

**MINUTES OF THE
NORTH CAROLINA BUILDING CODE COUNCIL MEETING
DECEMBER 14, 1999
CHARLOTTE, NORTH CAROLINA**

All Council members were present.

THESE ARE SUMMARY MINUTES AND THE OFFICIAL MINUTES OF THIS MEETING ARE RECORDED ON TAPE. ANYONE DESIRING VERBATIM OR EXCERPTS FROM THESE TAPES SHOULD CONTACT THE ENGINEERING DIVISION, NC DEPARTMENT OF INSURANCE FOR INFORMATION ON REPRODUCTION COSTS. AMENDMENTS TO THE CODES APPROVED AT THIS MEETING ARE ATTACHED TO THESE MINUTES.

The June Council meeting will be held on June 13, 2000 at the Southern Pines Holiday Inn. The December Council meeting will be held on December 12, 2000 at the Atlantic Beach Sheraton.

Chairman Barry Gardner called the meeting to order. He introduced Wanda Edwards, the new Secretary to the Building Code Council, and new Building Code Council Members, Dan Tingen of Raleigh, who has filled the Residential General Contractor position held by Mark Trollinger and Hebert Neily, who has filled the State Agency position previously held by Harmon Byrd. The Chairman also introduced Doug Hanna, the attorney for the Building Code Council, Tim Bradley, Senior Deputy of the Office of State Fire Marshal and Dashciel Propes, Chief Deputy Commissioner of Insurance.

Chairman Barry Gardner asked Wanda Edwards to read three Resolutions honoring Harmon Byrd and Mark Trollinger, past Council members and Elaine Brown, former Secretary to the Council. All were valuable members of the Building Code Council. The Resolutions are attached.

The following items were considered:

ITEM 1. MINUTES OF JUNE, 1999 COUNCIL MEETING.

Wanda Edwards noted there had been some minor editorial and spelling corrections made to the minutes. Dan Tingen made a motion to approve the minutes as written. Aubrey Smith seconded the motion and the motion carried without dissent.

ITEM 2. APPEAL OF MECHANICAL COMMITTEE S DENIAL OF PROPOSED CODE CHANGE BY LARRY CAPPS TO ADD A SENTENCE TO THE END OF VOLUME I, SECTION 405.2 TO PERMIT DIRECT VENT APPLIANCES WITH A PROTECTED FLAME WITHIN PUBLIC SCHOOLS WITHOUT A 2-HR RATED ENCLOSURE.

Al Bass summarized the Mechanical committee s review of the proposed change. Bass stated the committee was concerned about how well the equipment would be maintained, and therefore disapproved the item.

Larry Capps representing Public Service Company spoke in favor of the code change. Capps stated this equipment is used all over the country. The use of direct vent appliances allows schools to heat one room without heating the entire building.

Ed Warner, with Department of Public Instruction School Planning, spoke to oppose the proposal. Warner stated the electrical needs of the equipment make it costly to operate. Warner stated that School Planning is concerned about vandalism of the units and the fact that the piping deteriorates with time and can result in an explosion.

Reed Jarvis, with the Fire Marshals Association Code Revisions Committee, spoke to oppose the code change stating the equipment is dangerous in occupied rooms.

Wanda Edwards read a letter from the Haywood County Schools requesting approval of infrared tube heaters. A discussion about infrared tube heaters followed. Bob Pierce stated the same technology is used for the wall-mounted units as is used for the infrared tube heaters.

Greg Mulholland made a motion to deny the appeal. Jack Neel seconded the motion. The motion carried. Robert Pierce abstained.

ITEM 3. REQUEST BY STAFF AND THE BUILDING CODE COUNCIL MECHANICAL COMMITTEE TO REWORD VOLUME I SECTION 405.2 FOR CLARITY.

Al Bass stated that while the Mechanical Committee was studying Larry Capps proposed code change, the Committee found the language in Section 405.2 to be confusing. The Committee proposes to revise Section **405.2 Public Schools** as follows:

Every comfort heating appliance installed within a building which produces an unprotected open flame shall be separated by two hour rated construction. Every fuel storage room shall be separated by two hour rated construction. Door openings shall be to the exterior and all penetrations to the interior of the building shall be protected.

