City of Kansas City, Missouri, Department of Codes Administration

Code Connection

The customer newsletter for the construction and development community.

CITY OF FOUNTAINS
HEART OF THE NATION

KANSAS CITY

JANUARY 2005

Holiday Schedule:

The Department of Codes Administration (DCA) offices will be closed on the following dates:

Monday, January 17, 2005
Martin Luther King Jr. Day

Monday, February 21, 2005
President's Day

In this issue:

2003 IRC UPDATE REQUIRED FOR MASTER PLANS

The City of Kansas City, Missouri, has adopted the *2003 International Residential Code* (IRC) with an effective date of August 23, 2004. DCA has established a grace period for obtaining all one- and two-family building permits and master plan building permits using the 2000 IRC until March 31, 2005. Please note that all Master Plans reviewed under the 2000 IRC will no longer be valid for obtaining building permits after the grace period. During the grace period the applicant may request that the plans be reviewed under the 2000 or the 2003 IRC. If the applicant does not specify the desired code, the 2000 IRC will be used. The code edition determined by the building permit application date will apply for the duration of the project, including all other trade permits issued. Please be aware that all plans being submitted for review under the provisions of the 2003 IRC shall be required to show the braced wall lines, the location of the braced wall panels and detail the type of wind bracing used. Please see IB 100 for all other items required to be shown on the plans for review.

For residential trade permits that are not associated with a building permit (e.g. an electrical service upgrade or a plumbing renovation on an existing building, etc.), the deadline for the use of the 2000 IRC will remain December 31, 2004. For all commercial projects, the deadline for the use of the *2000 International Building Code* (IBC) code package will remain December 31, 2004.

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JANUARY 2005

Published by the City of Kansas City, Missouri, Department of Codes Administration

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PRESCRIPTIVE WALL BRACING PROVISIONS FOUND IN THE IRC

The International Residential Code (IRC) Section R602.10 provides prescriptive wall bracing provisions for the construction of wood-framed one- and two-family dwellings and townhomes. The amount and location of required bracing is dependent on the number of stories and size of the structure. For the use of the IRC, a seismic design category A and a 90 mph design wind speed is required – these are the least restrictive values found in Table R602.10.1. Eight different bracing options are provided, including angled let-in 1x4 bracing, angled strap bracing, wood structural panel sheathing, structural fiberboard sheathing, etc. (Note that the angled let-in or strap bracing method is not permitted for the first story of a 3-story structure.)

In general, braced wall panels shall be 48" in length and shall be located no more than 25 feet on center. There shall be a panel within 12.5 feet of each corner. Options for braced wall panels of less than 48" in length are also provided, either for buildings that are completely sheathed with wood structural panels (See Section R602.10.5) or if using the alternate panel details (See Section R602.10.6). In addition, DCA will accept the use of the following additional narrow wall bracing methods as prescriptive options:

- 2004 IRC Supplement Table R602.10.5, Footnote c;
- 2004 IRC Supplement Section R602.10.6.2; and,
- *APA—The Engineered Wood Association* Form TT-089, "Narrow-Wall Bracing Without Hold Downs For Use In A Fully-Sheathed House" (available under the Publications link at www.apawood.org).

For any dwelling where the prescriptive bracing methods are not met, the lateral bracing shall be designed by a professional engineer. For all projects submitted for review under the 2003 IRC, all required bracing shall be detailed on the plans. (See related article on page 1.)

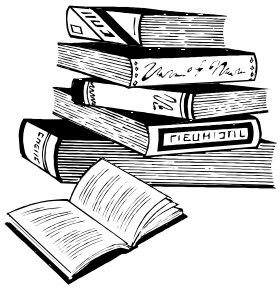
If you have any questions, you may contact DCA's Code Question Hotline at (816) 513-1511.

DCA STAFF CHANGES

Tiffeny Peoples was promoted from Customer Service Specialist to Administrative Assistant II in the Permits Division.
José Portuguez was promoted from Administrative Officer to Division Manager of Business Services.
Lynn Gant was appointed Division Manager of Customer & Computer Services.
Tom Briggs left DCA to pursue other opportunities.

CODE CHAT

by Gary Marker, R.A.
Division Manager of Plans Review



WHAT'S NEW WITH PEDESTRIAN WALKWAYS?

The recently adopted 2*003 International Building Code* (and previously adopted 2000 edition) has many similarities with the UBC previously used for many years in KCMO. However, in the interest of creating a new standard acceptable to all member groups of the International Code Council, some differences become apparent. This article will attempt to highlight some of those differences as they apply to the subject of pedestrian walkways and tunnels.

