



What is a Won-Door FireGuard Door?

A horizontal sliding accordion fire door that meets all IBC requirements for use in a means of egress and has fire ratings up to 3 hours.

A Reference Guide to special purpose, horizontal sliding, accordion or folding doors.

International Building Code (IBC)
1010.1.4.3 (2015)
1008.1.4.3 (2009/2012)
1008.1.3.3 (2006)



3-hour rated FireGuard Door – 48' x 36'
Orange County Convention Center – Orlando, FL



Won-Door FireGuard Door

Freedom of design while maintaining IBC compliance for egress and fire ratings.



Before



After

COMMON APPLICATIONS INCLUDE:

Elevator Lobby Enclosure
Wide, Unobstructed Egress Paths
Egress Stair Enclosures
Travel Distances issues (horizontal exits)

Occupancy Separations
Area and Construction Type Compliance
Access Control
And many others



Before



After

**ACCORDION FOLDING FIRE DOORS
SECTION 08 35 13.23**

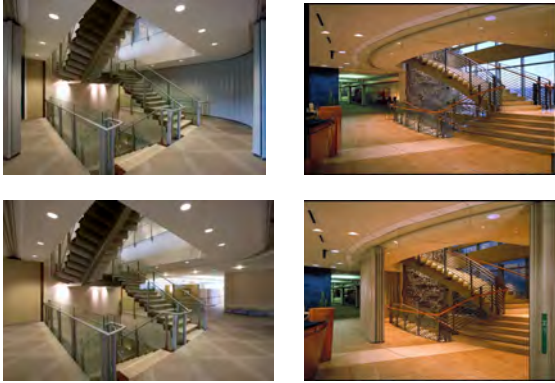
Won-Door FireGuard Door

Common Applications:



Enclosed Fire Stairs:

Can be an open design element.



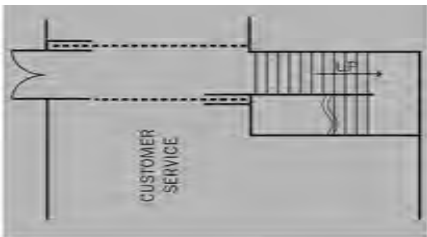
Large Rated Openings:

U.L. listed up to **28' high and unlimited width.**



Exit Enclosures (passageways):

Deploy only when activated by smoke/fire alarm.



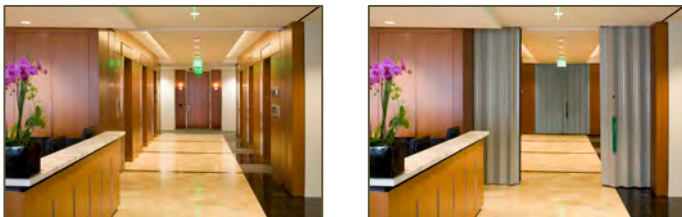
Atriums:

Re-design the "atrium" into a "shaft" for Significant Value Engineering gains.



Elevator Lobbies:

Enclosures can be completely concealed except during emergencies



Corridors:

Smoke compartments and travel distance requirements, dual egress.



Escalators/Vertical Openings:

Invisible yet invaluable during an emergency.



**ACCORDION FOLDING FIRE DOORS
SECTION 08 35 13.23**

Value Engineering Options using Won-Door FireGuard



Fire Glass:

Won-Door is often **1/3 the cost** to protect the same opening. Use tempered glass or clear opening with Won-Door FireGuard for:

- Exterior Rated Windows/Facades
- Atriums & Mezzanines
- Rated Glass Enclosures



Elevator Lobbies:

Point of Access single door enclosure is often the **least expensive option compared to pressurized shafts and full elevator lobbies** on every floor.

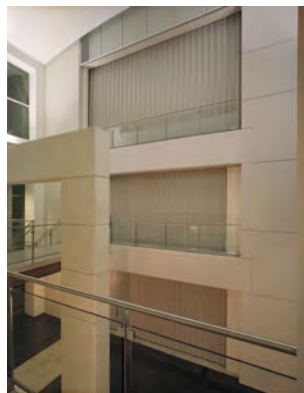
- Per ASTM 1784 without an artificial bottom seal



Atriums:

Enclosing the upper floors during fire alarm **turns the "atrium" into a "shaft"** per 2015 IBC. The following may be omitted:

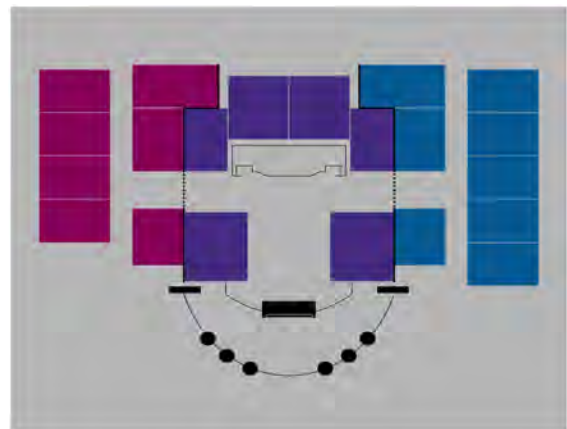
- Smoke Purge
- 1-hour rating on all adjacent walls
- Full Building Sprinkler
- Class B Finishes



Area Allowances:

Introduction of **Fire Walls with large openings to connect the spaces** reduces floor area of an occupancy – sprinkler and construction type requirements are also reduced.

See Table 506.2 2015 IBC



**ACCORDION FOLDING FIRE DOORS
SECTION 08 35 13.23**



Wide Span

Radial

Cross-Corridor

Approved For Use in a Means of Egress

WON-DOOR CORPORATION HORIZONTAL SLIDING ACCORDION-TYPE FIRE DOORS FREQUENTLY ASKED QUESTIONS (FAQ'S)

Is FireGuard approved for egress applications?

Yes, FireGuard meets all egress requirements found in NFPA 101 (Chapter 7) and IBC (Chapter 10). The assembly has also been evaluated through the ICC Evaluation Service. ICC-ES Report 1394 is available upon request.

How much does the assembly weigh?

5.5 pounds per square foot.

At what speed does the FireGuard door travel?

NFPA 80 Chapter 9 limits the speed of the door to not less than 6" per second and not more than 24" per second. FireGuard doors are set to open and close at approximately 10" per second.

Will the FireGuard door operate in the event of a power loss?

Yes, as required by NFPA 80 Chapter 9 the system includes a standby power source.

Does the FireGuard door require a floor track?

No, the door does not need a floor track.

What fire ratings are available?

Available fire door ratings are 20, 60, 90 and 180 minutes. The FireGuard assembly is also available as a Moveable Fire Wall tested in accordance with ASTM E-119.

Are smoke ratings available?

Yes, FireGuard doors are available with an "S" label.

What is the size limitation?

FireGuard doors are available in heights up to 28'. Widths are unlimited.

Are radial configurations available?

Yes, standard available radii are 5' and 10'. Custom radii are also available greater than 5'.

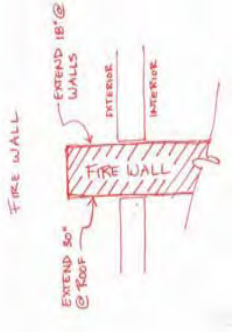
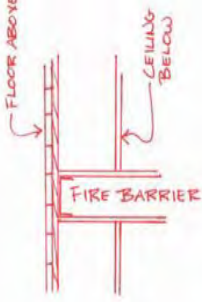
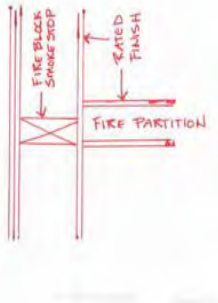
For additional information visit our website at www.wondoor.com