Bass stated the intent is to clarify the language and to make Section 405.2 consistent with the rest of the Code. Greg Mulholland made a motion to adopt the proposed language. Marshall Knight seconded the motion. Reed Jarvis, with the Fire Marshal's Association, stated the word boiler room were omitted from the code and would like the word boiler room added in. Bass proposes the section be revised to read as follows:

Every comfort heating appliance installed within a building which produces an unprotected open flame shall be separated by two hour rated construction. Every fuel storage room and boiler room shall be separated by two hour rated construction. Door openings shall be to the exterior and all penetrations to the interior of the building shall be protected.

The motion carried. Robert Pierce abstained.

ITEM 4. REQUEST BY THE JOINT RESIDENTIAL AND STRUCTURAL COMMITTEE TO APPROVE THE CODE CHANGES PROPOSED BY THE WIND AD HOC COMMITTEE. THE JOINT RESIDENTIAL AND STRUCTURAL COMMITTEE RECOMMENDS THE FOLLOWING MODIFICATION:

In Chapter 40(B) redefine the 110 mph wind zone as follows

110 MPH Wind Zone shall include (1) areas where the wind speed is 110 mph and (2) areas within the first lot but not greater than 1500 feet from the shoreline in New Hanover, Dare, Brunswick, Onslow, Pender, Carteret, Currituck, Hyde, and Pamlico Counties.

Dan Tingen made a motion to approve the work of the Ad Hoc Committee and incorporate the changes proposed by the Joint Residential and Structural Committee. Marshall Knight seconded the motion. Tingen asked Mark Trollinger, who chaired the Ad Hoc Committee, to speak about the Ad Hoc Committee's work.

Mark Trollinger stated the committee was created in response to a mandate from the General Assembly to re-examine the wind load resistance requirements. The committee was to consider site specific information, actual storm data and housing affordability. The Committee met

during a nine-month period from February 1999 until October 1999. Trollinger thanked everyone who served on the committee. Trollinger stated the committee invited a number of experts in the field to address the committee. The committee worked on the proposed changes for nine months.

Chairman Gardner opened the hearing for anyone wishing to speak in favor of the motion.

Steve Weiss, a general contractor and member of the Ad Hoc Committee, stated there was debate about whether the code will stand up to engineering calculations. Weiss stated no one has been killed by the wind itself. Weiss stated the big storm is yet come and statistically it occurs every 500 to 1,000 years. The construction community should not be burdened with building for a 500-year storm. Weiss stated he does not believe the public is in favor of the wind codes. Weiss also stated that every time the cost of a house goes up \$1,000 it prohibits 700 people from qualifying for a mortgage. Weiss stated he has inspected the damage after hurricanes and has not found any wind damage that was not caused by improper construction or was not in older homes that were not required to meet the current code.

Paul Wilms, with the North Carolina Home Builders Association, stated that the issue before the Ad Hoc Committee was how much is enough. Wilms stated there is a sense in the General Assembly that the wind requirements have gone too far. Site specific factors had not been considered, as well as historical events and housing affordability. Wilms stated that affordability is an issue the General Assembly takes seriously.

Aubrey Smith asked Wilms to speak about the affordability issue. Wilms stated he wants to get people out of manufactured housing and into stick built housing. Wilms stated the proposed changes would result in cost increases of \$1,000 to \$1,600 for the average 1200 square foot home.

John Hitch stated that an increase in home cost of \$1,000 - \$1,600 would result in a \$10 - \$20 increase in the monthly house payment, and without codes the insurance premium increases would be as much as \$50/month.

Jay Crandall, with the National Home Builders Association, stated he wanted to make sure that the information presented to the committee agreed with what research has shown. During Hurricane Andrew the roof sheathing was a problem, and structural bracing was missing. Aubrey Smith asked Crandall if he prepared the calculations that would affirm that no tie down would be needed in the 100 mph wind zone. Crandall stated he did not prepare the calculations. Hebert Neily asked what kinds of safety factors were used in preparing calculations. Crandall stated a safety factor of 2 was used; calculations are not based on capacity, but deformation. Crandall stated that wind speeds drop off quickly when a storm hits land due to the roughness of the land. The current code does not take roughness into consideration.