What is it?

While the UBC defined a pedestrian walkway, IBC Section 3104.1 provides only a working description i.e., "…connections between buildings…located at, above, or below grade level, that are used as a means of travel by persons. The pedestrian walkway shall not contribute to the building area or the number of stories." Although the UBC specifically stated that pedestrian walkways need not be considered as buildings, IBC Section 3104.1 merely makes the implication while leaving the interpretation up to the reader. In either case, the intent of the code is to permit pedestrian passageways between buildings, without requiring the passageways themselves to meet all of the construction requirements for the connected buildings while still permitting the connected buildings to be considered as separate structures regarding height, area and type of construction.

Separate Structures

As in the UBC, IBC Section 3104.2 specifically states that connected buildings shall be considered to be separate structures. An exception to this IBC section which refers to buildings on the same lot in accordance with Section 503.1.3 has caused some confusion. IBC Section 503.1.3 states that buildings on the same lot shall be regulated as separate buildings or shall be considered as portions of one building if the height and are of each building and the aggregate area of buildings are within the limitations of Table 503 as modified by Sections 504 and 506.

While this section implies that there may be two ways of handling multiple buildings on the same lot that are connected by pedestrian walkways or tunnents, DCA Interpretation Number 2004-031 clarifies that the provisions of IBC Section 3104.5, Exception 3, are intended to refer to a situation wherein the attached buildings fall within the allowable height and aggregate area limitations of Table 503 (as modified by IBC Sections 504 and 506) for a single building.

2003 IBC Section 3104.2 has an added exception clarifying that, for the purpose of calculating the number of Type B units required by Chapter 11, structurally connected buildings shall be considered one structure.

Construction

While both the IBC and UBC require noncombustible construction for pedestrian walkways, the UBC had two exceptions, one permitting one-hour or heavy timber construction for walkways attached to combustible buildings and the other allowing combustible construction for walkways on grade with both sides open. IBC Section 3104.3 has only one exception permitting combustible walkway construction where the connected buildings are of combustible construction.

(Continued on page 6)

DCA INTERPRETATIONS

#/CODE

QUESTION

CI2005-010

Item #5 of this section requires that "Status indicators and controls for air-handling systems" be provided. What 'controls' are required?

2003 IBC
Sec. 911.1

ANSWER

The level of control to be provided in the fire command center will depend on the level of control capable in the air-handling system. The intent is to provide the fire department the ability to selectively regulate the system as needed. Ideally the ability to control portions of the system will coincide with fire/smoke zones in the building (e.g. floor by floor). The command center controls might include, where feasible, the capability for switching units on or off, opening or closing control dampers by zone, etc. The design engineer of record shall provide recommendations for these controls based upon the particulars of the building air-handling system. At a minimum, the ability to shut off all air-handling systems shall be provided, along with status indicators.

If a mechanical smoke-control system as regulated by IBC Section 909 is provided, see IBC 911.1, item #6, and IBC 909.16 for required controls.

QUESTION

CI2005-011

In which zoning districts is a yard waste composting facility allowed?

Chapter 80
Sec. 80-20

ANSWER

Yard waste composting is defined by the Zoning Ordinance as a facility that processes grass, leaves, brush and other organic landscape materials from more than one household, institution or business establishment. This process is further defined as the controlled biological decomposition of organic material in the presence of air and water to form a humus-like material. Controlled methods of composting include mechanical mixing and aerating, ventilating the materials by dropping them through a vertical series of aerated chambers, or placing the compost in piles out in the open air and mixing it or turning it periodically.

This use is permitted in zoning districts RA - Agriculture, MR - Materials Reprocessing, M-1 - Light Industry, M-2 - Heavy Industry and M-3 - Heavy Industry Residual Use as described below:

RA - Agriculture - Yard waste composting is permitted as an accessory use to a farming operation as allowed in this district. Materials may be delivered to the site, processed and incorporated into the soil used for farming.

MR - Materials Reprocessing - A yard waste composting facility is permitted as regulated under solid waste processing facilities and solid waste separation facilities in this district.

M-1 - Light Industry - A yard waste composting facility is permitted within a building enclosed with walls and a roof as regulated under material or waste processing facilities in this district.

M-2 - Heavy Industry and M-3 Heavy Industry Residual Uses - A yard waste composting facility is permitted as regulated under waste processing in this district.

