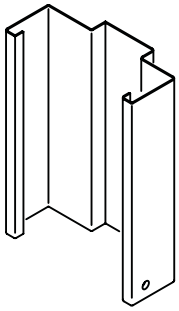
HALF SLEEVE OR
PLATE ALSO AVAILABLE

DOOR SILENCER (MUTE)



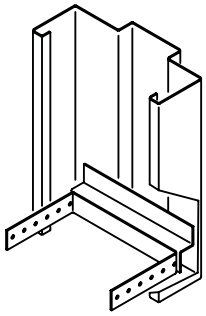
RUBBER MUTE
(3) / STRIKE JAMB
(2) / DOUBLE
SWING HEAD

6 STANDARD SILL ANCHOR



DIMPLED HOLE
FOR #10 FH FASTENER.
FASTENERS ARE BY
CONTRACTOR AND
MUST BE LONG ENOUGH
TO ENGAUGE STUD.

7 OPTIONAL SILL STRAP ANCHOR



FASTENERS ARE BY
CONTRACTOR AND
ENGAUGE STUD

ONE PIECE

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

SERIES DU DRYWALL FRAMES

STANDARD SIZES
NOMINAL DOOR OPENING

WIDTH		HEIGHT
SINGLE	DOUBLE	
2'-0"	4'-0"	
2'-4"	4'-8"	
2'-6"	5'-0"	6'-8"
2'-8"	5'-4"	7'-0"
2'-10"	5'-8"	7'-2"
3'-0"	6'-0"	7'-10"
3'-4"	6'-8"	8'-0"
3'-6"	7'-0"	9'-0"
3'-8"	7'-4"	
3'-10"	8'-0"	
4'-0"		

FIRE DOOR FRAMES

LABELING AGENCIES :
UL SOLUTIONS
WARNOCK HERSEY
FACTORY MUTUAL

TEST: UL 10C, UL 10B, UL 1784, & NFPA 252

RATING: 20 MIN, 3/4 HR, 1 HR OR 1-1/2 HR

MAX. SIZE: 14 GAUGE STEEL
16 GAUGE STEEL
4'0" X 9'0" SINGLE
8'0" X 9'0" PAIR

18 GAUGE STEEL
4'0" X 7'0" SINGLE
6'10" X 7'0" PAIR

NOT ALL RATINGS ARE AVAILABLE IN ALL SIZES, DESIGNS AND MATERIALS.

PRODUCT SPECIFICATIONS:

Steel door frames shall be as manufactured by Ceco Door, Milan, TN or Mason City, IA, USA. They shall conform to the Steel Door Institute guide specification, ANSI A.250.8-1998. See chart below for performance classifications.

Series DU frames for 1-3/4" doors are formed from commercial quality cold rolled steel conforming to ASTM A1008 ...or (optional) hot-dipped galvannealed or galvanized steel conforming to ASTM A924 and A653 - see chart below.

Frames are knocked down, field assembled type. Components have diecut mitered corners that interlock rigidly when field assembled. Integral door stops are 5/8" high and frame faces are 2". Adjustable, compression type anchors are welded to jambs and allow frame installation, plumbing and squaring after wallboard is applied (to adjust anchors use Phillips head screw driver). Components have backbend-returns that protect the wall surface during installation. Sill anchoring is by means of screws through dimpled holes in faces ... welded on sill strap anchors are also available (optional).

Hardware Provisions: Frames are handed. Hinge jambs are mortised for 4-1/2" high, standard or heavy weight hinges (specify which). 7 gauge steel reinforcements are welded in place and are drilled and tapped for fasteners in accordance with ANSI A156.7. The strike jamb is prepared for 4-7/8" universal or 2-3/4" cylindrical strike in accordance with ANSI A115.1 & 2 (specify which). Optional closer reinforcement is 14 gauge min. steel. 3 mute holes are provided per strike jamb and 2 for double swing heads.

Paint: Steel door frames are provided with one coat of oven-cured neutral color primer paint. Primer coat shall conform with ANSI A.250.10. The primer coat is a preparatory base for necessary finish painting. "Colorstyle" finish coat is also available. Colorstyle finish is electrostatically applied, oven-cured urethane enamel. For accurate co or selector chart ask customer service for a Pantone Colorstyle chart.

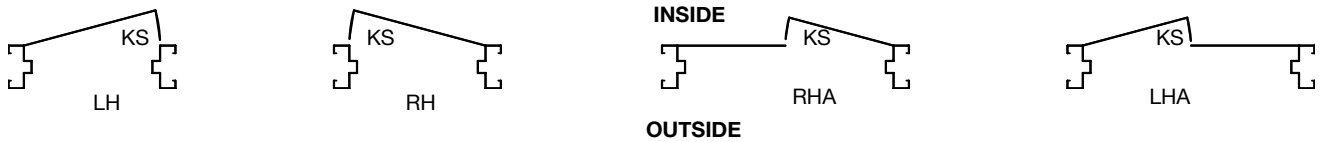
MATERIAL

DOOR FRAME MATERIAL	LEVEL	C.R.	GALV	
			A60	G90
18 GAUGE STEEL	STANDARD DUTY	STD	OPT	N/A
16 GAUGE STEEL	STANDARD, HEAVY, OR EXTRA HEAVY DUTY	STD	OPT	OPT
14 GAUGE STEEL	MAXIMUM DUTY	STD	OPT	OPT

18 GAUGE STEEL FOR USE WITH 1-3/4" WOOD DOORS.

PERFORMANCE

PHYSICAL ENDURANCE LEVEL:	MEETS ANSI A250.4 PERFORMANCE TEST -- 16 & 14 GAUGE STEEL: LEVEL A (1,000,000 CYCLES)



