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NC DEPARTMENT OF INSURANCE

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MIKE CAUSEY, INSURANCE COMMISSIONER & STATE FIRE MARSHAL
BRIAN TAYLOR, CHIEF STATE FIRE MARSHAL

September 1, 2021

Chad Askew, RA
Housing Studio
333 West Trade Street
Charlotte, NC 28202

RE: Dwelling Separation Requirements Related to Single Means fo Egress
2018 NCBC 420 and 1006.3

Mr. Askew:

This letter is in response to your request for formal interpretation dated August 18, 2021 that was received in NCDOI by email on August 19, 2021. Your request for formal interpretation states in my words:

> For a configuration, as submitted in "Exhibit 'B' of Attachment A below, does the use of Table 1006.3.2(1) allow all the dwellings units to be separated as allowed by Section 420.2 or are firewalls complying with Section 706 required between the pods?

Remarks:

The term "pod" as used in this interpretation means a group of dwelling units with a maximum quantity of 4 dwelling units in the group.

Code sections noted in this letter are referring to the 2018 edition of the NC Building Code (NCBC) unless otherwise noted.

This interpretation assumes that the Group R-2 occupancies in question are dwellings.

Attachment A is a copy of your request for interpretation. It is attached to this letter as a matter of reference.

Exhibit 'B' of Attachment A shows 3 sets of 4 dwelling units. This interpretation assumes these dwellings to be on a level other than the level of exit discharge with a maximum of 4 dwellings egressing to a single exit. The story, however, has 3 means of egress.

Code Analysis:

Section 1006.3 - Egress From Stories or Occupied Roofs states:

> **1006.3 - Egress from stories or occupied roofs.** The *means of egress* system serving any *story* or occupied roof shall be provided with the number of *exits* or access to *exits* based on the aggregate *occupant load* served in accordance with this section. The *path of egress travel* to an *exit* shall not pass through more than one adjacent *story*.

Comment: This section is the charging paragraph for Section 1006.3.2. It does not clarify the issue at hand.

Section 1006.3.2 – Single Exits states in part:

> **1006.3.2 Single exits.** A single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exist:
>
> 1. The occupant load, number of dwellings units and common path of travel distance does not exceed the values in Table 1006.3.2(1) or Table 1006.3.2(2).

Comment: IBC Commentary for Table 1006.3.2(1) provides clarity (See Exhibit 'F' of Attachment A below). Since the purpose of the limit is to restrict the number of persons that can be affected by a single event that might block the means of egress, it seems plausible that the intent is to limit the number of dwelling units that would be affected by a single fire event and not the total number of exits from a story. This would then support the idea of multiple pods per story with a single exit per pod and no fire walls separating the pods.

Table 1006.3.2(1) footnote "b" states:

> b. This table is used for R-2 occupancies consisting of *dwelling units*. For R-2 occupancies consisting of *sleeping units*, use Table 1006.3.2(2).

Comment: The footnote indicates that the table applies to Group R-2 occupancies that consist of dwelling units. The table, therefore, applies to the situation shown in Exhibit 'B' of Attachment A below.

Conclusion:

Table 1006.3.2(1) is not intending to limit application to buildings where only 4 dwellings units exist per story per building but intends to limit 4 dwellings units on a story to a single exit. The 2015 IBC Commentary shown in Exhibit 'F' of Attachment A below supports this conclusion. The result is that you can have multiple pods with single exit per pod on a story separated with fire partitions as required by Section 420.2 instead of fire walls complying with Section 706.

Please call if you have comments or questions.

Sincerely,

Carl Martin, RA
Deputy Commissioner
Division Chief of Engineering

cc: File
Bridget Herring, Chair – BCC
Danny Priest, Vice-Chair – BCC

ATTACHMENT A

APPENDIX E
APPEALS
NORTH CAROLINA
BUILDING CODE COUNCIL
325 North Salisbury Street, Room 5_44
Raleigh, North Carolina 27603
(919) 647-0095

APPEAL TO NCDOI/NCBCC **Hearing Date** _____/ _____/ _____

GS 153A-374, GS 160A-434
Formal Interpretation by NCDOI X

Appeal of Local Decision to NCDOI_____

GS 143-140, GS 143-141
Appeal of Local Decision to NCBCC_____
Appeal of NCDOI Decision to NCBCC_____

