

# Construction Code Communicator



State of New Jersey  
James E. McGreevey, Governor

Department of Community Affairs  
Susan Bass Levin, Commissioner

Volume 14 Number 1

Spring/Summer 2002

## Happy Anniversary, Uniform Construction Code by Commissioner Susan Bass Levin

When New Jersey adopted a statewide building code 25 years ago, it represented an important step forward in protecting public safety and enhancing economic development. It also represented a unique partnership between State and local government.

New Jersey's Uniform Construction Code may have been established by the State, but its enforcement, and its ultimate success, rested with local code officials.

We now know it couldn't have been in better hands.

New Jersey today is recognized as having among the best construction code officials in the nation. Thanks to the training and professionalism of these men and women, New Jersey's system of code enforcement is regarded as a national model.










This was confirmed several years ago when the insurance industry undertook a nationwide evaluation of local building codes and code enforcement.

The Insurance Services Organization developed a rating system to compare local building departments from state to state on a scale of one to ten. Nationwide, 57 percent of local building departments in America scored five or better. In New Jersey, 100 percent of our building departments scored five or better. That's an amazing statistic and every local code official should take pride in it.

As Mayor of Cherry Hill for 14 years, I gained a firsthand appreciation for the men and women of local code enforcement by observing Township Director of Code Enforcement Anthony Saccamanno, a true professional. Tony taught me a great deal about the technical expertise of code officials and the many demands of the job.

As we wish our Uniform Construction Code a Happy 25<sup>th</sup> Anniversary, let us renew our commitment to the strong State and local partnership that made our system so successful. Let us also salute the local code officials in all our towns and cities who have dedicated themselves to protecting the health, safety, and welfare of our communities.

### In This Issue

25th Anniversary of the Adoption of the UCC . . . . .	6	New Jersey Uniform Construction Code Advisory Board Seats Held and Terms of Service . . . . .	8
Accessible Dwelling Units Revisited  . . . . .	2	PermitsNJ . . . What Will It Require? . . . . .	21
Affidavits of Consent . . . . .	3	Showing Compliance with the Energy Code for Residential Structures  . . . . .	14
Building Area -- How Is It Measured?  . . . . .	3	State of New Jersey Training Fee: A New Name . . . and a New Rate . . .	13
Building Inspectors, Footings, and Grounding Revisited  . . . . .	22	Technical Assistant College Course Fall 2002 . . . . .	23
Code Advisory Board Members -- 2002 . . . . .	7	Temporary Certificates of Occupancy . . . . .	23
Delivering the Dream . . . . .	11	The Code Advisory Board -- A Perspective . . . . .	10
Duct Tape - Duct Tape - Duct Tape   . . . . .	4	Time Frame to File Appeals . . . . .	3
Grace Periods . . . . .	5	UCC -- 25 Years of Change . . . . .	13
Happy Anniversary, Uniform Construction Code . . . . .	1	Unrated Corridor Wall Requirements   . . . . .	5
Index to the 2001 Construction Code Communicator (Volume 13) . . .	19	Utility Sheds and Other Similar Structures  . . . . .	3
Kudos to the Staff Who Wrote the Uniform Construction Code! . . .	6		
New Jersey Register Adoptions . . . . .	20		

## Accessible Dwelling Units Revisited

Once again, the rumor seems to be traveling around that the Uniform Construction Code requires a percentage of dwelling units to be fully accessible. Sometimes the rumor is two percent; sometimes it is four percent. This is not true. These percentages were eliminated in 1990 because they did not work. Let me take this opportunity to straighten out the requirements for accessible dwelling units.