"KS"= KEY SIDE *"SUFFIX"A" = ACTIVE LEAF OF PAIRS*

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

Ceco Door
ASSA ABLOY

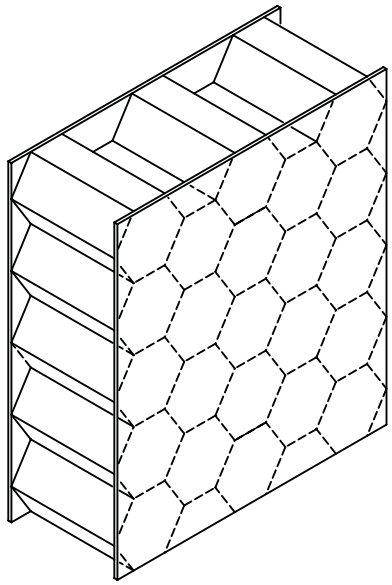
Doors

Experience a safer
and more open world

TECH MANUAL

1-3/4" REGENT (RI) HONEYCOMB CORE DOORS

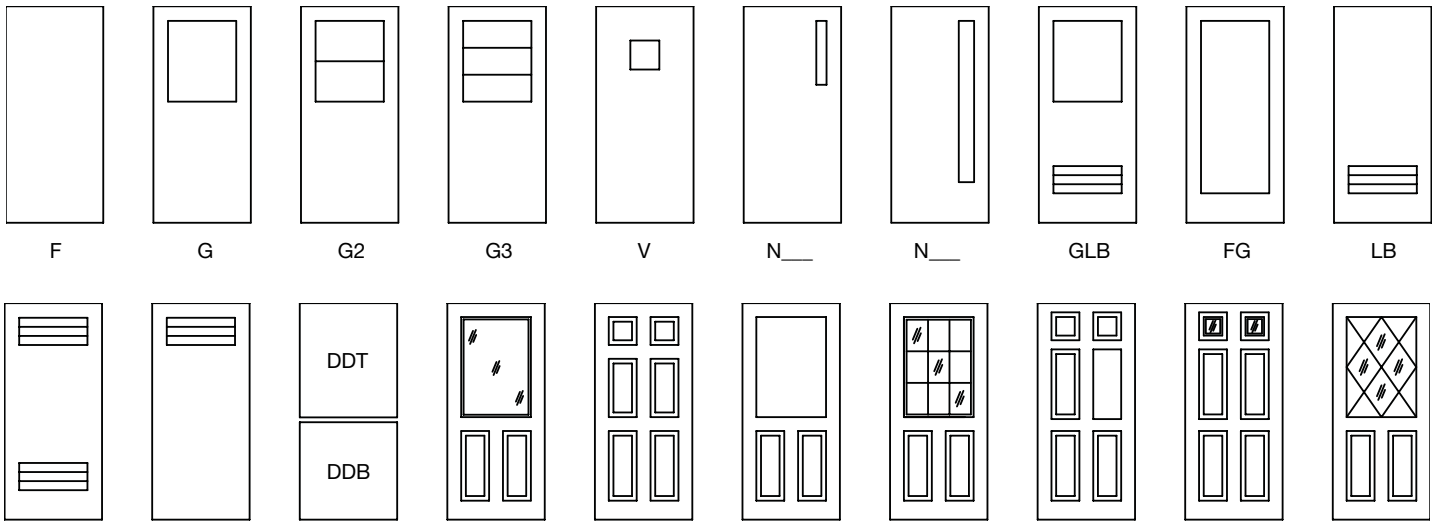
FLUSH AND EMBOSSED PANEL STEEL DOORS BEVELED LOCK EDGE, HANDED



Kraft fiber honeycomb slab, bonded to the inside of both face sheets with a water resistant, contact adhesive.

SUGGESTED USE:
- Interior or Exterior ...
- Office
- Motel/Hotel
- Apartment
- Urban Renewal
- Health Care
- Institutional
- Mercantile
- Public Utility
- Factory
- Warehouse

DOOR DESIGNS



EMBOSSED 6 PANEL ORDER CODES AND DOOR WIDTHS	
2'6, 2'8" NARROW 6 PANEL	2'8", 3'0" STD. 6 PANEL
EN61	E603
EN62	E601
EN63	E602
EN66	E605
E607	E606
E608	E607
EN69	E608
EN63	E609
E603	E604

6 PANEL	
MAX. SIZE	3'0"X7'0"
MIN. SIZE	2'6"X6'8"

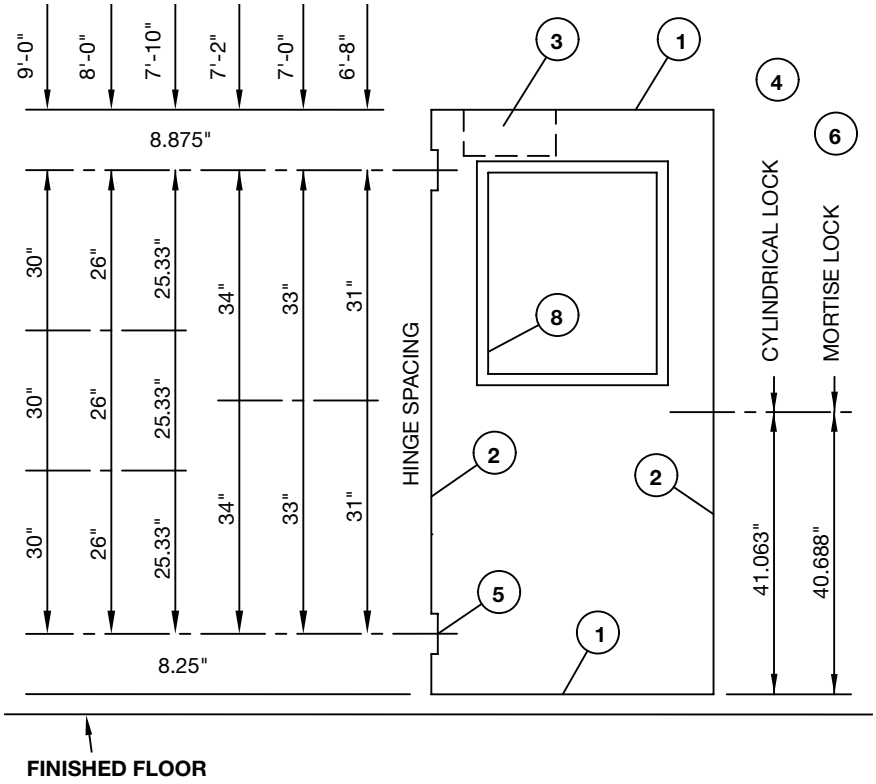
ALL 6 PANEL EMBOSSED DESIGNS WILL BE CENTER EDGE SEAM CONSTRUCTION

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

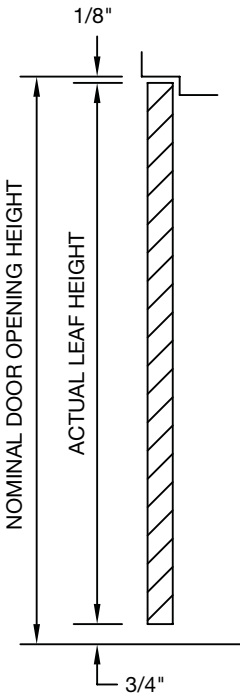
REGENT DOORS

HARDWARE LOCATIONS SHOWN MATCH CECO STANDARD FRAMES.

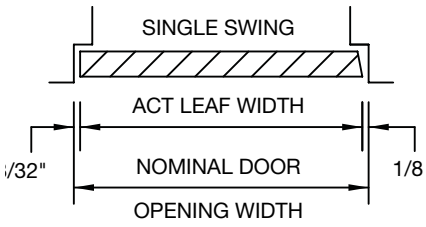
DOOR ELEVATION

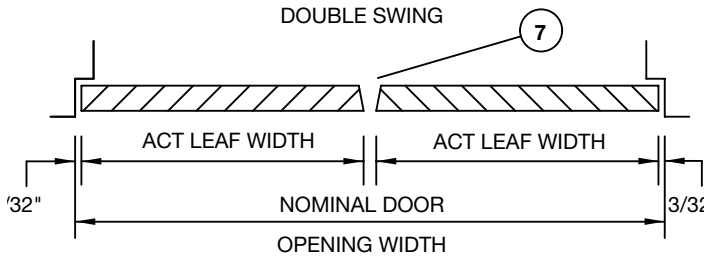


VERTICAL SECTION

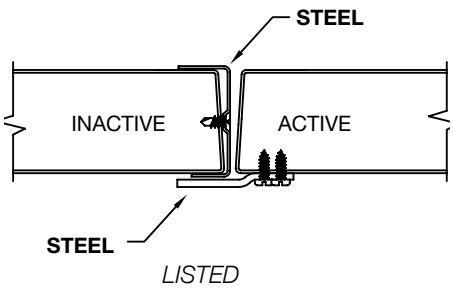


HORIZONTAL SECTIONS



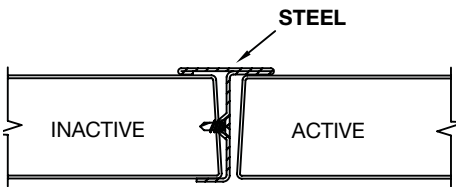


7 OVERLAPPING ASTRAGAL 4441
FOR 1-3/4" THICK DOORS



LISTED

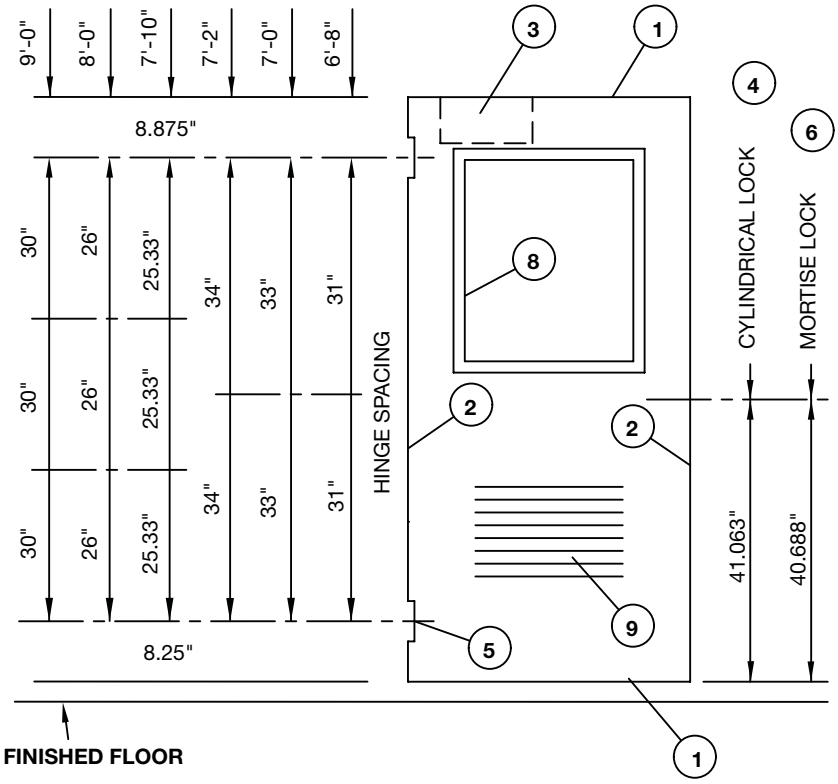
7 OVERLAPPING ASTRAGAL 4471
FOR 1-3/4" THICK DOORS