APPELLANT	Chad Askew, AIA	**PHONE-** 704 - 877 - 1495	
REPRESENTING	Housing Studio		
ADDRESS-	333 West Trade Street		
CITY-	Charlotte	**STATE-** NC	**ZIP-** 28202
E-MAIL	cskew@housingstudio.com	**FAX** (704)- 343- 9380	

North Carolina State Building Code, Volume -2018 NCBC **Section-** 420, 1006.3

REQUEST ONE:
[X] Formal Interpretation by NCDOI
[ ] Appeal of Local Decision to NCDOI
[ ] Appeal of Local Decision to NCBCC
[ ] Appeal of NCDOI Decision to NCBCC

Type or print. Include all background information as required by the referenced General Statutes and the attached policies. Attach additional supporting information.

Project: Three story, R-2 Apartments
Primary Occupancy-R-2, Apartments
Construction Type-5A
Fully Sprinklered-13R

Exhibits(attached):

Exhibit 'A':	E-mail correspondence from Carl Martin, RA, Deputy Commissioner, Division Chief of Engineering
Exhibit 'B':	Plan sketch drawing 100, dated 07.13.21
Exhibit 'C':	2018 NCBC, Section 420, with highlighted Section 420.2
Exhibit 'D':	2018 NCBC, Section 708, with highlighted 708.1
Exhibit 'E'	2018 NCBC, Sections, 1006.3, 1006.3.1 and Table 1006.3.2(1)
Exhibit 'F':	2015 IBC, Table 1006.3.2(1) and 2015 IBC Commentary for Table 1006.3.2(1)

REASON:

Background: Three story R-2, apartment occupancy building, see attached plan sketch Exhibit 'B', with groups of four R-2 units around a single stair means of egress per NCBC Section 1006.3 and Table 1006.3.2(1), Exhibits 'E' and 'F'. This configuration of units has been reviewed by some code officials in North Carolina with the notation that each group of four R-2 units with a single stair must have a Fire Wall between each group of four units. The Housing Studio's interpretation as well as many of the code reviewers in North Carolina and other states in which we work maintains that the wall separating the group of four units only requires a Fire Partition per Section 708, Exhibit 'D', of the 2018 NCBC. We have received an interpretation from Carl Martin, NCDOI, Exhibit 'A' but would like to have a formal interpretation to provide Code Officials in North Carolina that have different interpretations for what we feel is the intent of the Building Code.

1: Section 420.2, Exhibit 'C' clearly notes that walls separating dwelling units in the same building shall be constructed as Fire Partitions in accordance with Section 708, Exhibit 'D', 708.1(1) which also confirms the requirement of Fire Partitions between dwelling units.

2. Section 1006.3.1, Table 1003.3.2(1) and Section 1006.3.2 provide requirements for use of a single stair for R-2, maximum of 4 dwelling units, 125' maximum common path of travel and must be fully sprinklered with 13 or 13R systems.

3. Also included is Exhibit 'F' commentary from the 2015 IBC for Table 1006.3.2(1) noting: "Formal committee interpretation 21-14 states that this table allows for groups of four units on a story to have access to a single exit. These units would have to be separated in accordance with Section 420, see above, but would not have to be separated by fire barriers or fire walls."

4. This information was submitted to Carl Martin, RA, NCDOI, Exhibits 'A' and 'B', including sketch of proposed unit, building layout. As noted in Mr. Martin's email reply, dated July 30, 2021 and I quote "Your attached sketch can be code compliant without construction of Section 706 Fire Walls. If the allowed building area, per Table is met for the construction type fire walls are not required; the 4 units pods can be separated as required by Section 420.2 and 708.1.

The Housing Studio's design is based on the above summarized code requirements and meets those requirements per 2018 NCBC and 2015 IBC. The Housing Studio's interpretation meets code with the construction of Fire Partitions separating Dwelling Units where the allowed building area is not exceeded, per 2018 NCBC Table 506.2. This interpretation is also supported by Carl Martin, RA, Deputy Commissioner, Division Chief of Engineering, NCDOI.

