

MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
BUILDING CODES COMMITTEE

June 20, 2007

Maricopa Association of Governments Office  
Cholla Room  
Phoenix, Arizona

COMMITTEE MEMBERS

Michael Clack, Scottsdale, Chairperson  
Ken Sowers, Avondale  
Phil Marcotte, Buckeye  
\*Mike Tibbett, Carefree  
\*Cave Creek  
A-Alex Banachowski, Chandler  
\*Art Swanson, El Mirage  
\*Peter Johnson, Fountain Hills  
\*John Smith, Gila Bend  
\*Jo Rene DeVeau, Gila River Indian  
Community  
A-Ray Patten, Gilbert  
Bryan Woodcox for Deborah Mazoyer,  
Glendale  
\*Ed Kulik, Goodyear

\*Chuck Ransom, Litchfield Park  
Tom Ewers, Maricopa County  
\*Steven Hether, Mesa  
V- Bob Lee, Paradise Valley  
Cheryl Mullis for Dennis Marks, Peoria  
Tom Wandrie, Phoenix  
\*Dennis Street, Queen Creek  
Forrest Fielder, Surprise  
\*Michael Williams, Tempe  
\*Mario Rochin, Tolleson  
Bob Cooperider, Youngtown  
Lauren Barnett for Rus Brock, Home  
Builders Association

OTHERS IN ATTENDANCE

Heidi Pahl, MAG  
Steve Gross, MAG  
Robert Palmer, Southwest Gas  
Joe White, Phoenix

Bill Witting, Phoenix  
John Bauer, Phoenix  
Jim Martens, Phoenix  
Brian O'Donnell, Southwest Gas  
Jim Ford, Scottsdale

\*Those members neither present nor  
represented by proxy.

A-Those members participating via  
audioconference

V-Those members participating via  
videoconference

1. Call to Order

Chairperson, Michael Clack, called the June 20, 2007 meeting of the MAG Building Codes Committee (BCC) to order at 2:25 p.m.

2. Introductions

Voting members Alex Banachowski and Ray Patten attended via telephone conference call and Bob Lee attending via videoconference.

3. May 16, 2007 Meeting Minutes

It was moved by Ken Sowers, seconded by Bryan Woodcox and unanimously recommended to approve the May 16, 2007 meeting minutes.

4. Call to the Audience

No comments were made from the audience.

5. Comments From the Committee

Bob Lee announced that the Arizona Building Officials Annual Business Meeting (AZBO ABM) will be held in Flagstaff, July 25-27, 2007. Mr. Lee noted that the AZBO ABM will have a roundtable discussion on state codes, with guests from the states of Utah, Washington, Virginia, Colorado and New Jersey discussing what went right in their processes of implementing state codes. Bob Lee announced that the next AZBO Code Review and Development Committee meeting is June 29, 2007 at 10 a.m. at the Arizona League of Cities and Towns. He said that Mike Baker will resign as chair of that committee so they are looking for a new chairperson.

Forrest Fielder announced that at this time there is no Power Up meeting scheduled.

Forrest Fielder said that the International Code Council (ICC) has announced the initiation of a new program which is to approach the federal legislature with a resolution in support of creating a grants program for building safety and fire prevention. Mr. Fielder said this is based on the understanding that from an emergency planning perspective - mitigation gets the biggest bang for the buck - being ready for an emergency is very cost-effective way to plan for them. He said this national organization is asking for support from chapter representatives and elected officials at the national level. He said a national resolution is being distributed and this will be discussed at upcoming chapter events.

6. Backflow Preventers

Michael Clack introduced the topic. Jim Ford, Deputy Fire Marshall for the Scottsdale Fire Department, provided an overview of what the city of Scottsdale does with backflow preventers. Mr. Ford said Scottsdale is in favor of fire sprinklers in commercial and residential buildings. Mr. Ford explained that about 10 years ago, the State of Arizona created a committee to discuss backflow preventers and their necessity on class 1 and 2 systems. He said he was a member of this committee. He said the basic ruling was that for

fire systems, jurisdiction falls under state or local fire code. He mentioned that firefighting personnel and water purveyors are supposed to work together to create a system that works best for that jurisdiction. He said for new systems, Scottsdale installs backflow preventers on sprinkler systems as part of a riser assembly. He noted that there has not been one case of a sprinkler system contaminating a water supply in Scottsdale.