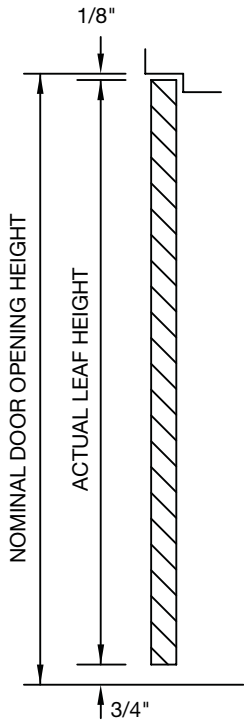
LISTED

OMEGA DOORS

DOOR ELEVATION

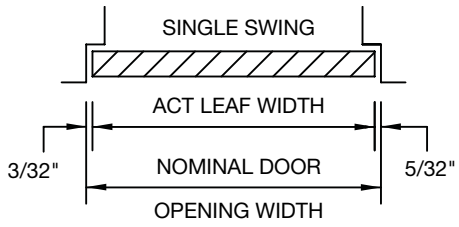


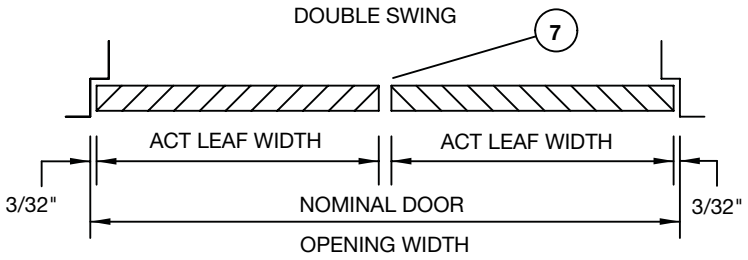
VERTICAL SECTION



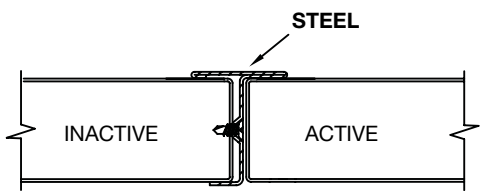
HARDWARE LOCATIONS SHOWN MATCH CECO STANDARD FRAMES.

HORIZONTAL SECTIONS



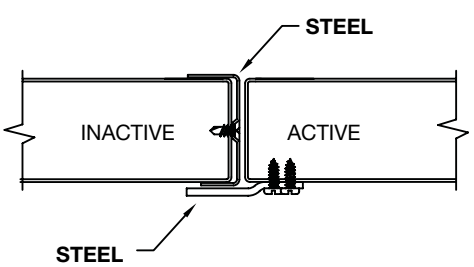


7 **OVERLAPPING ASTRAGAL** 4441
FOR 1-3/4" THICK DOORS



LISTED

7 **OVERLAPPING ASTRAGAL** 4471
FOR 1-3/4" THICK DOORS

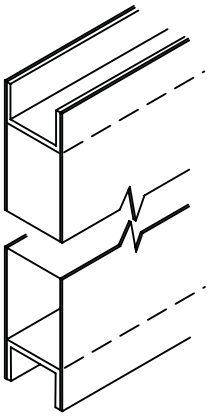


LISTED

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

OMEGA DOORS

1 16 GAUGE STEEL END CHANNELS

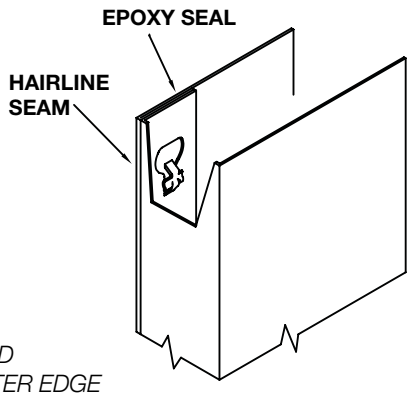


WELDED TO BOTH FACE SHEETS

INVERTED TOP AND BOTTOM

OPTIONAL TOP AND BOTTOM CAPS ARE AVAILABLE

2 VERTICAL EDGES

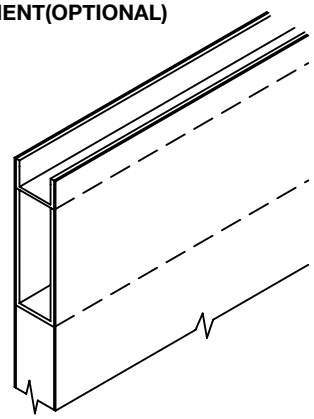


MECHANICALLY INTERLOCKED HEMMED EDGES

OPTIONAL : SEAMLESS (WELDED OR BODY FILLER)

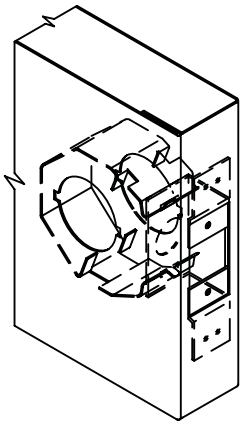
ALL 6 PANEL EMBOSSED DESIGNS WILL BE CENTER EDGE SEAM CONSTRUCTION.

3 CLOSER REINFORCEMENT(OPTIONAL)



14 GAUGE STEEL CHANNEL 20" LONG

4 LOCK PREPARATION GOV. 160/161 CYLINDRICAL TYPE



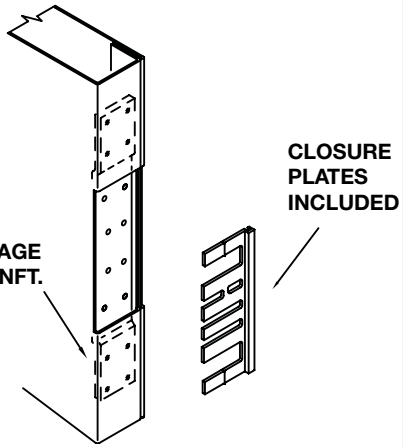
(LC1)

(ANSI A115.2)

2-3/4"BACKSET

LOCK EDGE IS SQUARE

5 HINGE PREPARATION

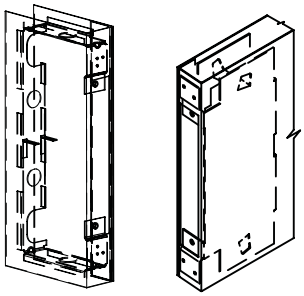


4-1/2" X .134" HIGH, STANDARD OR HEAVY WT. FULL MORTISE HINGE PREPS

ANSI A156.7 TEMPLATE

NON-HANDED

6 LOCK PREPARATION

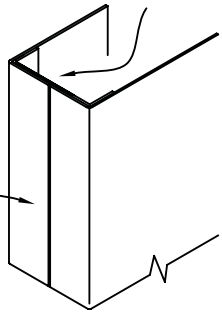


GOV. 86, ANSI/ BHMA A115.1 MORTISE TYPE

NOTE: EITHER OF THE LOCK REINFORCEMENTS/ GUARDS SHOWN MAY BE INSTALLED WITH ANY MORTISE LOCK PREPARATION.

