VARIANCE FEES
MGO $50.00
COMM $490.00
Priority – Double above

Amount Paid

PETITION FOR VARIANCE APPLICATION

City of Madison Building Inspection Division
215 Martin Luther King Jr Blvd
Suite 017 Madison, WI 53703
(608) 266-4568

Name of Owner David Keller	Project Description A six story, 96 unit, multi-family apartment building, with a first floor commercial office space along West Washington Avenue. One level of underground parking is provided for the residential tenants.	Agent, architect, or engineering firm Potter Lawson
Company (if applies) CJK, Inc.		No. & Street 749 University Row, Suite 300
No. & Street 448 West Washington Avenue	Tenant name (if any)	City, State, Zip Code Madison, WI , 53705
City, State, Zip Code Madison, WI , 53703	Building Address 502 & 510 West Washington Avenue	Phone 608 274-2741
Phone 608 227-6543		Name of Contact Person Brian Reed
e-mail david@kellerrealestategroup.com		e-mail brianr@potterlawson.com

1. The rule being petitioned reads as follows: (Cite the specific rule number and language. Also, indicate the nonconforming conditions for your project.)

See attached IBC 2015 1006.2.1 and Table 1006.2.1, Table 1006.2.1 outlines an occupant load of 10 for R-2 spaces with one exit: 1006.2.1 exception 1 reads *"1. In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped through-out with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the common path of egress travel does not exceed 125 feet (38 100 mm)."* The difference in the allowable occupant threshold has created a condition open to differing interpretations as to how the exception is to be applied.

2. The rule being petitioned cannot be entirely satisfied because:

In order to locate the stairwells outside of the required Mifflandia Neighborhood Zoning stepback requirements (30' stepback along West Washington Avenue & 10' stepback on all other sides of the building above fourth story) and outside of the parking drive lanes on the lower floors the placement of the stairwells create a configuration on the upper levels where the occupant load will be greater than 10 (but not be greater than 20). The stairs are used as structural shear walls and will need to be vertically continuous structural walls.

3. The following alternatives and supporting information are proposed as a means of providing an equivalent degree of health, safety, and welfare as addressed by the rule:

Fire extinguisher cabinets are placed in the corridors near the single exit for convenient resident access. The building's non-combustible IIB Construction Type for the upper residential floors provides a higher level of safety then a combustible VA Construction Type which would also be allowable for the building.

The ICC has provided a letter of clarification on the intent of the 2015 IBC was to allow for an occupant load of 20 in R-2 or R-3, when the requirements of 1006.2.1 exception 1, are met. A letter from the ICC stating this intent on a similar condition on another Potter Lawson project is attached for reference.

Plans showing the common path of travel and the occupant loads for the areas of variance are attached.

Note: Please attach any pictures, plans, or required position statements.

VERIFICATION BY OWNER – PETITION IS VALID ONLY IF NOTARIZED AND ACCOMPANIED BY A REVIEW FEE AND ANY REQUIRED POSITION STATEMENTS.

Note: Petitioner must be the owner of the building. Tenants, agents, contractors, attorneys, etc. may not sign the petition unless a Power of Attorney is submitted with the Petition for Variance Application.

David Keller, being duly sworn, I state as petitioner that I have read the foregoing
Print name of owner

petition, that I believe it to be true, and I have significant ownership rights in the subject building or project.

Signature of owner David L. Keller	Subscribed and sworn to before me this date: 1/27/21
Notary public Tonia D. Kohl	My commission expires: 11/16/24

TONIA D. KOHL NOTARY PUBLIC STATE OF WISCONSIN

NOTE: ONLY VARIANCES FOR COMMERCIAL CODES ARE REQUIRED TO BE NOTARIZED.