Forrest Fielder asked what kind of coefficient is used to analyze the flow of water out of the heads, based on the effect of that backflow assembly on the riser. Jim Ford replied that for new construction, every one of the devices comes with head loss and is fairly easy for the sprinkler contractors to calculate. Forrest Fielder asked if it was device-specific. Jim Ford replied yes and different devices have different factors and pressure losses.

Tom Wandrie introduced the city of Phoenix guest speakers. Mr. Wandrie noted that in the city of Phoenix, the State Plumbing Code, Arizona Revised Statutes, Administrative Code and City Code are all in conflict and Phoenix requires clarification to determine if backflow preventers are needed for class 1 and 2 systems.

John Martens, Phoenix Fire Department, stated their preference is to rely on check valves on fire alarm systems that have been required by the National Fire Protection Association (NFPA 13), in lieu of backflow preventers on class 1 and 2 systems that come directly off the city water supply. Mr. Martens stated that there is no history of cross-contamination from the fire sprinkler system into a drinking water supply in the city of Phoenix.

Tom Wandrie asked what base pressure is used when designing a sprinkler system. John Martens replied the water pressure reading plus 10PSI, anything over 90 pounds of pressure gets taken down to 80 pounds for new construction. He added that successful sprinkler activation can occur with 80 percent of pressure.

Tom Wandrie asked why there is objection to putting in backflow preventers. John Martens responded that there is no history of contamination between class 1 and 2 systems so with such little possibility they do not think it is necessary to install backflow preventers. He noted that it adds complexity to the system.

Michael Clack asked if there is a requirement to test backflow preventers annually. John Martens replied that there is a requirement in the NFPA code to check them annually, break them down every five years and report deficiencies. Mr. Clack asked if this is being done. Mr. Martens replied yes, and that the owner, tester and city are responsible for ensuring testing occurs.

Phil Marcotte asked if the same holds true for residential sprinkler systems. John Martens replied that there is no residential requirement in the NFPA code because they use completely potable pipe, but there is some language in the appendix that recommends it.

Tom Wandrie introduced John Bauer, the Plumbing/Mechanical Inspections Field Supervisor for the city of Phoenix. Mr. Bauer distributed several handouts that he discussed. Mr. Clack announced that the handouts are available on the MAG Web site.

John Bauer said the plumbing/mechanical section of code requires backflow preventers on the fire line but the ARS R18415 exempts class 1 and 2 fire systems. Mr. Bauer cited cases

where black water has come back into the potable water system. He said the city of Phoenix requires certified testers to test backflow preventers and send results back to Phoenix staff.

Cheryl Mullis asked if backflow preventers were a requirement in the 1994 Arizona State Plumbing Code. John Bauer replied that this is only part of the 2006 Uniform Plumbing Code (UPC). Tom Wandrie clarified that it is stated vaguely in the 1994 State Plumbing Code, but it is more clearly stated in the 2006 UPC. Cheryl Mullis noted that there are double checks on fire sprinkler systems in the IPC.

Cheryl Mullis noted that some cities are discussing the use of reclaimed water to flush toilets in hotels in order to reduce the hotel water bill.

Bill Witting, City of Phoenix Backflow Prevention Program, distributed the findings of a study and discussed it with the group. Mr. Witting said the city of Mesa, among others, participated in this study. He noted that if backflow preventers are not installed it is an OSHA violation.

Cheryl Mullis asked if there was any documentation on a double check valve stopping a sprinkler system from working. Bill Witting replied no. Joe White, Fire Protection Engineer for the City of Phoenix said he knows of instances where backflow preventers have failed where they are installed. Bill Witting said that any piece of mechanical equipment that is not maintained will eventually fail and that is why there is need for a backflow prevention program.