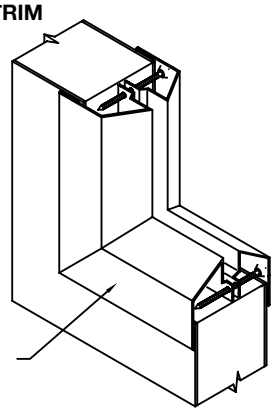
LOCK EDGE IS SQUARE

2 VERTICAL EDGES



WELD SEAMLESS AND BODY FILLER SEAMLESS IS OPTIONAL

8 GLAZING TRIM



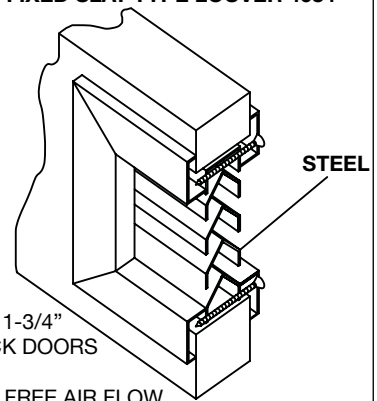
SLIMTRIM

FOR ALL FIRE DOORS

3/8" WIDE GLAZING POCKET

LISTED

9 FIXED SLAT TYPE LOUVER 4634



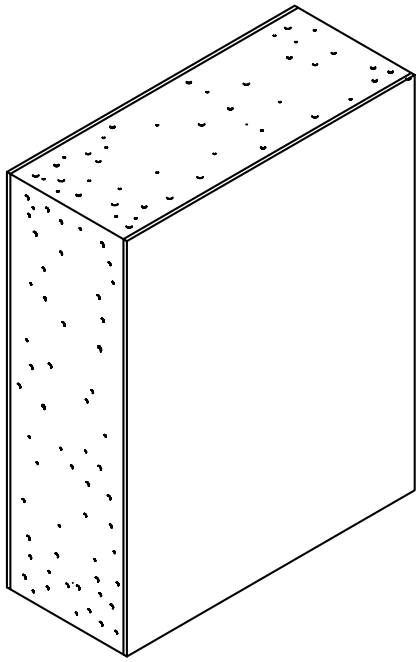
FOR 1-3/4" THICK DOORS

50% FREE AIR FLOW

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

1-3/4" IMPERIAL (IQ) WITH QMAX THERMALLY ENHANCED CORE

FLUSH PANEL STEEL DOORS, BEVELED LOCK EDGE, HANDED



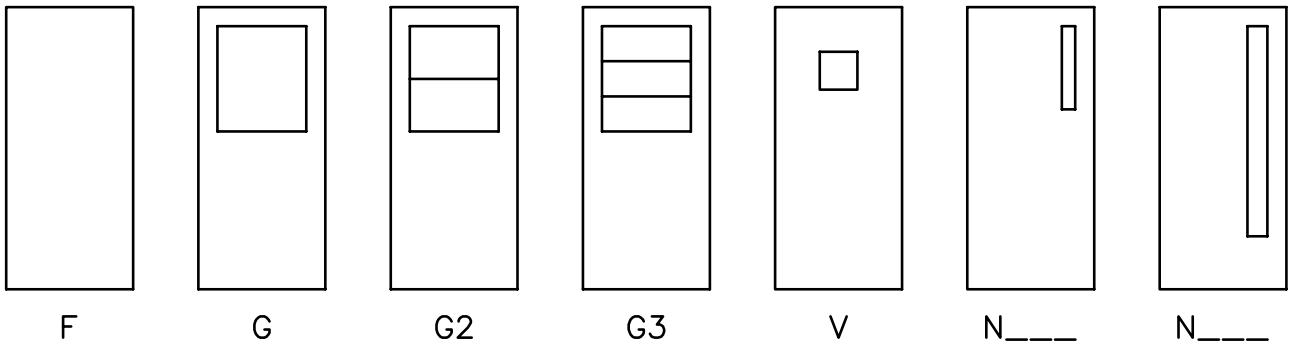
QMAX
THERMALLY
ENHANCED CORE

Full flush or seamless style... QMAX thermally enhanced core bonded to the inside of both facesheets with a waterproof contact adhesive.

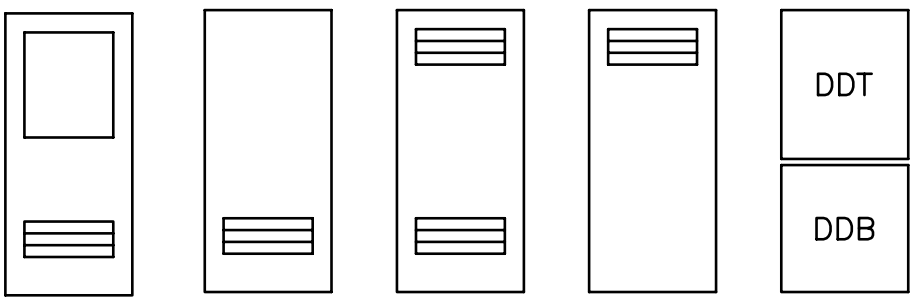
SUGGESTED USE:
- Interior or Exterior ...
- Data processing
- Condominiums
- Dormitories
- Motels/Hotels
- Office buildings
- Urban renewal
- Health care
- Institutional
- Mercantile
- Food processing

DOOR DESIGNS

FLUSH DESIGNS



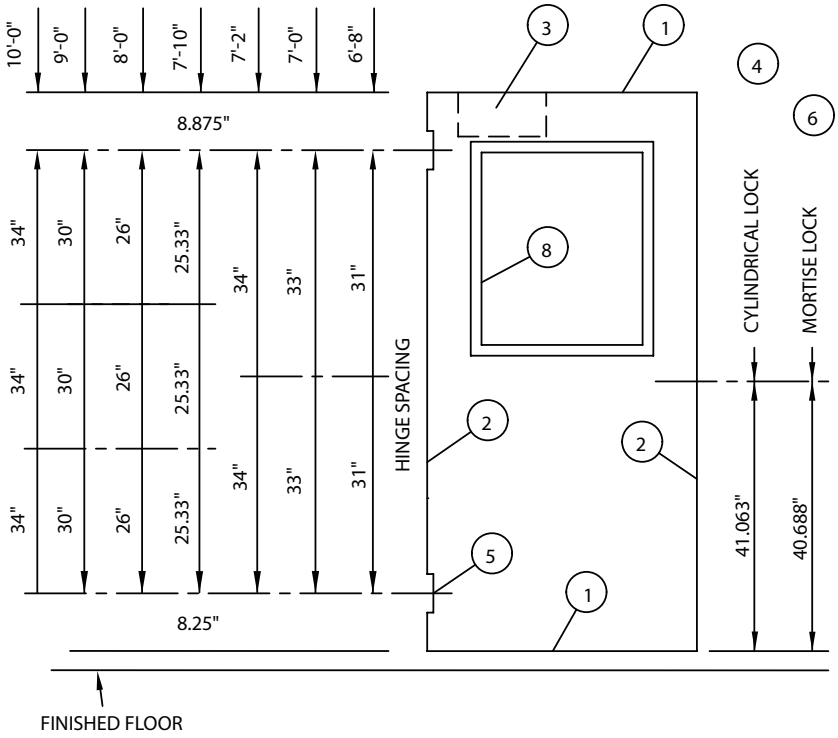
SEE LEGION (LP) SERIES FOR AVAILABLE EMBOSSED DESIGNS



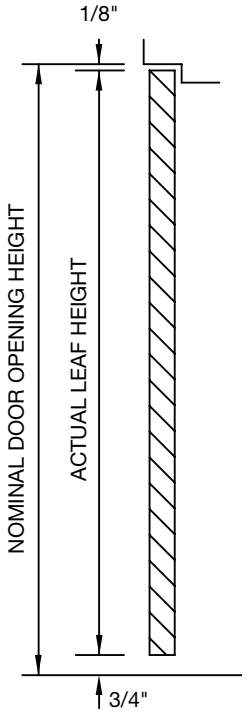
(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