APPEAL TO NCDOI/NCBCC

Signature: _____ **DATE:** 08.18.21 **FORM 3/14/17**

Chad Askew, AIA

Larry Walters

Exhibit 'A'

From: Martin, Carl <Carl.Martin@ncdoi.gov>
Sent: Friday, July 30, 2021 1:10 PM
To: Larry Walters
Cc: Yip, Pak
Subject: RE: Single Egress R2
Attachments: Single Egress-4 Units.pdf

Larry,

Sorry, I lost this in pile of emails.

2018 NCBC, Section 1006.2.1 provides requirements for single means of egress from a space. 1006.3.2 then indicates when a single means of egress is allowed from a floor. Table 1006.3.2(1) then indicates when a single exit from a story is allowed. The table is not is not limiting the quantity of exits per story, but is limiting the number of dwelling units that can access a single exit per story. Confusing, I know. The subtle difference is that the code is intending to allow multiple exits from a story, but only 4 dwellings per exit is allowed if the units only have access to a single exit from the story.

Conclusion:
Your attached sketch can be code compliant without construction of Section 706 fire walls. As long as the allowed building area is met for the construction type fire walls are not required; the 4 unit pods can be separated as required by Section 420.2 & 708.1.

I think this will clear it up for you.

FYI: Pak Yip is our new Chief Building Code Consultant.

Carl Martin, RA
Deputy Commissioner
Division Chief of Engineering

N.C. Department of Insurance
Office of State Fire Marshal
1202 Mail Service Center
Raleigh, NC 27699-1202
cell: 919-888-0284

"Consistency" as defined by Merriam-Webster – "harmony of conduct or practice with profession"

From: Larry Walters <lwalters@housingstudio.com>
Sent: Tuesday, July 13, 2021 11:01 AM
To: Martin, Carl <Carl.Martin@ncdoi.gov>
Subject: [External] Single Egress R2

07.13.21

Carl, good morning,

See Attached. Still questioning the requirement or firewall between groups of four R-2 units and single egress stair.

We would consider the attached layout as a single building, including four R-2 units, each with its own egress stair and separated by a minimum 1 hour fire partition between each group of 4 units and stair. If the plan layout as shown does not contain a firewall then the 3 sets of units would be considered as 1 building, and if this building meets the requirements of area and height tables in Chapter 5 we interpret this layout as one building.

I have discussed this with ICC and they agreed in our phone conversation that Section 420 separation wall between groups would meet the intent of the code, but they also agree that this condition is not well spelled out in the code.

We continue to get push back from local AHJ on this issue, requiring a firewall between each set of four R-2 units.