www.wondoor.com	2015 IBC
Elevator Lobbies	Required in all buildings where 3 or more stories are connected by elevator, no sprinkler is present, groups I-1 I-2 I-3, or high rise more than 75' (3006.2). Lobby may be omitted if shaft is pressurized or smoke doors used at access point to elevator car (3006.3, exceptions 3 & 4)
Escalators	Require shaft enclosure as per 3004.2.1. If building has sprinkler system, you may use draft curtain or automatic shutters as per 712.1.3 - 712.1.3.2. Two (2) hour fire barrier is required for shafts penetrating 4 or more stories, and no less than 1 hour fire barrier for shafts penetrating less than 4 stories per section 713.4
Atriums	Atriums connect 2 or more floors (Chapter 2 Definitions). Atrium requirements noted below may be omitted by using emergency fire doors to turn an atrium into a shaft: - atrium spaces must be separated from adjacent spaces by a 1 hour fire barrier (404.6) - interior finishes of entire atrium must be no less than Class B (404.8) - no more than 200' travel distance (404.9.3) - use of mechanical smoke purge system (404.5) - full building sprinkler protection (404.3) - see also Exception 1
Stair Enclosures	Shaft Enclosure required if the stair is used as a means of egress per 1023.2. Two (2) hour fire barrier is required for shafts penetrating 4 or more stories, and no less than 1 hour fire barrier for shafts penetrating less than 4 stories per section 1023.2
Exit Enclosures (AKA Exit Passageways)	Required as needed to continue any protected egress path to the exterior via a fully protected passageway. Required to comply with section 1024.
Area Separations	Required between buildings as fire walls or between occupancies as fire barriers based on square footage or construction type as noted in Table 506.1
Double Egress Doors	Where egress or double egress is required see section 1010.1.4.3.
Temperature Rise Doors (Labeled "T" as per NFPA 252 or UL10B)	Required in non-sprinklered buildings in the exit stairs and exit passageways as per 716.5.4
ASTM E119 or UL263 Rated Openings (Labeled "W")	Required if more than 156sf or 25% of a fire barrier is utilized as an opening as per 707.6, exception 3.
Fire Service Access Elevator	Required where an occupied floor is more than 120' above FD vehicle access as per 403.6.1. Lobbies shall be enclosed 1 hour as per 3007.6.2 and the doors shall be tested without an artificial bottom seal as per NFPA 1784 - Section 3007.6.2
Occupant Evacuation Elevators	May be utilized as part of the evacuation plan in compliance with section 3008. Lobbies shall be enclosed 1 hour as per 3008.6.0

This chart is for reference only and provided as a general guide to assist in finding the applicable sections of code. It is the responsibility of the designer to confirm local requirements and the applicability of code reference to their particular project.

FIRE WALL VS. FIRE BARRIER VS. FIRE PARTITION

www.wondoor.com 800-453-8494	FIRE WALL, IBC 706 (INCL. PARTY WALL)	FIRE BARRIER, IBC 707	FIRE PARTITION, IBC 708
GRAPHICS			
CONSTRUCTION & CONTINUITY	foundation through roof, exterior wall to exterior wall. Fire walls at roofs must extend 30" above adjacent construction. Fire walls at exterior walls shall extend not less than 18", with adjacent walls constructed of 1 hour rated materials. (Section 706.5, 706.6, 2015 IBC)	from top of foundation or floor/ceiling assembly below, to the underside of the floor/roof/slab/deck above. (Section 707.5, 2015 IBC)	from top of foundation or floor/ceiling assembly below, to the underside of the floor/roof/slab/deck above. OR to the fire resistance rated floor/ceiling assembly. Concealed spaces must be fireblocked or draftstopped (Section 708.4, 2015 IBC)
PROPERTIES	must maintain protection between separate building during fire, <i>without collapse</i> , even if they are attached to other structural elements that may collapse.	resist fire between spaces within a building for a required period of time	resist fire between spaces within a building for a required period of time
WHERE REQUIRED	Between 2 separate buildings that are connected.	Separating vertical and horizontal egress, shafts, mixed occupancies, exterior walls where required. Our E119 tested wall is applicable here if 25% or 156 sf needs to be exceeded. Our TR Wall is used for egress paths and stairways.	between adjacent residential occupancies, tenant spaces in mall buildings, corridor walls
OPENINGS (see table 716.5, 2015 IBC)	Non-Sprinklered - protected openings, up to 120 sf, width not to exceed 25% width of wall	Voids adjacent to barrier must be protected Non-Sprinklered - protected openings, up to 156 sf, width not to exceed 25% width of wall (707.6, 2015 IBC) Sprinklered - protected openings, may exceed 156 sf but width must still remain \leq 25% width of wall (707.6, 2015 IBC)	openings are permitted with a minimum rating of 1 hour (Table 716.5, 2015 IBC)
	Sprinklered - protected openings, may exceed 120 sf but width must still remain \leq 25% width of wall Party Walls - Fire Walls on lot lines may not have any openings. However, the lot line may not be considered if both properties are owned by the same entity and the wall is opened for the purpose of combined use.	May exceed 156 sf and 25% width of wall if the opening is a fire door serving fire enclosures (707.6, 2015 IBC) May exceed 156 sf and 25% width of wall if the opening has been tested in accordance with ASTM E119 or UL 263 and is rated equal or higher than the fire wall (707.6, 2015 IBC)	Fire Resistance > 1 hour (with exceptions noted in 708.3)
RATINGS	2, 3, 4 hours	1, 2, 3, 4 hours	Fire Resistance > 1 hour (with exceptions noted in 708.3)