IMPERIAL (IQ) WITH QMAX THERMALLY ENHANCED CORE

DOOR ELEVATION

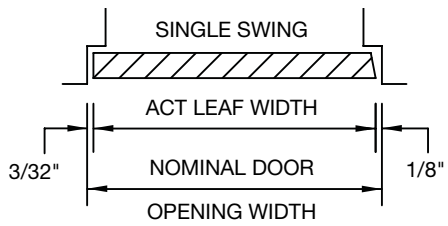


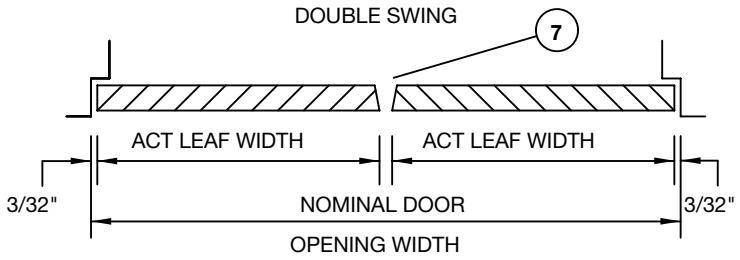
VERTICAL SECTION



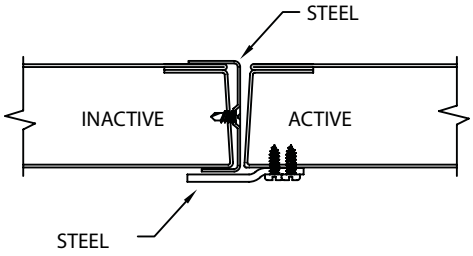
HARDWARE LOCATIONS SHOWN MATCH CECO STANDARD FRAMES.

HORIZONTAL SECTIONS



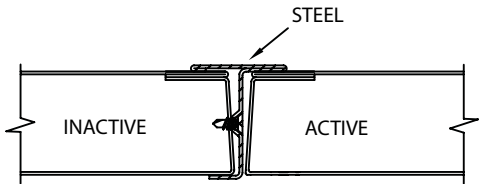


7 **OVERLAPPING ASTRAGAL 4441**
FOR 1-3/4" THICK DOORS



LISTED

7 **OVERLAPPING ASTRAGAL 4471**
FOR 1-3/4" THICK DOORS



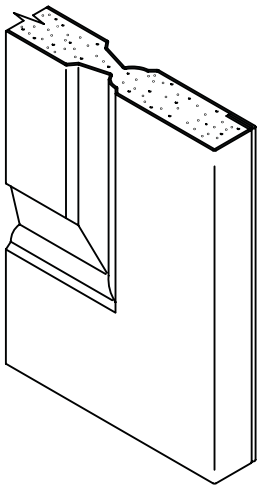
LISTED

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

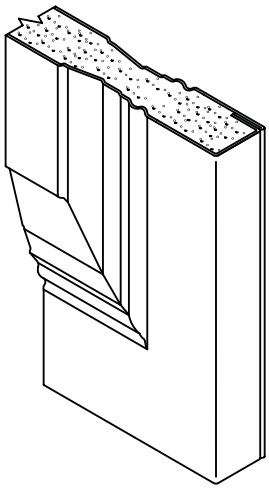
1-3/4" LEGION (LP) POLYSTYRENE CORE DOORS

FLUSH PANEL STEEL DOORS, BEVELED LOCK EDGE, HANDED

FLUSH DESIGNS SIMILAR LESS EMBOSSED PANEL



EMBOSSED PANEL DESIGNS: 6 PANEL CROSSBUCK

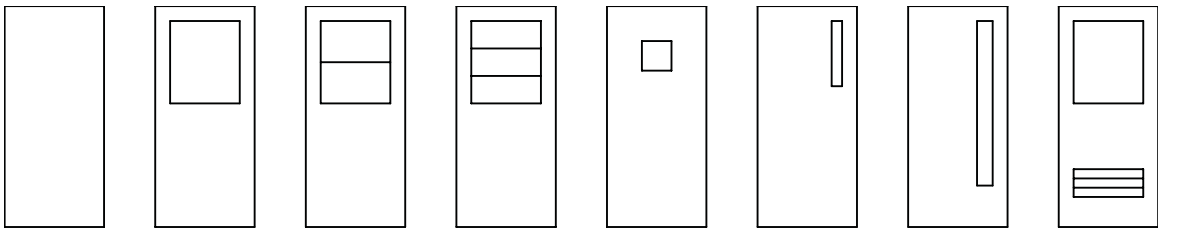


HIGH DEFINITION EMBOSSED PANEL DESIGNS: 1 & 2 PANEL

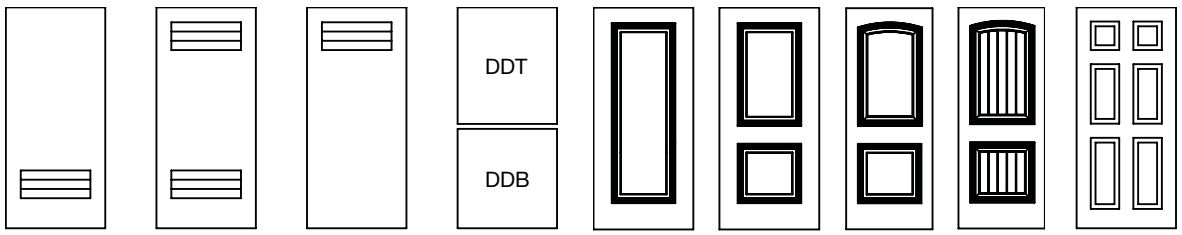
Polystyrene slab, bonded to the inside of both face sheets with a waterproof, contact adhesive.

SUGGESTED USE:
- Interior or Exterior...
- Office
- Motel/Hotel
- Apartment
- Condominiums
- Dormitories
- Urban renewal
- Health care
- Institutional
- Mercantile
- Public utility
- Factory
- Warehouse

DOOR DESIGNS



F G G2 G3 V N___ N___ GLB



LB LD LT DUTCH V, G, & N DESIGNS AVAILABLE E101 E201 E202 E203 E601, EN61

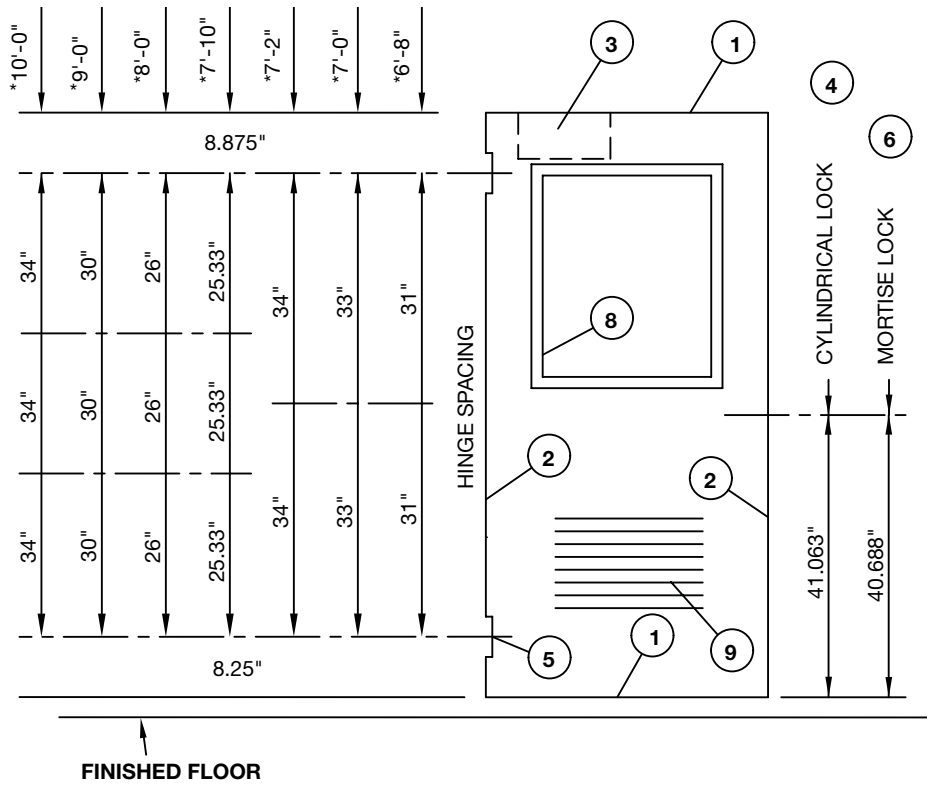
	1 PANEL	2 PANEL	6 PANEL
MAX. SIZE	3'0X8'0"	3'0X8'0"	3'0X7'0"
MIN. SIZE	2'8X6'8"	2'8X6'8"	2'6X6'8"

EMBOSSED NARROW 6 PANEL DESIGNS WILL BE CENTER EDGE SEAM CONSTRUCTION.