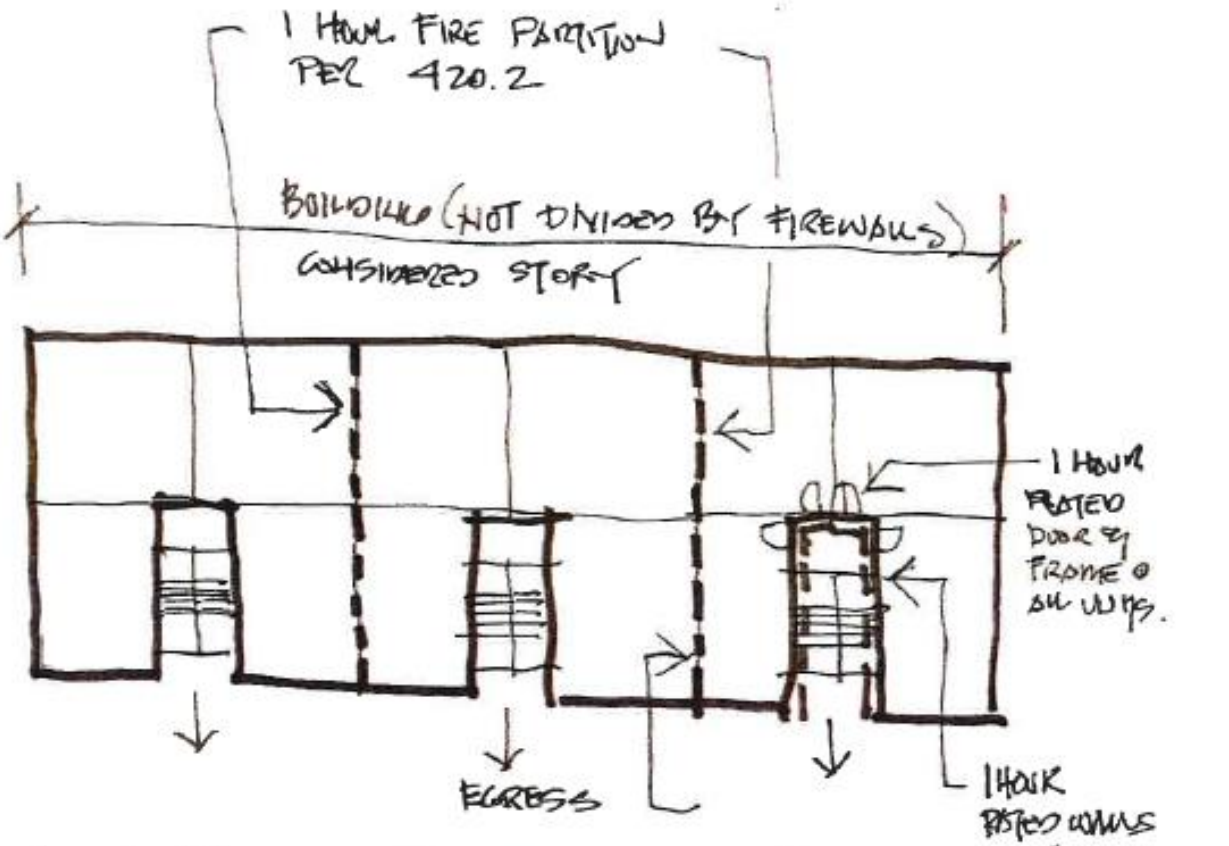
Happy to discuss, 704-348-8998.

And as always thank you for your help.

larry

HOUSING STUDIO
Larry Wolters, AIA
333 West Trade Street, Suite 300
Charlotte, NC 28202
T:704.333.7862 D:704.348.8998
www.housingstudio.com

Exhibit 'B'



1. 4 - R2 UNITS PER SINGLE STAIR (1006.3)
2. 3 STORIES MAX PER [2015 IBC TABLE / 2018 NCBC] 1006.3.2(1)
3. 13R SPRINKLER SYSTEM
4. TYPE 5A CONSTRUCTION.

2015 IBC [SECTION 1006.3.1 & COMMENTARY]
2018 NCBC [SECTION 420.2]

100
HOUSING STUDIO - CHARLOTTE, NC.
07/13/21

Exhibit 'C'

SECTION 420
GROUPS I-1, R-1, R-2, R-3 AND R-4

420.1 General. Occupancies in Groups I-1, R-1, R-2, R-3 and R-4 shall comply with the provisions of Sections 420.1 through 420.6 and other applicable provisions of this code.

420.2 Separation walls. Walls separating *dwelling units* in the same building, walls separating *sleeping units* in the same building and walls separating *dwelling* or *sleeping units* from other occupancies contiguous to them in the same building shall be constructed as *fire partitions* in accordance with Section 708.

420.3 Horizontal separation. Floor assemblies separating *dwelling units* in the same buildings, floor assemblies separating *sleeping units* in the same building and floor assemblies separating *dwelling* or *sleeping units* from other occupancies contiguous to them in the same building shall be constructed as *horizontal assemblies* in accordance with Section 711.

420.4 Smoke barriers in Group I-1, Condition 2. Smoke barriers shall be provided in Group I-1, Condition 2, to subdivide every story used by persons receiving care, treatment or sleeping and to provide other stories with an occupant load of 50 or more persons, into no fewer than two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m^2) and the distance of travel from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be in accordance with Section 709.