### *Which dwelling units are required to be accessible?*

1. In a building with four or more dwelling units, if the building has an elevator, all (100 percent) of the dwelling units must be adaptable. [N.J.A.C. 5:23-7.5(b)]
2. In a building with four or more dwelling units, if there is no elevator, all (100 percent) of the ground-floor dwelling units must be adaptable. [N.J.A.C. 5:23-7.5(b)]
3. Ground-floor dwelling units: In a building with dwelling units, the first floor containing dwelling units must be accessible and must contain adaptable dwelling units, regardless of whether that floor is at grade. [N.J.A.C. 5:23-7.5(b)1]
4. Townhouses, which are an exemption to the rules, are exempt from the Barrier-Free Subcode. Townhouses are dwelling units with two or more stories of living space, with all or most of the sleeping areas on one story and all or most of the living areas on another story, and with an independent entrance at or near grade. [N.J.A.C. 5:23-7.3(b)1]

### *What is the difference between accessible and adaptable?*

An adaptable dwelling unit is an accessible dwelling unit with adaptable features. An adaptable dwelling unit must have (1) an accessible entrance, (2) an accessible interior route, (3) one full adaptable bath on an accessible route, (4) maneuvering space at all doors, and (5) adaptable features in the kitchen and bathroom.

### *What features in the kitchen may be adaptable?*

1. Adaptable counter: There must be a 30-inch length of counter that can be adjusted to an accessible height. The base cabinets in this section must be removable and the floor must be finished all the way to the wall. The 30-inch section itself does not have to be pre-cut; it can be "replaceable as a unit." This means that it must be able to be cut in place and either lowered or replaced.

2. Kitchen cabinets: Kitchen cabinets that are installed at the accessible height do not allow for even a toaster underneath. The kitchen cabinets may be installed at the standard height as long as they are attached in such a manner that they can be lowered without damaging the wall.

### *What features in the bathroom may be adaptable?*

1. Grab bars do not have to be installed, but the wall must be reinforced to permit their later installation.
2. The threshold in a transfer shower may be adaptable as long as the adaptation can be made easily without undertaking a construction project.
3. The mirror may be installed at a standard height as long as it is attached in such a way that it can be lowered without damaging the wall.
4. A vanity may be installed underneath the lavatory as long as it can be removed without requiring the removal or replacement of the lavatory.

### *Maneuvering Space at Doors*

There have been some projects that have been brought to the Department of Community Affairs' attention in which no maneuvering space is provided at doors. Maneuvering space is critical to the usability of the dwelling unit. The requirements are:

1. For a front approach to the pull side of a swinging door, 18 inches of clear space must be provided on the latch side. (CABO/ANSI A117.1-92, Section 4.13.6.1)
2. For a front approach to the push side of a swinging door that is equipped with both a closer and a latch, 12 inches must be provided on the latch side of the door. (CABO/ANSI A117.1-92, Section 4.13.6.2)

A wider door is not necessarily better. It is important for the wheelchair user to be able to *maneuver* the wheelchair. The maneuvering space is required in both dwelling units and commercial buildings. This is one of those items that should be checked in plan review and checked again at the framing inspection. It is nearly impossible to fix once the building is built.

If you have any questions on accessibility, please contact the Code Assistance Unit at (609) 984-7609.

Source: Emily W. Templeton  
Code Development

### Affidavits of Consent

Construction and subcode officials should be aware of the requirements of *N.J.A.C. 5:23-2.15*, Construction Permits – Application, regarding deviations from released plans.

*N.J.A.C. 5:23-2.15(e)3.v* requires a new affidavit of consent if there has been a substantial deviation from the original construction application. Consequently, questions have arisen regarding who should submit the affidavit and what constitutes a “substantial” deviation.

The individual in charge of the construction work should submit the affidavit of consent. Depending upon how the certification section in the construction permit application was completed, the responsible party would be either the owner, or his or her agent.

“Substantial” deviations usually involve situations where there have been structural changes on the project. Concerning electrical and plumbing changes, substantial deviations may often be addressed through a permit update, rather than a new affidavit of consent.

If you have any questions regarding these matters, do not hesitate to contact the Office of Regulatory Affairs at (609) 984-7672.

Source: Robert Hilzer  
Office of Regulatory Affairs

### Time Frame to File Appeals

In 1996, the regulations governing construction boards of appeal were amended. As a result, the time frames for Uniform Construction Code (UCC) appeals were made consistent with the statutory requirement for Uniform Fire Code appeals. However, there has been confusion regarding the allotted time frame for applicants to file their requests.