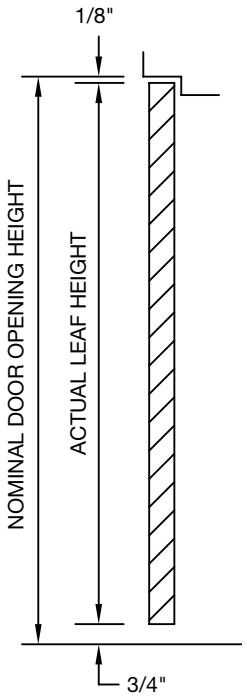
(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

LEGION DOORS

DOOR ELEVATION



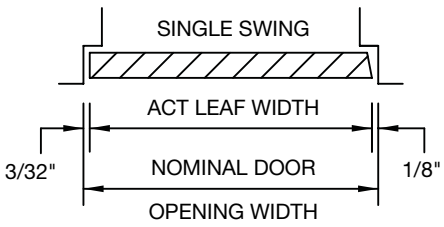
VERTICAL SECTION

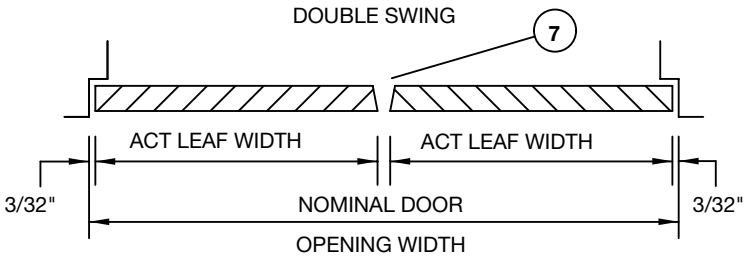


HARDWARE LOCATIONS SHOWN MATCH CECO STANDARD FRAMES.

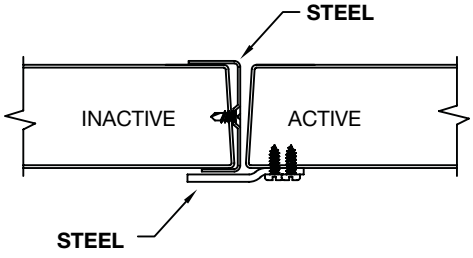
HORIZONTAL SECTIONS

SEE ALL EMBOSSED PANEL DESIGNS AND SIZE LIMITATIONS ON PAGE 100.



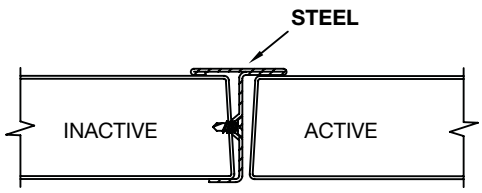


7 *LISTED*



OVERLAPPING ASTRAGAL **4441**
FOR 1-3/4" THICK DOORS

7 *LISTED*



OVERLAPPING ASTRAGAL **4471**
FOR 1-3/4" THICK DOORS

(CONVERSION: 1" = 25.4 MM, E.G., 1-3/4" = 44.45 MM)

LEGION DOORS

STANDARD SIZES
NOMINAL DOOR OPENING

WIDTH		HEIGHT
SINGLE	DOUBLE	
2'-0"	4'-0"	
2'-4"	4'-8"	
2'-6"	5'-0"	6'-8"
2'-8"	5'-4"	7'-0"
2'-10"	5'-8"	7'-2"
3'-0"	6'-0"	7'-10"
3'-4"	6'-8"	8'-0"
3'-6"	7'-0"	9'-0"
3'-8"	7'-4"	10'-0"
3'-10"	7'-8"	
4'-0"	8'-0"	

FIRE DOORS

LABELING AGENCIES :
UL SOLUTIONS
WARNOCK HERSEY

TEST: UL 10C, UL 10B, UL 1784, & NFPA 252

DESIGNS: F, G, N, V, E1, E2, E6, EN6

RATING: 20 MIN, 3/4 HR, 1-1/2 HR OR 3 HR

MAX. SIZE: 4'0" X 8'0" SINGLE
8'0" X 8'0" PAIR*
¨8'0" X 9'0" WITH VERTICAL RODS

NOT ALL RATINGS ARE AVAILABLE IN ALL SIZES, DESIGNS AND MATERIALS.

PRODUCT SPECIFICATIONS:

1-3/4" Thick steel doors shall be as manufactured by Ceco Door Products. Doors shall conform to the Steel Door Institute guide specification, ANSI A250.8; see chart below for performance classifications.

LEGION doors are made full-flush or (optional) seamless style. Face sheets are commercial quality cold rolled steel conforming to ASTM A1008...or (optional) hot-dipped galvannealed or galvanized steel conforming to ASTM A924 and A653 -- see chart below.

Legion full-flush doors have mechanically interlocked, hemmed, hairline seams on vertical edges and have no visible seams on faces. Embossed narrow 6 panel doors will have center edge seam construction. Doors specified "seamless" have no visible seams on faces or vertical edges (S.D.I. Model 2). A one piece, polystyrene slab, conforming to ASTM C578 TYPE 1, is bonded to the inside of both face sheets with a waterproof contact adhesive. The top and bottom door edges are closed with 16 gauge steel channels welded to both face sheets.

Hardware Provisions: Hinge preparations are handed. Hinge edges are mortised for 4-1/2" or 5" high, standard and heavy weight hinges (specify which). 7 gauge steel hinge reinforcements are welded inside the door edge and are drilled and tapped for fasteners in accordance with ANSI A156.7. The lock edge has a standard bevel (1: 16) and is prepared for Gov. series 86, 160/161, or 90 locks in accordance with ANSI A 115 (specify which). Optional closer reinforcement is a 14 gauge steel channel.

Paint: 1-3/4" steel doors shall be provided with one coat of oven-cured neutral color primer paint. Primer coat shall conform with ANSI A250.10. The primer coat is a preparatory base for necessary finish painting. "Colorstyle" finish coat is also available from a selection of standard colors (optional). Colorstyle finish is electrostatically applied, oven-cured urethane enamel and shall conform to ANSI A250.3. For accurate color selectors ask for a Ceco Colorstyle chart.

SIZE LIMITS - DESIGNS

	FLUSH DESIGNS	1 PANEL	2 PANEL	6 PANEL
MAX	4'0"x10'0"	3'0"x8'0"	3'0"x8'0"	3'0"x7'0"
MIN	2'0"x6'8"	2'0"x6'8"	2'0"x6'8"	2'0"x6'8"

E1, E2 & E6 DESIGNS: MORTISE LOCK PREPARATION LIMITED TO 3'0" WIDTH.
1 & 2 PANEL DOORS ARE AVAILABLE IN 18 GAUGE FACE SHEETS ONLY.
CROSSBUCK DOORS ARE AVAILABLE IN 20 & 18 GAUGE FACE SHEETS ONLY.
6 PANEL IS AVAILABLE IN 20, 18, & 16 GAUGE.
PANEL DESIGN DOOR FACE SHEETS ARE FORMED FROM A40 GALVANNEALED STEEL.