420.4.1 Refuge area. Refuge areas shall be provided within each smoke compartment. The size of the refuge area shall accommodate the occupants and care recipients from the adjoining smoke compartment. Where a smoke compartment is adjoined by two or more smoke compartments, the minimum area of the refuge area shall accommodate the largest occupant load of the adjoining compartments. The size of the refuge area shall provide the following:

1. Not less than 15 net square feet (1.4 m^2) for each care recipient.
2. Not less than 6 net square feet (0.56 m^2) for other occupants.

Areas or spaces permitted to be included in the calculation of the refuge area are corridors, lounge or dining areas and other low-hazard areas.

[F] 420.5 Automatic sprinkler system. Group R occupancies shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.2.8. Group I-1 occupancies shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.2.6. Quick-response or residential automatic sprinklers shall be installed in accordance with Section 903.3.2.

[F] 420.6 Fire alarm systems and smoke alarms. Fire alarm systems and smoke alarms shall be provided in Group I-1, R-1, R-2 and R-4 occupancies in accordance with Sections 907.2.6, 907.2.8, 907.2.9 and 907.2.10, respectively. Single- or multiple- station smoke alarms shall be provided in Groups I-1, R-2, R-3 and R-4 in accordance with Section 907.2.11.

SECTION 421
HYDROGEN FUEL GAS ROOMS

[F] 421.1 General. Where required by the *International Fire Code*, hydrogen fuel gas rooms shall be designed and constructed in accordance with Sections 421.1 through 421.7.

[F] 421.2 Definitions. The following terms are defined in Chapter 2:

GASEOUS HYDROGEN SYSTEM.

HYDROGEN FUEL GAS ROOM.

[F] 421.3 Location. Hydrogen fuel gas rooms shall not be located below grade.

[F] 421.4 Design and construction. Hydrogen fuel gas rooms not classified as Group H shall be separated from other areas of the building in accordance with Section 509.1.

[F] 421.4.1 Pressure control. Hydrogen fuel gas rooms shall be provided with a ventilation system designed to maintain the room at a negative pressure in relation to surrounding rooms and spaces.

[F] 421.4.2 Windows. Operable windows in interior walls shall not be permitted. Fixed windows shall be permitted where in accordance with Section 716.

[F] 421.5 Exhaust ventilation. Hydrogen fuel gas rooms shall be provided with mechanical exhaust ventilation in accordance with the applicable provisions of Section 502.16.1 of the *International Mechanical Code*.

[F] 421.6 Gas detection system. Hydrogen fuel gas rooms shall be provided with an approved flammable gas detection system in accordance with Sections 421.6.1 through 421.6.4.

[F] 421.6.1 System design. The flammable gas detection system shall be listed for use with hydrogen and any other flammable gases used in the hydrogen fuel gas room. The gas detection system shall be designed to activate when the level of flammable gas exceeds 25 percent of the lower flammability limit (LFL) for the gas or mixtures present at their anticipated temperature and pressure.

[F] 421.6.2 Gas detection system components. Gas detection system control units shall be listed and labeled in accordance with UL 864 or UL 2017. Gas detectors shall be listed and labeled in accordance with UL 2075 for use with the gases and vapors being detected.

[F] 421.6.3 Operation. Activation of the gas detection system shall result in all of the following:

1. Initiation of distinct audible and visual alarm signals both inside and outside of the hydrogen fuel gas room.
2. Activation of the mechanical exhaust ventilation system.

[F] 421.6.4 Failure of the gas detection system. Failure of the gas detection system shall result in activation of the mechanical exhaust ventilation system, cessation of hydrogen generation and the sounding of a trouble signal in an approved location.

[F] 421.7 Explosion control. Explosion control shall be provided where required by Section 414.5.1.

Exhibit 'D'

rated wall must be properly protected. Acceptable methods for various penetrations of fire barriers are identified in Section 714.3. The provisions of Section 707.7.1 must be used when the penetration is into an exit enclosure or exit passageway.

707.7.1 Prohibited penetrations. Penetrations into enclosures for *exit access stairways* and *ramps*, *interior exit stairways* and *ramps*, and *exit passageways* shall be allowed only where permitted by Sections 1019, 1023.5 and 1024.6, respectively.