Chairman Gardner opened the hearing for anyone wishing to comment against the motion.

Rod Andrew, former Chairman of the Building Code Council, stated that he observed home that were pushed off their foundations during Hurricane Hugo. Andrew stated this occurred mainly in pier and curtain construction. Andrew stated that the Structural Committee looked at Volume I after Hurricane Andrew and found the wind requirements to be substandard. The Council then adopted ASCE-7. Andrew stated that he doesn't believe the wind decreases significantly in the first 1500 feet from the shoreline, that it's more like 10 miles from the shoreline. Andrew prepared calculations showing the 100 mph shear forces on the bolts exceed the shear capacity of the bolts. Andrew stated that we are designing for a 50-year storm. We have not had a Category III storm. Andrew presented a report by Jay Crandall that appeared in a magazine. In that article Crandall had recommended the use of ASCE-7 for designing houses. Andrew stated that every 10 mph increase in the wind speed represents a

25% increase in the pressure exerted against a house. The increase is because in Bernoulli's equation the velocity is squared.

Paul Levene, with the Carolina Concrete Masonry Association, stated lessening the requirements is contrary to the minimum requirements in the model codes. The proposed changes increase the spacing of the tie down points from 6 to 26. John Miner, a general contractor in North Carolina and Florida, spoke against the proposed changes. Jeff Sciodone, with the Institute for Better Housing and Safety, stated the Institute was forced to withdraw their support for the Ad Hoc Committee. Sciodone stated the committee ignored the testimony of the experts who testified before the committee that we have not seen a storm approaching the design storm.

Daschiel Propes, Chief Deputy Insurance Commissioner, presented letters from James Witt, Director of FEMA, and Jim Long, Commissioner of Insurance. Propes stated this was the first time Jim Long had ever addressed the Council, but Mr. Long considers the proposed changes to be a very serious matter. Propes also presented letters from the Independent Insurance Agents. Propes stated the Council can influence where and whom the insurance companies insure. The major providers in eastern North Carolina are likely to withdraw if the proposed changes are approved. Propes stated that the average policy cost for a \$100,000 home in Wilmington is about \$350. If the proposed changes are approved the insurance cost will rise to approximately \$950 annually. Propes stated that hurricane protection is very important to the insurance companies, and the predictions are for the number and intensity of storms to increase over the next 25 years. Propes stated the bigger issue in the General Assembly is the availability and affordability of insurance.

Alan Miles with North American Insurance, Susan Volary with Nationwide Insurance, Ben Segall with Travelers Property and Casualty Insurance, Roger Smelden with NAMIC and Bob Messer with State Farm Insurance all spoke against the proposed changes. Tom Madgar, with Nationwide Insurance Company, stated he is concerned about attempts to weaken the code. Madgar urged the Council to deny the proposal.

Glen Jernigan, a former realtor and State Senator, stated he has worked with the Red Cross and has observed the damage from storms. Jernigan stated the proposed changes would weaken the code, and urged the Council to deny the proposal.

Durall Legrone, representing Professional Engineers of North Carolina, stated he was opposed to proposed changes. He stated the model code organizations have adopted ASCE-7.

Chairman Gardner closed the public portion of the hearing and asked the Council for comments.

John Hitch stated he is disappointed with both sides of the issue, stating the information is anecdotal. Hitch stated he wanted the insurance industry to provide more information about losses. Hitch stated he wants to table the proposal and study the proposal more. Al Bass stated he is also disappointed in the insurance industry and would like more information before making a decision.

Marshall Knight stated the committee looked at data, and the issue does not need further study. Knight summarized the proposed changes as compared with the current code.

Hebert Neily stated he felt the issue needed further study.