Jim Ford said that in 1991 the State of Arizona formed a committee to research backflow preventers on sprinkler systems. After two years, the committee's research concluded that there were no instances of contamination to a water supply from devices placed on fire sprinkler systems. He noted that at that time, the Attorney General said only listed products could be installed on fire sprinkler systems and the authority falls to the fire department to ensure these systems work. He said that NFPA 25 requires that sprinkler/alarm check valves are tested to make sure they are working correctly. He said based on that conclusion, Scottsdale Fire Department installs backflow preventers as one device that can be inspected and tested once a year. He noted that these devices give them an increased level of safety and protection for citizens and firefighters.

Joe White asked if there is anything in the state code or plumbing code that requires backflow preventers to be installed retroactively. Bill Witting replied no.

Tom Wandrie asked what the difference is between a double check valve assembly and a double check valve detector assembly. Bill Witting replied they are the same, noting that the double check valve detector assembly will be able to detect water leaks and water theft sooner.

Tom Wandrie asked if Phoenix has any information from their water department as to where the City of Phoenix would require the double check valve per the new code. Mr. Witting replied it is required at the property line and that each installation needs an independent evaluation.

Tom Wandrie asked where backflow preventers should be located to comply with the 2006 IPC. Michael Clack said the code does not specify where they should be located.

Cheryl Mullis stated that in Peoria, backflow preventers are being stolen. Bill Witting confirmed that small brass and copper backflow preventers are being stolen. Jim Ford said one of the reasons Scottsdale moved the location of their backflow preventers to the interior riser assembly is to protect them from vandalism. He added that they put tamper switches on backflow preventers in public areas.

Michael Clack said he would appreciate an update on how the City of Phoenix proceeds. Tom Wandrie replied that a resolution will be drafted as well as a technical guide.

#### 7. Sign Permits and Inspections

Tom Wandrie said that the City of Phoenix does not inspect signs to see if they are UL certified; he said Underwriters Laboratories (UL) does that. Mr. Wandrie noted that the city of Phoenix looks for the UL label on the sign. Forrest Fielder said his specific interest was with sign manufacturers that misused the UL labels. Mr. Fielder said that the city of Surprise will migrate to a requirement that sign permits will be limited to those who participate in the UL program.

Cheryl Mullis asked if the Arizona Sign Association list of members would be a helpful list to determine which manufacturers are UL certified. Forrest Fielder said the Arizona Sign Association has not yet taken a position on this issue. Michael Clack mentioned that in San Antonio, they required a UL label and only licensed manufacturers were allowed to put together the signs. He said he likes the idea of having a UL certification better. Forrest Fielder said that anecdotal information indicates that signs are a surprisingly high cause of fires.

#### 8. Regional Plan Review/MAG Building Inspectors/Plans Examiners (RPR/BI/PE) Forum Update

Ray Patten said there was no Regional Plan Review (RPR) meeting last month and there is no scheduled meeting at this time.

Cheryl Mullis said the MAG Building Inspectors/Plans Examiners (BI/PE) met June 19, 2007 to discuss changes to the 2006 codes. Ms. Mullis indicated that they discussed design for rainfall at 6 inches per 2 hours, the IRC exterior wall separation, and wood trusses. She thanked Scottsdale for bringing an item to discuss at the next meeting. Michael Clack said he had a question from an engineering firm in Sun City about loading and attics. Forrest Fielder said he had the same question and noted that there is new information in the code that would require substantial changes to truss packages.

Forrest Fielder announced that the BI/PE Forum is ready to tackle any issues from the MAG BCC. Mr. Lee suggested the BI/PE research weep screed.

#### 9. Updated MAG Building Codes Committee Membership

No changes were mentioned.

10. Updated Survey of Code Adoption

Cheryl Mullis said that Peoria updated some of their codes. Forrest Fielder indicated that the Surprise City Council voted to adopt the 2006 I codes including the International Fire Code and International Building Code, with an effective date of July 28, 2007.

11. Topics for Future Agendas

Bob Lee suggested cancelling the July 2007 MAG BCC meeting as done in the past, since most building officials will be present at the July AZBO Annual Business Meeting (ABM). The committee concurred.

12. Adjournment

The meeting adjourned at 3:50 p.m.