City of Madison Fire Department Position Statement

Owner: David Keller CJK, Inc	Project Name:	Contact: Brian Reed Potter Lawson
Address: 448 W Washington Ave Madison, WI 53703	Building Location: 502 W Washington Ave	Address: 749 University Row Suite 300 Madison, WI 53705
Owner Phone: 608-227-6543 Email: david@kellerrealestategroup.com	Building Occupancy or Use: Groups R-2, S-2, B, M	Phone: 608-274-2741 Email: brianr@potterlawson.com

Rule Being Petitioned: IBC 1006.2.1.

I have read the application for variance and recommend: (check appropriate box)
☐ Approval **X Conditional Approval** ☐ Denial ☐ No Comment

- Provide smoke detection coverage in the common corridors on all residential floors to facilitate early notification of occupants.

Name of Fire Chief or Designee (type or print) Bill Sullivan, Fire Protection Engineer	
City of Madison Fire Department	Telephone Number 608-261-9658
Signature of Fire Chief or Designee	Date Signed February 10, 2021

1005.3.2 Other egress components. The capacity, in inches, of *means of egress* components other than *stairways* shall be calculated by multiplying the *occupant load* served by such component by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant.

Exceptions:

1. For other than Group H and I-2 occupancies, the capacity, in inches, of *means of egress* components other than *stairways* shall be calculated by multiplying the *occupant load* served by such component by a means of egress capacity factor of 0.15 inch (3.8 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an *emergency voice/alarm communication* system in accordance with Section 907.5.2.2.
2. Facilities with *smoke-protected assembly seating* shall be permitted to use the capacity factors in Table 1029.6.2 indicated for level or ramped *aisles* for *means of egress* components other than *stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is provided with a smoke control system complying with Section 909.
3. Facilities with outdoor *smoke-protected assembly seating* shall be permitted to the capacity factors in Section 1029.6.3 indicated for level or ramped *aisles* for *means of egress* components other than *stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is open to the outdoors.

1005.4 Continuity. The minimum width or required capacity of the *means of egress* required from any story of a building shall not be reduced along the path of egress travel until arrival at the public way.

1005.5 Distribution of minimum width and required capacity. Where more than one *exit*, or access to more than one *exit*, is required, the *means of egress* shall be configured such that the loss of any one *exit*, or access to one *exit*, shall not reduce the available capacity or width to less than 50 percent of the required capacity or width.

1005.6 Egress convergence. Where the *means of egress* from stories above and below converge at an intermediate level, the capacity of the *means of egress* from the point of convergence shall be not less than the largest minimum width or the sum of the required capacities for the *stairways* or *ramps* serving the two adjacent stories, whichever is larger.

1005.7 Encroachment. Encroachments into the required *means of egress* width shall be in accordance with the provisions of this section.

1005.7.1 Doors. Doors, when fully opened, shall not reduce the required width by more than 7 inches (178 mm). Doors in any position shall not reduce the required width by more than one-half.

Exceptions:

1. Surface-mounted latch release hardware shall be exempt from inclusion in the 7-inch maximum (178 mm) encroachment where both of the following conditions exist:
   1.1. The hardware is mounted to the side of the door facing away from the adjacent wall where the door is in the open position.
   1.2. The hardware is mounted not less than 34 inches (865 mm) nor more than 48 inches (1219 mm) above the finished floor.
2. The restrictions on door swing shall not apply to doors within individual *dwelling units* and *sleeping units* of Group R-2 occupancies and *dwelling units* of Group R-3 occupancies.

1005.7.2 Other projections. *Handrail* projections shall be in accordance with the provisions of Section 1014.8. Other nonstructural projections such as trim and similar decorative features shall be permitted to project into the required width not more than $1^1/_2$ inches (38 mm) on each side.

Exception: Projections are permitted in corridors within Group I-2 Condition 1 in accordance with Section 407.4.3.

1005.7.3 Protruding objects. Protruding objects shall comply with the applicable requirements of Section 1003.3.

SECTION 1006
NUMBER OF EXITS AND EXIT ACCESS DOORWAYS

1006.1 General. The number of *exits* or *exit access doorways* required within the *means of egress* system shall comply with the provisions of Section 1006.2 for spaces, including *mezzanines*, and Section 1006.3 for *stories*.