Dumping or burying yard waste on a property without composting or processing the materials as described above may be determined to be a sanitary landfill or refuse dump. A refuse dump is permitted as a conditional use requiring Board of Zoning Adjustment approval. A sanitary landfill is permitted in zoning district MR - Materials Reprocessing. Please contact the City Planning & Development Department at 816-513-2846 for information on filing for approval of a conditional use or rezoning.

FROM THE FILES…
REAL CODE MODIFICATION REQUEST CASE HISTORIES

ELEVATOR PIT DRAINAGE

By Gary Marker, R.A.,
Division Manager of Plans Review

The KCMO Code of Ordinances Section 18-6 states that "The details and actions of granting modifications (to code requirements) shall be recorded and entered in the files of the Department of Codes Administration." Doing so permits one to rationalize any apparent code discrepancies by investigating the files for the building in question. In order to facilitate this, DCA employs the Code Modification Request process wherein the applicant submits a form stating the location of the property, the applicant name and the proposed code alternate. Once this form is submitted along with the required application fee, the request is reviewed and either approved, conditionally approved or denied. The Code Modification Request process is outlined in DCA Information Bulletin Number 101 (available on the web at www.kcmo.org). However, I am frequently asked, "What makes a "good" Code Modification Request?" This is another installment in a series of articles to attempt to answer that question by presenting actual case histories of CMR's which have been APPROVED by DCA.

> The subject of this request is a new, 3-story, Group R-2 apartment building that is currently under construction. 1996 ANSI A17.1 rule 106.1 b (3) requires this elevator pit to be provided with either a drain or a sump. In lieu thereof, the applicant proposes to install a water detection system that will send an alarm to the building management office in the event of a leak. Further, the applicant agrees that a sump pump shall be installed in the event that a future inspection reveals that water has entered the pit. This request was determined to meet the intent of the code and was, therefore, approved.

This approval recognized that the intent of the code is to prevent the accumulation of water in the elevator pit, and that the combination of a moisture alarm system and a guarantee that a sump would be installed in the event of water intrusion would preclude the likelihood of such a situation occurring. Be sure to watch future editions of the Code Connection for more informative and interesting tales from the CMR files.

CODE CONNECTION RENEWAL FORM

In order to continue receiving this informative newsletter, please complete this form and return it along with the $10.00 renewal fee to Pat Williams, Department of Codes Administration, 414 East 12 Street, 5th floor, Kansas City, MO 64106.

Company: _____

Name: _____

Address: _____

City, State, Zip: _____

Telephone Number: _____

E-Mail Address: _____

Contents

While the UBC limited the use of a pedestrian walkway "exclusively as a pedestrian trafficway", IBC Section 3104.4 additionally clarifies that such walkways may contain "only such materials and decorations approved by the building official". This does not mean that the building official must pick out the paint color, but does effectively eliminate the use of pedestrian walkways for storage or other occupancy.

Walkway Separation From Buildings

The UBC required openings between buildings and pedestrian walkways to meet the requirements of the code for openings in exterior walls based on location on property or, at a minimum, that openings be protected as required for openings in corridors. An exception permitted the omission of opening protection where the walkway was at least 50 percent open on each side.

IBC Section 3104.5 requires pedestrian walkways to be separated from buildings by two-hour fire barrier walls extending not less than 10 feet horizontally from the sides and 10 feet vertically above and below the point of connection to the walkway. The IBC further states that openings in the 10 foot fire barrier extension shall be protected by assemblies having not less than ¾ hour fire protection ratings. This section contains four exceptions permitting the omission of the fire-resistance rating for the separation walls. First, where the distance between the buildings is at least 10 feet and the buildings and walkway are protected by sprinklers and a sprinkler-protected glass wall. Second, an exception similar to that found in the UBC for walkways not less than 50 percent open on the sides. Third, for buildings that function as one structure as provided for in IBC Section 503.1.3, and, fourth, where the buildings are considered as separate structures and are required by IBC Section 704 to have a separation greater than two hours, the separation may be omitted where the walkway is equipped with an automatic sprinkler system. All noted exceptions are limited to walkways not more than 40 feet or three stories above grade (non-sprinklered) or 55 feet or five stories above grade (sprinklered).

The IBC 2003 contains an amendment to the above-mentioned section, eliminating the final sentence which, in the 2000 IBC, stated that the minimum height of a pedestrian walkway above grade shall be 8 feet.

Public Way

Both UBC and IBC permit pedestrian walkways over public ways where constructed in accordance with the requirements of local jurisdictions. IBC Section 3104.6 also refers to IBC Chapter 32 regarding encroachments into the public right-of-way, which is further amended by the KCMO Code of Ordinances. Such construction in KCMO would also be subject to review/approval by the KCMO Department of Public Works.