❖ This section reminds the code user that although the penetration firestop systems do provide protection for the penetration, the code prohibits most penetrations through exit enclosures. Only penetrations of items such as sprinkler piping, necessary ductwork for stair pressurization, and electrical conduit that serve the exit enclosure are allowed. There can never be a penetration through a fire barrier that separates an adjacent exit enclosure.

707.8 Joints. Joints made in or between *fire barriers*, and joints made at the intersection of *fire barriers* with underside of a fire-resistance-rated floor or roof sheathing, slab or deck above, and the exterior vertical wall intersection shall comply with Section 715.

❖ This section contains requirements for joints or linear openings created between building assemblies, which are sometimes referred to as construction, expansion or seismic joints. These joints are most often created where the structural design of a building necessitates a separation between building components in order to accommodate anticipated structural displacements caused by thermal expansion and contraction, seismic activity, wind or other loads. Commentary Figure 715.1 illustrates some of the most common locations of these joints.

These linear openings create a "weak link" in fire-resistance-rated assemblies, which can compromise the integrity of the tested assembly by allowing an avenue for the passage of fire and the products of combustion through the assembly. In order to maintain the efficacy of the fire-resistance-rated assembly, these openings must be protected by a joint system with a fire-resistance rating equal to the adjacent assembly. It is not the intent of this section to regulate joints installed in assemblies that are provided to control shrinkage cracking, such as a saw-cut control joint in concrete (see Section 715).

707.9 Voids at intersections. The voids created at the intersection of a *fire barrier* and a nonfire-resistance-rated roof assembly or a nonfire-resistance-rated exterior wall assembly shall be filled. An approved material or system shall be used to fill the void, and shall be securely installed in or on the intersection for its entire length so as not to dislodge, loosen or otherwise impair its ability to accommodate expected building movements and to retard the passage of fire and hot gases.

❖ This new section is meant to give some prescriptive requirements for the joint formed by the intersection of a fire barrier wall and a nonfire-resistance-rated roof or wall assembly. Fire barrier walls are required to extend vertically to the roof deck. Fire barriers may also need to extend horizontally to an exterior wall. The method of sealing the resulting joint is prescribed in this section. Unlike a joint formed by a fire barrier wall and a fire-resistance-rated roof, which requires a joint meeting the test criteria of ASTM E1966 or UL 2079, this joint or void must only be filled with a material approved by the building official. It is not the intent of this section to require any performance-based tested assembly.

707.10 Ducts and air transfer openings. Penetrations in a *fire barrier* by ducts and air transfer openings shall comply with Section 717.

❖ Section 717 details the protection of ducts and air transfer openings at the point where they penetrate a fire-resistance-rated assembly. Section 717.5 indicates which situations will require the installation of a damper. As stated in Section 717.1.2, if a duct does not require a damper, the penetration of that duct through a fire-resistance-rated assembly must be protected as a through penetration in accordance with Section 714.

SECTION 708
FIRE PARTITIONS

708.1 General. The following wall assemblies shall comply with this section.

1. Separation walls as required by Section 420.2 for Groups I-1, R-1, R-2 and R-3.
2. Walls separating tenant spaces in *covered and open mall buildings* as required by Section 402.4.2.1.
3. Corridor walls as required by Section 1020.1.
4. Elevator lobby separation as required by Section 3006.2.
5. Egress balconies as required by Section 1019.2

❖ "Fire partitions," as defined in Section 202, are wall assemblies that enclose an exit access corridor, separate dwelling units, separate sleeping units, separate tenants in covered and open mall buildings and separate elevator lobbies. There are some exceptions to the requirement that corridor walls and elevator lobby walls be fire partitions. Those exceptions are found in Sections 3006.2 and 1020.1.

Corridor walls not required to be fire-resistance rated by Table 1020.1 are not required to meet this section. Elevator lobby walls not required to be fire-resistance rated by the exceptions to Section 3006.2 are not required to meet this section.

This section contains fire-resistance rating requirements, continuity requirements, opening requirements, penetration requirements, joint requirements and duct and air transfer opening requirements for fire partitions.

Exhibit 'E'

1006.2.2.4 Day care means of egress. Day care facilities, rooms or spaces where care is provided for more than 10 children that are $2\frac{1}{2}$ years of age or less, shall have access to not less than two *exits* or *exit access doorways*.