1006.2 Egress from spaces. Rooms, areas or spaces, including *mezzanines*, within a *story* or *basement* shall be provided with the number of *exits* or access to *exits* in accordance with this section.

1006.2.1 Egress based on occupant load and common path of egress travel distance. Two *exits* or *exit access doorways* from any space shall be provided where the design *occupant load* or the *common path of egress travel* distance exceeds the values listed in Table 1006.2.1.

Exceptions:

1. In Group R-2 and R-3 occupancies, one *means of egress* is permitted within and from individual *dwelling units* with a maximum *occupant load* of 20 where the *dwelling unit* is equipped through-

out with an *automatic sprinkler* system in accordance with Section 903.3.1.1 or 903.3.1.2 and the *common path of egress travel* does not exceed 125 feet (38 100 mm).

2. *Care suites* in Group I-2 occupancies complying with Section 407.4.

1006.2.1.1 Three or more exits or exit access doorways. Three *exits* or *exit access doorways* shall be provided from any space with an occupant load of 501 to 1,000. Four *exits* or *exit access doorways* shall be provided from any space with an occupant load greater than 1,000.

1006.2.2 Egress based on use. The numbers of *exits* or access to *exits* shall be provided in the uses described in Sections 1006.2.2.1 through 1006.2.2.5.

1006.2.2.1 Boiler, incinerator and furnace rooms. Two *exit access doorways* are required in boiler, incinerator and furnace rooms where the area is over 500 square feet (46 m^2) and any fuel-fired equipment exceeds 400,000 British thermal units (Btu) (422 000 KJ) input capacity. Where two *exit access doorways* are required, one is permitted to be a fixed ladder or an *alternating tread device*. *Exit access doorways* shall be separated by a horizontal distance equal to one-half the length of the maximum overall diagonal dimension of the room.

1006.2.2.2 Refrigeration machinery rooms. Machinery rooms larger than 1,000 square feet (93 m^2) shall have not less than two *exits* or *exit access doorways*. Where two *exit access doorways* are required, one such doorway is permitted to be served by a fixed ladder or an *alternating tread device*. *Exit access doorways* shall be separated by a horizontal distance equal to one-half the maximum horizontal dimension of the room.

All portions of machinery rooms shall be within 150 feet (45 720 mm) of an *exit* or *exit access doorway*. An increase in *exit access* travel distance is permitted in accordance with Section 1017.1.

Doors shall swing in the direction of egress travel, regardless of the *occupant load* served. Doors shall be tight fitting and self-closing.

1006.2.2.3 Refrigerated rooms or spaces. Rooms or spaces having a floor area larger than 1,000 square feet (93 m^2), containing a refrigerant evaporator and maintained at a temperature below 68°F (20°C), shall have access to not less than two *exits* or *exit access doorways*.

Exit access travel distance shall be determined as specified in Section 1017.1, but all portions of a refrigerated room or space shall be within 150 feet (45 720 mm) of an *exit* or *exit access doorway* where such rooms are not protected by an approved *automatic*

TABLE 1006.2.1
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

OCCUPANCY	MAXIMUM OCCUPANT LOAD OF SPACE	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)		
		Without Sprinkler System (feet)		With Sprinkler System (feet)
		Occupant Load		
		OL ≤ 30	OL > 30	
A[c], E, M	49	75	75	75[a]
B	49	100	75	100[a]
F	49	75	75	100[a]
H-1, H-2, H-3	3	NP	NP	25[b]
H-4, H-5	10	NP	NP	75[b]
I-1, I-2[d], I-4	10	NP	NP	75[a]
I-3	10	NP	NP	100[a]
R-1	10	NP	NP	75[a]
R-2	10	NP	NP	125[a]
R-3[e]	10	NP	NP	125[a]
R-4[e]	10	75	75	125[a]
S[f]	29	100	75	100[a]
U	49	100	75	75[a]

For SI: 1 foot = 304.8 mm.
NP = Not Permitted.

a. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where *automatic sprinkler systems* are permitted in accordance with Section 903.3.1.2.
b. Group H occupancies equipped throughout with an *automatic sprinkler system* in accordance with Section 903.2.5.
c. For a room or space used for assembly purposes having *fixed seating*, see Section 1029.8.
d. For the travel distance limitations in Group I-2, see Section 407.4.
e. The length of *common path of egress travel* distance in a Group R-3 occupancy located in a mixed occupancy building or within a Group R-3 or R-4 *congregate living facility*.
f. The length of *common path of egress travel* distance in a Group S-2 *open parking garage* shall be not more than 100 feet.

Duane Johnson

From: Chris Reeves <creeves@iccsafe.org>
Sent: Wednesday, July 1, 2020 12:48 PM
To: Duane Johnson
Cc: Chris Reeves
Subject: RE: 2015 IBC Section 1006.2.1
Attachments: Code Change E17-15 Table 1006.2.1.pdf

Duane Johnson,

This email is in response to your submitted diagram which was submitted in response to my initial email to Brian Stoddard on June 26, 2020.

While a complete plan review was neither requested or performed, based on the submitted diagram, the dwelling unit arrangement appears to be in compliance with the intent of Exception #1 of Section 1006.2.1 of the 2015 IBC. As stated in my initial response, the intent of the code, in my opinion, was clarified by the revisions in the 2018 IBC.

A copy of Code Change E17-15 which resulted in the current text in the 2018 IBC is attached for your information.

If you need further assistance, let me know.

Sincerely,

Chris Reeves

If you would like to discuss this further, I can be reached directly at (888) 422-7233, X4309.

Sincerely,

Chris Reeves

Christopher R. Reeves, P.E.
Director, Architectural & Engineering Services
International Code Council, Inc.
Central Regional Office
4051 W. Flossmoor Road
Country Club Hills, IL 60478
888-ICC-SAFE (422-7233), x4309
708-799-0310 facsimile

creeves@iccsafe.org
www.iccsafe.org

From: Duane Johnson <DJohnson@knothebruce.com>
Sent: Tuesday, June 30, 2020 12:34 PM
To: Chris Reeves <creeves@iccsafe.org>
Subject: FW: 2015 IBC Section 1006.2.1

Chris,
You and I spoke just before noon today. Attached is the plan I was referencing.
The right side and left side are mirror images so I didn't place the common path and unit square footages on each side, but I hope this gets the point across.

Thanks for your help.

My cell is 608-279-1401.

Duane M. Johnson, AIA, LEED AP I Architect I Knothe & Bruce Architects, LLC I Ph: 608.836.3690-Ext.108
7601 University Avenue, Middleton, WI 53562 I djohnson@knothebruce.com

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From: Brian Stoddard <BStoddard@knothebruce.com>
Sent: Friday, June 26, 2020 11:35 AM
To: Duane Johnson <DJohnson@knothebruce.com>
Subject: FW: 2015 IBC Section 1006.2.1

Duane –
I haven't read this yet. Wanted to get it to you asap.

Brian Stoddard | Architect | Knothe & Bruce Architects | 608.836.3690 x106
7601 University Avenue, Suite 201, Middleton, WI 53562 | bstoddard@knothebruce.com

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From: Chris Reeves <creeves@iccsafe.org>
Sent: Friday, June 26, 2020 11:33 AM
To: Brian Stoddard <BStoddard@knothebruce.com>
Cc: Chris Reeves <creeves@iccsafe.org>
Subject: 2015 IBC Section 1006.2.1

Brian Stoddard,

This e-mail is in response to your e-mail correspondence regarding the single means of egress provisions with respect to a Group R-2 residential project. All comments are based on the 2015 International Building Code (IBC) unless noted otherwise.

While a drawing was not submitted, your concern is the applicability of the single means of egress "space" provisions of Section 1006.2.1 for a Group R-2 occupancy. This code opinion assumes that the common path of travel distance requirements of Table 1006.2.1 are complied with and that a dead end corridor situation does not exist (Section 1020.4).