Required Exits

While the UBC only permitted pedestrian walkways at grade to be used as exits (unless accessed from a horizontal exit), IBC Sections 3104.7 through 3104.9 permit all pedestrian walkways and tunnels to be used as exits and provide requirements for minimum width and maximum length of travel. The maximum travel distances within pedestrian walkways are permitted to be increased by the provision of open sides, sprinklers or both.

(Continued on page 7)

CODE CHAT *(Continued from page 6)*

Tunneled Walkways

IBC Section 3104.10 addresses the hazard associated with the lack of fire department access to tunneled walkways and, therefore requires a minimum of a two-hour separation, with no exceptions. Tunneled walkways were not addressed in the UBC.

Ventilation

While the UBC did not require ventilation for pedestrian walkways, IBC Section 3104.11 requires that smoke and heat venting, designed in accordance with NFPA 204, be provided for all enclosed walkways and tunneled walkways, with no exceptions.

While UBC and IBC methodologies for regulating pedestrian walkways and tunneled walkways vary somewhat in specifics, the intent is the same—to achieve a high level of life safety while permitting flexibility in design. For questions regarding this subject or any other code requirements, feel free to call the DCA Code Question Hotline at (816) 513-1511, where a helpful associate stands ready to provide assistance in applying code interpretations to individual situations. Or you may obtain e-mail answers to code questions from gary_marker@kcmo.org.

NATIONAL CALENDAR

January	
13-16	National Association of Home Builders International Builders Show, Orlando, FL
February	
2-4	ICC Evaluation Service Committee meeting, Los Angeles, CA
5-9	American Society of Heating, Refrigerating and Air-Conditioning Engineers Winter meeting, Orlando, FL
23-25	National Frame Builders Association Frame Building Expo, Columbus, OH
21-March 6	ICC Codes Forum, Cincinnati, OH
March	
13-15	National Green Building Conference, Atlanta, GA
May	
8-11	Solutions to Coastal Disasters Conference 2005, Charleston, SC
8-14	Building Safety Week

DCA PLANS REVIEW AVERAGE TURNAROUND TIMES

Four-Week Averages as of January 2, 2005

New Commercial Bldgs. & Additions ..... 3.7 weeks

One- and Two-Family Dwellings ..... 1 day/plan

All Other Projects ..... 0.7 weeks/plan

Quality Control Review (QCR) ..... <2 days

Code Connection

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Kansas City, Missouri 64106

ADDRESS CORRECTION REQUESTED

Visit DCA on the Internet at www.kcmo.org/codes/

DCA Telephone Numbers:
Area Code 816

Director's Office	513-1472
Deputy Director's Office	513-1478
City Hall Permit Center	513-1500 (option 3)
Plans Review Permit Center	513-1500 (option 5)
Commercial Plans Review	513-1500 (option 5)
One- &Two-Family Plans Review	513-1500 (option 5)
Inspections Division	513-1500 (option 2)
Special Inspections	513-1500 (option 2)
Investigations Division	513-1500 (option 2)
Business Services Division	513-1500 (option 3)
Contractor Licensing & Registration	513-1500 (option 6)

FAX Services/Numbers:

FAX Permit Process	513-1456
FAX Inspection Requests	513-1536
FAX Publication Purchases	513-1456
FAX One- and Two-Family Plans Branch	513-1505
FAX Plans Review Comments	
Call to request your comments	513-1500 (option 4)

Code Information:

Zoning, Floodplain, Airport Height Zone, Permit Application Information	513-1500 (option 3)
Code Questions, Plans submittal Information, Plans Review Status	513-1500 (option 5)

Publication Ordering Information:

The following publications are available at either DCA office.

You may also call 513-1500 (option 3) and request a credit card authorization form and then place your order via Fax.

1. **Chapter 18, Kansas City Building and Rehabilitation Code** and related ordinances. (Chapter 18 adopts the model codes by reference and identifies local amendments to the model codes.) Price: $6.00

2. **Special Inspections Program Manual.** Price: $5.00

3. **Fee Schedule.** Price: $2.50

The following publications are available from the City Planning and Development Department (513-2846).

1. **Chapter 80, Kansas City Zoning Ordinance** Price: $25.00
2. **Chapter 66, Subdivision Regulations** Price: $6.00

The following publications are available from the International Code Council Regional Office (455-3330).

1. ***2003 International Building Code***
2. ***2003 Uniform Plumbing Code***
3. ***2003 International Mechanical Code***
4. ***2002 National Electrical Code***
5. ***20003 International Residential Code***