1006.2.2.5 Vehicular ramps. Vehicular ramps shall not be considered as an *exit access ramp* unless pedestrian facilities are provided.

1006.3 Egress from stories or occupied roofs. The *means of egress* system serving any *story* or occupied roof shall be provided with the number of *exits* or access to *exits* based on the aggregate *occupant load* served in accordance with this section. The *path of egress travel* to an *exit* shall not pass through more than one adjacent *story*.

1006.3.1 Egress based on occupant load. Each *story* and occupied roof shall have the minimum number of independent *exits*, or access to *exits*, as specified in Table 1006.3.1. A single *exit* or access to a single *exit* shall be permitted in accordance with Section 1006.3.2. The required number of *exits*, or *exit access stairways* or *ramps* providing access to *exits*, from any *story* or occupied roof shall be maintained until arrival at the *exit discharge* or a *public way*.

TABLE 1006.3.1
MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS PER STORY

OCCUPANT LOAD PER STORY	MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS FROM STORY
1-500	2
501-1,000	3
More than 1,000	4

1006.3.2 Single exits. A single *exit* or access to a single *exit* shall be permitted from any *story* or occupied roof where one of the following conditions exists:

1. The *occupant load*, number of *dwelling units* and common path of egress travel distance does not exceed the values in Table 1006.3.2(1) or 1006.3.2(2).
2. Rooms, areas and spaces complying with Section 1006.2.1 with *exits* that discharge directly to the exterior at the *level of exit discharge*, are permitted to have one *exit* or access to a single *exit*.
3. Parking garages where vehicles are mechanically parked shall be permitted to have one *exit* or access to a single *exit*.
4. Group R-3 and R-4 occupancies shall be permitted to have one *exit* or access to a single *exit*.
5. Individual single-story or multistory *dwelling units* shall be permitted to have a single exit or access to a single *exit* from the *dwelling unit* provided that both of the following criteria are met:
   - 5.1. The *dwelling unit* complies with Section 1006.2.1 as a space with one *means of egress*.
   - 5.2. Either the *exit* from the *dwelling unit* discharges directly to the exterior at the *level of exit discharge*, or the *exit access* outside the dwelling unit's entrance door provides access to not less than two approved independent *exits*.

1006.3.2.1 Mixed occupancies. Where one *exit*, or *exit access stairway* or *ramp* providing access to *exits* at other *stories*, is permitted to serve individual *stories*, mixed occupancies shall be permitted to be served by single *exits* provided each individual occupancy complies with the applicable requirements of Table 1006.3.2(1) or 1006.3.2(2) for that occupancy. Where applicable, cumulative *occupant loads* from adjacent occupancies shall be considered in accordance with the provisions of Section 1004.1. In each *story* of a mixed occupancy building, the maximum number of occupants served by a single *exit* shall be such that the sum of the ratios of the calculated number of occupants of the space divided by the allowable number of occupants indicated in Table 1006.3.2(2) for each occupancy does not exceed one. Where *dwelling units* are located on a story with other occupancies, the actual number of *dwelling units* divided by four plus the ratio from the other occupancy does not exceed one.

SECTION 1007
EXIT AND EXIT ACCESS DOORWAY CONFIGURATION

1007.1 General. *Exits*, *exit access doorways*, and *exit access stairways* and *ramps* serving spaces, including individual

TABLE 1006.3.2(1)
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE
Basement, first, second or third story above grade plane	R-2[a,b]	4 dwelling units	125 feet
Fourth story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 3048 mm.
NP = Not Permitted.
NA = Not Applicable.
a. Buildings classified as Group R-2 equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with *emergency escape and rescue openings* in accordance with Section 1030.
b. This table is used for R-2 occupancies consisting of *dwelling units*. For R-2 occupancies consisting of *sleeping units*, use Table 1006.3.2(2).

Exhibit 'F'

would be for maintenance and service personnel who could be on the different levels. Exit access travel would still have to meet Table 1017.2. If this facility is an open parking garage, it could have one exit access stairway compliant with Sections 1017.2, Exception 1, and 1006.3.2, Exception 1.