Admittedly, the IBC does **not** contain a definition for the term "space". As indicated in Table 1006.2.1, typical Group R "spaces" are limited to a maximum of 10 occupants in order to be considered a space with one means of egress. While a single dwelling unit is considered a space, a configuration of multiple contiguous dwelling units as proposed, in my opinion, just constitute an even bigger "space". As such, the overall aggregate occupant load of a "space" comprised of multiple dwelling units would still be limited to 10 before requiring a second means of egress.

Exception #1 of Section 1006.2.1 allows for individual dwelling units to be considered a space with one means of egress provided the dwelling unit has a maximum occupant load of 20 and has a common path of travel which does not exceed 125 feet. This exception also assumes the building is fully sprinkered in accordance with NFPA 13 or NFPA 13R. As such, alternatively, in my opinion, multiple units could be treated as a single dwelling unit and only require one means of egress from that "space" provided the aggregate occupant load of the multiple units did not exceed 20 and the common path of travel did not exceed 125 feet.

It should be noted that just because the corridor in question is a code complying corridor and not otherwise considered a dead end corridor for occupants entering the corridor does not relieve the applicability of the single means of egress "space" provisions of Table 1006.2.1. The aggregate occupant load from adjoining rooms must be added to verify all converging occupants into a given space are provided the adequate number of means of egress.

With respect to the 2018 IBC, Exception #1 of Section 1006.2.1 was deleted and incorporated into revised Table 1006.2.1 for Group R-2 occupancies. Since all Group R-2 occupancies are required to be sprinklered, this exception for dwelling units with a maximum occupant load of 20 was always applicable. As such, the entry for Group R-2 in Table 1006.2.1 was revised to acknowledge the maximum occupant load of 20 when only one means of egress is provided. As such, the 2018 IBC provides clarification to consider multiple dwelling units as a single dwelling unit for requiring a single means of egress from a given Group R-2 "space".

Code opinions issued by ICC staff are based on ICC published codes and do not include local, state or federal codes, policies or amendments. This opinion is based on the information which you have provided. We have made no independent effort to verify the accuracy of this information nor have we conducted a review beyond the scope of your question. This opinion does not imply approval of an equivalency, specific product, specific design, or specific installation and cannot be published in any form implying such approval by the International Code Council. As this opinion is only advisory, the final decision is the responsibility of the designated authority charged with the administration and enforcement of this code.

If you would like to discuss this further, I can be reached directly at (888) 422-7233, X4309.

Sincerely,

Chris Reeves

Christopher R. Reeves, P.E.
Director, Architectural & Engineering Services
International Code Council, Inc.
Central Regional Office
4051 W. Flossmoor Road

Country Club Hills, IL 60478
888-ICC-SAFE (422-7233), x4309
708-799-0310 facsimile
creeves@iccsafe.org
www.iccsafe.org

From: Brian Stoddard <BStoddard@knothebruce.com>
Sent: Monday, June 22, 2020 11:16 AM
To: John Gonzalez <jgonzalez@iccsafe.org>
Cc: Renee Testroet <rtestroet@iccsafe.org>
Subject: FW: IBC interpretation

Good morning –
I have a code interpretation request for the 2015 IBC:

2015 IBC section 1006.2.1 Exception 1 allows for a maximum occupant load of 20 in a group R-2 single exit scenario. Can this be applied to multiple dwelling units (for example four 950 s.f. individual units) exiting to a shared code compliant dead end corridor if the aggregate total of all units does not exceed the 20 occupants and they each meet common path of travel requirements.

2018 IBC moved the 20 person occupant load exception into Table 1006.2.1. Was the intent of this change a clarification or an actual change in allowed occupant loads. Would the same situation described above be allowed in the 2018 IBC.

Thanks for your help.

Brian Stoddard | Architect | Knothe & Bruce Architects | 608.836.3690 x106
7601 University Avenue, Suite 201, Middleton, WI 53562 | bstoddard@knothebruce.com