MATERIAL

DOOR FACE SHEETS	LEVEL	C.R.	GALV		RECOMMENDED DOOR FRAME MATERIAL
			A60	G90	
20 GAUGE STEEL (4080 MAX.)	STANDARD DUTY	N/A	STD	N/A	16 GAUGE STEEL
18 GAUGE STEEL	HEAVY DUTY	STD	OPT	OPT	16 GAUGE STEEL
16 GAUGE STEEL	EXTRA HEAVY DUTY	STD	OPT	OPT	16 OR 14 GAUGE STEEL
14 GAUGE STEEL	MAXIMUM DUTY	STD	OPT	OPT	14 OR 12 GAUGE STEEL

PERFORMANCE

THERMAL	CORE CALCULATED (ASTM C518)	R = 6.08	U = 0.16
CHARACTERISTIC VALUE	NFRC 102-2014 & ASTM FLUSH DOOR WITH MERCURY FRAME NFRC 102-2014 & ASTM FLUSH DOOR WITH WEATHERKERF FRAME NFRC 102-2014 & ASTM FLUSH DOOR WITH STANDARD FRAME	R = 2.33 R = 2.27 R = 2.22	U = 0.43 U = 0.44 U = 0.45

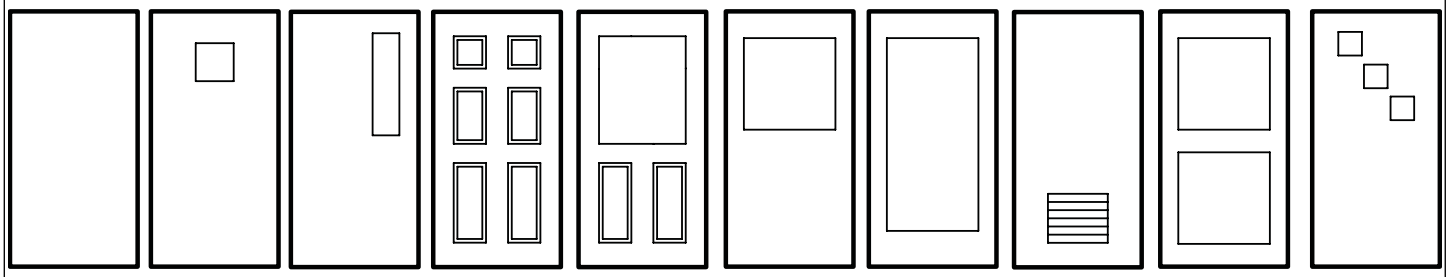
NFRC102-2014: THE GENERAL REQUIREMENTS OF TESTING SHALL BE AS DEFINED IN NFRC 102, ASTM C1199 AND ASTM C1363.

SOUND TRANSMISSION CLASS	STC 27 (F DESIGN, 18 GAUGE FACE SHEETS, ASTM E90 & E413 [FULLY OPERABLE])
PHYSICAL ENDURANCE LEVEL	MEETS ANSI A250.4 PERFORMANCE TEST, 20 GAUGE: LEVEL B (500,000 CYCLES); 18 AND 16 GAUGE: LEVEL A (1,000,000 CYCLES)

LABELED FIRE DOORS

1-3/4" REGENT AND OMEGA FIRE DOORS HONEYCOMB CORE

FIRE DOORS DESIGNS



F V N E601 E603 G FG LB 2G VX

HOURLY RATING	MAX. EXPOSED WIDTH, HEIGHT AND AREA	UL SOLUTIONS LISTED FUSIBLE LINK ****LOUVER
3 HOURS		NONE
1-1/2 HOURS		24" X 24" MAX.
1 HOUR		24" X 24" MAX.
3/4 HOUR		24" X 24" MAX.
1/3 HOUR		NONE

*****DO NOT USE FUSIBLE LINK LOUVERS IN FIRE DOORS FOR A GLASS LITE, VISION PANEL, FIRE EXIT HARDWARE, WITH 1/3 OR 3 HOUR LABELS.*
1/3 HOUR DOORS ARE FOR USE WHERE SMOKE & DRAFT IS A PRIMARY CONSIDERATION.

REGENT DOORS ARE HANDED. OMEGA DOORS ARE NON-HANDED. HONEYCOMB CORE-STEEL GLAZING TRIM, UL SOLUTIONS, WH OR FM LABEL ...CLASSIFIED FOR OPENINGS RATED FROM 20 MINUTE UP TO AND INCLUDING 3 HOURS. 30 MINUTE TEMPERATURE RISE > 650° F. FOR ADDITIONAL DATA, ON REGENT AND OMEGA DOORS, SEE PAGE 84 AND PAGE 88. EMBOSSED 6 PANEL DESIGNS ARE ELIGIBLE TO BE FIRE RATED.

14 GAUGE REGENT DOORS ARE AVAILABLE ONLY AS A SEAMLESS DESIGN.
MIN. 6" STILES AND RAILS REQUIRED FOR GLASS LITE DESIGNS.
CLASSIFIED FOR USE WITH ALL TYPES OF LABELED FIRE EXIT HARDWARE, EXCEPT WHERE NOTED.
ASTRAGAL IS REQUIRED FOR 3 HOUR RATED AND 20 GAUGE PAIRS, AND IS OPTIONAL FOR OTHER PAIRS.

** MAXIMUM SIZE:*
(18, 16 OR 14 GA.) 4'-0" X 9'-0" SINGLE 3 HOUR)
(18, 16 OR 14 GA.) 8'-0" X 9'-0" PAIR 3 HOUR)
(20 GA.) 4'-0" X 8'0" SINGLE 3 HOUR)
(20 GA.) 8'-0" X 8'-0" PAIR 3 HOUR)

** NOTE: SOME HARDWARE AND/OR GLASS LITE COMBINATIONS MAY NOT BE AVAILABLE IN SIZES LISTED. CONSULT CUSTOMER SERVICE FOR DETAILED INFORMATION.*

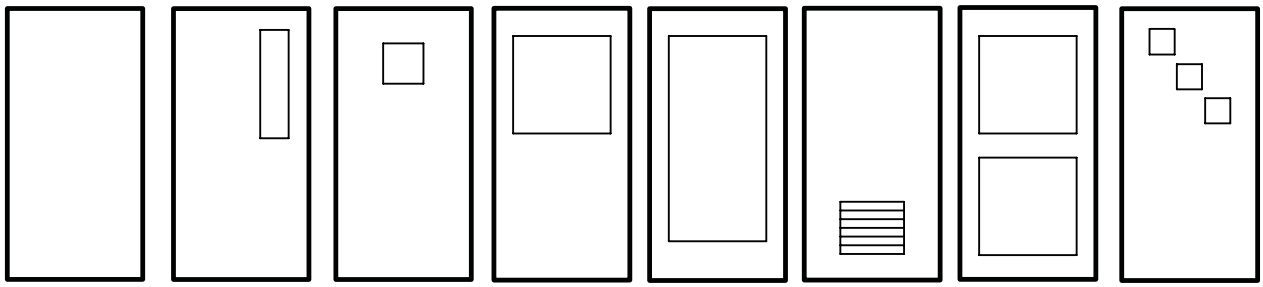
- LATCHSET: UL SOLUTIONS LISTED, 1/2" MINIMUM THROW.

- TEST: UL10B, UL10C, NFPA252 & UL1784

LABELED FIRE DOORS

1-3/4" IMPERIAL (IQ) AND VERSADOOR (VQ) FIRE DOOR WITH QMAX THERMALL ENHANCED CORE

FIRE DOORS DESIGNS



HOURLY RATING	MAX. EXPOSED WIDTH, HEIGHT AND AREA	UL SOLUTIONS LISTED FUSIBLE LINK *LOUVER
3 HOURS	SEE GLASS MANUFACTURERS CLASSIFICATION LISTING FOR THESE LIMITS.	NONE
1-1/2 HOURS		24" X 24" MAX.
1 HOUR		24" X 24" MAX.
3/4 HOUR		24" X 24" MAX.
1/3 HOUR		NONE

- IMPERIAL (IQ) DOORS ARE HANDED. VERSADOOR (VQ) DOORS ARE NON-HANDED.
  QMAX CORE-STEEL GLAZING TRIM, UL SOLUTIONS, WH LABEL...CLASSIFIED FOR OPENINGS RATED FROM 20 MINUTE UP TO AND INCLUDING 3 HOURS. 30 MINUTE TEMPERATURE RISE >650°F.
- FOR ADDITIONAL DATA ON IMPERIAL AND VERSADOOR DOORS, SEE PAGE 92 AND PAGE 96.