Group R-3 is limited to no more than two dwelling units per building. Often these units are townhouse style with direct exits at grade or one unit on top of another. Residents in Group R-3 and R-4 congregate residences typically operate as a single-family home. The Fair Housing Act includes no discrimination based on familial status (i.e., family cannot be determined by blood or marriage). Many court cases have been filed under the Fair Housing Act (FHA) requiring that group homes be permitted to operate similar to a single-family home as a point of nondiscrimination. For additional information on the FHA, see the commentaries at the beginning of Chapter 11 and under Section 1107. In either configuration, per Item 4, each unit is required to have only one exit leading from the building. In a multistory unit, any interior stairway would be considered an exit access stairway (Section 1019.3, Exception 2) and would be part of the exit access travel distance in Table 1017.2.

Item 5 is based on decades of practice within an individual dwelling. Item 4 addresses single exits for a Group R-3 building; one or two apartments could be provided in a mixed-use building and still be considered Group R-3. This exception could be used within the unit. Multistory apartments may also be provided within Group R-2 high-rise residential buildings.

In Group R-2, R-3 and R-4 facilities with multistory dwelling units, the means of egress from a dwelling or sleeping unit is typically permitted to be from one level only. In a Group R-2 apartment- or townhouse-style building, if the building is sprinklered with an NFPA 13 or 13R system and the common path of travel from the most remote point on any level to the exit door from the unit itself is 125 feet (22 860 mm) maximum (see Section 1006.2.1), that unit may have only one means of egress. Section 1006.2.1, Exception 1, provides for an occupant load of 20, rather than the 10 occupants allowed in Table 1006.3(2). Therefore, this could allow apartments of up to 4,000 square feet (185.81 m²). An exit access stairway would be permitted within the unit as part of the exit access travel distance (Section 1019.3, Exception 2). Once the occupants exit the unit itself, however, they must be outside at grade or the floor level must have access to two or more means of egress for all tenants, depending on the number required for the building as a whole [see Commentary Figures 1006.3.2(1) and 1006.3.2(3)]. The common path of egress within the unit would be part of the overall exit access travel distance of 250 feet (45 720 mm) required in Table 1017.2). It is not the intent to allow this exception for apartment-style dwelling units in conjunction with the allowances for a single-exit building. The emergency escape and rescue opening addressed in Section 1029 does not count toward the required number of exits.

TABLE 1006.3.2(1). See below.

❖ Per Note b, this table addresses when single exits can be provided from stories in Group R-2 occupancies having dwelling units only, such as apartments and condominiums. For Group R-2 occupancies with sleeping units, such as dormitories, sororities, fraternities, convents, monasteries or boarding houses, see Table 1006.3.2(2). The second row is to clarify that buildings containing Group R-2 single-exit buildings cannot be four stories or taller. In addition to meeting the number of dwelling units per floor and exit access travel distance, these buildings must be equipped throughout with an NFPA 13 or 13R sprinkler system and an emergency escape and rescue opening must be provided in every bedroom (Note a). The exit access travel distance would be measured from the most remote point in the unit to the exit from the floor. This is different from the travel distance in Section 1006.2.1, Exception 1 where the travel distance is measured to the door of the unit. However, in order to be able to use the single-exit building provisions, each unit must also meet the single-exit space requirements, so the occupant load of each apartment is limited. See Commentary Figures 1006.3.2(2) and 1006.3.2(3) for examples of the differences. Formal committee interpretation 21-14 states that this table allows for groups of four units on a story to have access to a single exit. These units would have to be separated in accordance with Section 420, but would not have to be separated by fire barriers or fire walls.

See the commentary to Table 1006.3.2(2) for additional discussion on single-exit building options.

This table is not intended to work in combination

TABLE 1006.3.2(1)
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE
Basement, first, second or third story above grade plane	R-2[a, b]	4 dwelling units	125 feet
Fourth story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 3048 mm.
NP = Not Permitted.
NA = Not Applicable.
a. Buildings classified as Group R-2 equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with *emergency escape and rescue openings* in accordance with Section 1030.
b. This table is used for R-2 occupancies consisting of *dwelling units*. For R-2 occupancies consisting of *sleeping units*, use Table 1006.3.2(2).