Robert Pierce called the question to end discussion and have the Council vote. Council voted to call the question, and the call passed. The Council then voted on the original motion made by Dan Tingen to approve Item 4. The Council was polled, and the motion failed by a vote of 10 to 6.

Chairman Gardner left the meeting, and Vice-Chair Jack Neel presided over the remainder of the meeting.

ITEM 5. REQUEST BY MET LABORATORIES, AN APPROVED THIRD PARTY AGENCY, FOR PERMISSION TO LABEL EIGHT ADDITIONAL CATEGORIES (18, 22, 23, 30, 37, 38, 39, AND 50).

Greg Mulholland stated Item 5 is a request by MET Laboratories for approval in additional categories. Mulholland made a motion to approve MET Laboratories pending receipt of additional information. Dennis Norris seconded the motion. The motion carried.

ITEM 6. REQUEST BY TUV RHEINLAND OF NORTH AMERICA FOR APPROVAL AS A THIRD PARTY AGENCY

Greg Mulholland stated that he, and Grover Sawyer and Jim Carpenter of the Department of Insurance, visited TUV Rheinland of North America. Mulholland made a motion to approve TUV for the categories listed in the request letter. Bullock seconded the motion. The motion carried.

OTHER ITEMS

ITEM 7. REQUEST BY PHILLIP J. HINTON, L.A.,P.E. OF THE NC DEPARTMENT OF TRANSPORTATION TO APPEAL THE DEPARTMENT OF INSURANCE INTERPRETATION THAT VOLUME I-C REQUIRES AN ELEVATOR IN A PUBLICALLY OWNED TWO STORY WAREHOUSE

Phillip Hinton, with the Department of Transportation General Services, appealed the ruling by Grover Sawyer, Deputy Commissioner, Engineering Division, NC Department of Insurance, that an elevator is required in a maintenance facility located in Brunswick County. Hinton stated the site is fenced, is a secure area and is not open to the public. The structure is two stories. The bottom level is used for boat storage and as a dress area for divers. The upper floor is a blacksmith shop, locker area and electrical shop. The front side of the building is at grade and is accessible at grade. The lower area is also at grade and is accessible. The North Carolina Department of Insurance ruled that the building requires an elevator. Hinton stated they are not denying access to persons with a disability. Hinton stated the elevator would not be required if this was not a public building.

Laurel Wright, a Code Consultant with the NC Department of Insurance, stated that an elevator is required for public buildings two stories or more in height and can only be deleted in certain cases; however, this building does not meet the criteria for exemption. Wright also stated that if the Department of Transportation deletes the elevator, the Department of Justice could still require an elevator under ADA requirements. Wright stated that the Department of Insurance contacted the Department of Justice. The Department of Justice consultant stated an elevator is required.

Tom Turner made a motion that the Council approve the variance for the elevator with the understanding that the Department of Transportation accepts responsibility to the Department of Justice for ADA. John Hitch seconded the motion. Jack Neel suggested the Council get an opinion from attorney Doug Hanna. Hanna stated the Council must first determine if the interpretation by the Department of Insurance was correct. Secondly, the Council may change the Code to allow the Department of Transportation to delete the elevator. Turner withdrew the motion.

Robert Pierce made a motion that the Council concur with the staff's interpretation. Dan Tingen seconded the motion. The motion carried.

Robert Pierce made a motion to allow the Department of Transportation a variance for this building. Tom Turner seconded the motion. Grover Sawyer with NC Department of Insurance, stated that both the Department of Insurance and the Department of Transportation had talked with the Department of Justice, and the Department of Justice stated an elevator is required. Tom Turner asked how much the elevator would cost. Phillip Hinton replied the cost of the elevator is around \$60,000. Turner moved to amend the motion to grant a variance if no lift of any kind is provided in the building. Doug Hanna stated the amended motion would prohibit DOT from later deciding to put in a freight elevator. William Bullock stated he does not feel comfortable with granting a variance. Bullock stated the facility is a complete building with rest rooms on both floors. Bullock stated he doesn't want the Council to try and circumvent the law. Greg Mulholland agreed with Bullock's statement. The Council was polled and the motion failed with a vote of 11 to 4.