**DO NOT USE FUSIBLE LINK LOUVERS IN FIRE DOORS FOR A GLASS LITE, VISION PANEL, FIRE EXIT HARDWARE, WITH 1/3 HOUR OR 3 HOUR LABELS.*

- 1/3 HOUR DOORS ARE FOR USE WHERE SMOKE AND DRAFT ARE A PRIMARY CONCERN.
- 14 GAUGE DOORS WILL BE WELD SEAMLESS.

***MAXIMUM SIZE:*
(20, 18, 16 & 14 GA.) 4'-0" X 8'-0" SINGLE (3 HOUR.)
(18, 16 & 14 GA.) 8'-0" X 8'-0" PAIR (3 HOUR.)
(18 OR 16 GA.) 8'-0" X 9'-0" PAIR (1-1/2 HOUR.)
(20, 18, 16 & 14 GA.) 8'0" X 8'0") PAIR (1-1/2 HOUR.)

***NOTE: SOME HARDWARE AND/OR GLASS LITE COMBINATIONS*
MAY NOT BE AVAILABLE IN SIZES LISTED. CONSULT CUSTOMER SERVICE FOR DETAILED INFORMATION.

- ASTRAGAL IS REQUIRED FOR 3 HOUR RATED AND 20 GAUGE PAIRS, AND IS OPTIONAL FOR OTHER PAIRS

- CLASSIFIED FOR USE WITH ALL TYPES OF LABELED FIRE EXIT HARDWARE.

- LATCHSET: UL SOLUTIONS LISTED, 1/2" MINIMUM THROW.

- TEST: UL10B, UL10C, NFPA 252 & UL 1784

HAGER COMPANIES

PRODUCT SPECIFICATIONS

For more information visit www.hagerco.com

5200 SERIES GENERAL INFORMATION

5200

SPECIFICATIONS

Applications	• Grade 1 heavy duty surface door closer adjustable sizes 1–6 • Ideal for schools, hospitals, and other high-use environments
Box Quantity	1
Case Quantity	6
Certifications	• BHMA Certified ANSI A156.4, adjustable sizes 1–6 • ADA compliant ANSI A117.1 Accessibility Code • UL/cUL Listed for up to 3 hours • UL10C Positive Pressure Rated • UL10B Neutral Pressure Rated • 5200 Door Closer EPD
Cover	• Full plastic cover - standard • Slim line plastic cover - optional • Full size plated metal cover – optional
Door Thickness	• 1–3/4" (44 mm) - standard • 1–3/8" - 2–1/4" (36 mm - 57 mm) thick door - optional
Fasteners	• Self-reaming, self-tapping wood and machine screws - Standard. • Sex nuts and bolts- Standard.
Finishes	• ALM, BLK, BRZ, DBZ, GOL • Rust inhibiting primer - Standard
Handing	Non-handed
Material	Aluminum Alloy
Maximum Door Weight	250 lbs.
Notes	• To maximize hinge life and assist in achieving ADA compliance, Hager recommends the use of anti-friction or ball bearing hinges with our door closer products. • The recommended temperatures for prolonged closer use is between -40° F

	information (add the list price of the option to the list price of the closer and take standard discounts). • Accessories may not be available in all finishes. Please contact Hager for availability and lead time.
Optional Arms	• Tri-Pack Arm (Regular, Top Jamb and Parallel with Parallel Arm Bracket)- Standard • Hold Open Arm (HO) - 5910 • Pull Side Stop Arm (PSS) - 5926 • Pull Side Hold Open Stop Arm (PSHOS) - 5927 • Extra Heavy Duty Arm (HD) - 5911 • Extra Heavy Duty Stop Arm (HDS) - 5907 • Extra Heavy Duty Hold Open Stop Arm (HDHOS) - 5906 • Extra Heavy Duty Hold Open Arm (HDHO) - 5912 • Extra Heavy Duty Cushion Stop Arm (HDCS) - 5957 • Extra Heavy Duty Hold Open Cushion Stop Arm (HDHOCS) - 5956 • Hold Open Stop Track Arm (HOTA) • Non-Hold Open Stop Track Arm (NHOTA) • Double Egress Hold Open Track Arm (DEHOTA) • Double Egress Non-Hold Open Track Arm (DENHOTA)
Optional Brackets	• Hold open parallel arm bracket • Extra clearance parallel arm bracket
Product Description	Grade 1 Heavy Duty Door Closer
Springs	• One piece seamless steel spring tube • Double heat-treated, steel-tempered springs • Precision-machined, heat-treated steel piston
Valves	• Adjustable backcheck, sweep, and latching valves- standard • Delayed action valve - optional • All valves are staked
Warranty	Lifetime warranty

HAGER COMPANIES

PRODUCT SPECIFICATIONS

For more information visit www.hagerco.com

4700 RIM

4700 RIM

SPECIFICATIONS

Applications	Commercial
Certifications	• ANSI/BHMA A156.3–2014 Grade 1 • UL305 Listed for panic hardware • UL/cUL Listed for up to 3 hours for "A" labeled doors • UL10C Positive Pressure Rated • UL10B Neutral Pressure Rated • Warnock Hersey listed for up to 3 hours with fire rated removable mullion Complies with ANSI 117.1 for accessible buildings and facilities
Cover	Cast brass, bronze, stainless steel, zinc
Cover Tube	Painted steel, plated steel, stainless steel
Dogging	Hex key dogging standard on panic-rated devices
Door Thickness	1–¾" (44 mm) - standard
Door Width	• 36" (914mm) field sizeable to 30" (762 mm) door • 48" (1219mm) field sizeable to 36" (914 mm) door
End Caps	Painted steel, plated steel, stainless steel
Fasteners	• Wood and machine screws, • Thru-bolts
Finishes	US3, US32D, ALM, DBZ
Functions	• 01 - Exit Only (device) • 02 - Dummy (47DT) • 03 - Night Latch (47KN) • 08 - Key in Lever, key locks or unlocks lever (47KE) • 14 - Blank Escutcheon, always operable (passage) (47BE) • See catalog 4700 How To Order for additional functions
Latchbolt Type	5/8" (16mm) throw, pullman type with automatic dead-latching, stainless steel

Projection	• 2–7/16" (62mm) in undogged position • 1–3/16" (30mm) in dogged position
Stile Width	• 4–1/2" (114mm) - minimum stile width required for single door and 5/8" (16mm) stop • 4–1/2" (114mm) - minimum stile width required for double door x surface vertical rod device with double door strike • 5" (127mm) - minimum stile width required for double doors with 2" (51mm) mullion • All stile widths are measured from door edge
Strikes	• Stainless steel with plated roller - included standard with panic devices • Solid stainless steel - included standard with fire-rated devices • Surface applied to frame with slotted holes for easy adjustment • Optional double door strike for use with surface vertical rod and rim devices • For Rim x Rim x Mullion the 4916 strike is required on a fire-rated opening
Trim	• Archer, August, or Withnell lever with escutcheon • Archer, August, Withnell lever with key-in-lever trim • Raised lip pull • Pull plate trim • Rim cylinder x optional pull
Warranty	Five-years

HAGER COMPANIES

PRODUCT SPECIFICATIONS

For more information visit www.hagerco.com

47NL - NIGHT LATCH

47NL

SPECIFICATIONS

Certifications	• Meets ANSI/BHMA A156.3–2014 Grade 1 • Complies with ANSI A117.1 for accessible buildings and facilities (levers only)
Cylinders/Cores	Requires a 1–1/4" or 1–3/8" long 3902 mortise cylinder with standard cam, sold separately
Escutcheons	2–7/8" x 8" (67 mm x 203 mm)
Finishes	US3, ALM, DBZ, US32D
Functions	03 - Key retracts latchbolt
Handing	Specify when ordering
Lever Options	Archer, August, Withnell
Notes	4700 trim have steel bodies and zinc handles. The exception being US32D which has a stainless steel body.
Projection	2–7/8" (73 mm) for Archer; 2–7/8" (73 mm) for August; 2–3/4" (70 mm) for Withnell
Warranty	Five-years