ITEM 8. COMMITTEE REPORTS

Chairman Gardner announced the formation of an Energy committee for the Building Code Council. Greg Mulholland will serve as Chairman of the Committee. Members of the committee are Dennis Norris, Tom Turner, Al Bass and William Bullock.

The Chairmen of the International Committees gave the following meeting dates.

International Fire Code Committee - Richard Strickland, Chairman, January 19 @
Winston-Salem, February 8, 2000 at NCDOI

International Building Code Committee - Aubrey Smith, Chairman, January 5, 2000 at NCDOI, February 1, 2000 at Greensboro and March 1, 2000 at NCDOI

International Mechanical Code Committee - Al Bass, Chairman, Committee work complete.

International Fuel Gas Code Committee - Robert Pierce, Chairman, Committee work complete

International Plumbing Code Committee - Al Bass, Chairman, January 6, 2000 at NCDOI,
January 27, 2000 at NCDOI and February 17, 2000 at NCDOI

International Residential Code Committee - Dan Tingen, Chairman, February 2 and 3, 2000
at NCDOI and February 23 and 24, 2000 at NCDOI

ITEM 9. REQUEST BY STAFF FOR COUNCIL INPUT ON 2002 ACCESSIBILITY CODE, INCLUDING INPUT ON THE AD HOC COMMITTEE ACTION

Grover Sawyer, Deputy Commissioner, Engineering Division of the Department of Insurance, asked the Council if the International Building Committee should be reviewing Chapter 11 Accessibility in the International Building Code, or does the Council wish to continue using the current Volume I-C.

Paul Wilms of the North Carolina Home Builders Association stated that at the June 1999 meeting of the Council, when I-C was adopted by the Council, it represented an agreement with all the groups affected.

Duralle Legrone, representing Professional Engineers of North Carolina, stated the current I-C reflects what is in the Fair Housing and the ANSI standard. Legrone stated it would be easy to adopt ANSI and change the 2% accessible units in multi-family developments to 5%.

Tom Turner requested that the Council recommend that the International Building Committee accept the Accessibility part of the International Building Code with changes North Carolina wants to add. Richard Strickland agreed with Turner's comments. Aubrey Smith stated we should wait until 2005, as a lot of work went into creating and approving the current I-C. Vaughn Wicker, with SBCCI, stated that if we wait until 2005 we would be working with an ANSI Standard that is 6 years old.

Aubrey Smith made a motion to begin working on the ANSI Standard with North Carolina modifications for adoption in 2005. The motion failed, as there was no second to the motion. Aubrey Smith made a motion that we attempt to adopt the ANSI Standard with NC Amendments in 2002, and the Chairman will appoint an Ad Hoc Committee to begin the work. Tom Turner seconded the motion. The motion carried.

ITEM 10 REQUEST BY STAFF TO DISCUSS ACCESS CONTROLLED EGRESS DOORS

Grover Sawyer, Deputy Commissioner, Engineering Division, NC Department of Insurance stated the International Code allows access controlled egress doors in Educational occupancies. The current code does not allow access controlled egress doors. Sawyer stated he currently has a request to allow the use of access controlled egress doors in Assembly and Educational occupancies. Sawyer requests the Council to direct him to send out a statewide memo to allow the use of access controlled egress doors in Assembly and Educational occupancies. Al Bass makes a motion to have Sawyer send out a memo. Dan Tingen seconds the motion. Reed Jarvis, with the Fire Marshal s Association, stated it was not on the agenda for the committee meetings and the committees have not had a chance to review the request. Tom Turner offers a substitute motion, to deny Sawyer s request. Attorney Doug Hanna points out the Council can send the request to committee. John Hitch asks to amend the motion to send it back to committee. Tom Turner and Al Bass withdraw their motions. Vice-Chair Jack Neel directs that the item be reviewed by the International Building committee.

Building Code Council Committee Meetings

The Energy Committee will meet February 16, 2000 at 9:30 am at the Department of Insurance.

There being no further business, the meeting was adjourned.

Sincerely,

Wanda D. Edwards, P. E.
Secretary