Pursuant to *N.J.S.A. 52:27D-206* of the Fire Safety Act, the application for hearing with the board shall be filed “by the 15<sup>th</sup> day after receipt by the person of the ruling, action order, or notice complained of.”

UCC officials and board members are reminded that the time frame to file an appeal for a violation notice is 15 calendar days, *not* 15 business days. This is reaffirmed in the standard notice of violation form that allows the applicant to file his appeal.

The construction board of appeal must strictly enforce the 15-calendar-day time frame. If a board does not follow this time frame, the enforcing agency can

successfully appeal the board’s decision to the Superior Court. UCC officials who believe any request to be untimely should move for the dismissal of the appeal by the board. The enforcing agency, either on its own or through its attorney, can move for dismissal prior to the hearing.

If you have any questions regarding the content of this article, you are invited to contact me at (609) 984-7672.

Source: Robert Hilzer  
Office of Regulatory Affairs

### Building Area -- How Is It Measured?



The other day, I received a telephone call from a well-respected colleague who asked a question that, at the time, seemed very basic. I found the question quite humorous, until I realized that this issue was being misinterpreted throughout the State. The question was, “How is the area of a building measured?”

According to Section 502 of the 1996 Building Officials and Code Administrators (BOCA) National Building Code, the term “area, building” is defined as the “area included within surrounding exterior walls (exterior walls and fire walls) exclusive of vent shafts and courts.” Therefore, the area of a building is that which is measured from the inside of the exterior walls. This is further exemplified in a BOCA interpretation on this issue. According to No. 34/305/81R, the measurement of a building’s area does not incorporate the thickness of exterior walls.

I hope this eliminates any confusion on how the area of a building is measured and for determining compliance with Table 502. Should you have any questions regarding this issue, feel free to contact the Code Assistance Unit at (609) 984-7609.

Source: John N. Terry  
Code Assistance Unit

### Utility Sheds and Other Similar Structures



It’s spring! Sheds will soon be blooming, which always brings up the question, “What is a garden-type utility shed or similar structure?” Sheds come in many shapes and sizes. Utility sheds are designed to enclose materials such as garden tools, lawn mowers, pool supplies, or personal belongings. The term “similar structure” has a broader meaning. It can include a gazebo; a trellis; an independent, free-standing platform; or a deck not attached to a building.

(continued from page 3)

Some garden utility sheds or similar structures are pre-constructed; brought to the site on a truck; and set in place by a light crane on the truck, forklift, or tractor. Some consist of components with wood frames onto which the siding and the roof are added. Some are composed of metal panels with structural members screwed together at the site and mounted on a base. Others are constructed the old-fashioned way — from materials purchased from lumberyards.

There are three thresholds for permit and foundation requirements:

- The first is when a garden-type utility shed or similar structure is 100 square feet or less in area, 10 feet or less in height, and is accessory to a building of a residential use group (R-2, R-3, R-4). In this case, no permit is required by the Uniform Construction Code (UCC). The installation of the shed, including anchorage, is the owner's responsibility. The code official does not inspect the installation of a garden-type utility shed or similar structure of this size.
- The second threshold is when this type structure is greater than 100 square feet, but does not exceed 200 square feet; is 10 feet or less in height; and is accessory to buildings of a residential use group (R-2, R-3, R-4). When a structure falls within this category, a permit is required. The structure must have a minimum four-inch-deep bed of stone to provide some protection from frost heaving, or it must have another frost-protected design. The construction must be dimensionally stable. At *N.J.A.C. 5:23-9.9, Foundations Systems for Garden-Type Utility Sheds and Similar Structures*, the UCC states that a structure is considered dimensionally stable if the walls are tied together with a floor system. Finally, the shed or garden structure must be either heavy enough to stay in place in strong winds, or it must be anchored.
- The third threshold exists by exception. If a garden-type utility shed or similar structure exceeds any of the criteria established at *N.J.A.C. 5:23-9.9, Foundations Systems for Garden-Type Utility Sheds and Similar Structures*, or *N.J.A.C. 5:23-2.14(b)8, Construction Permits -- When Required*, the construction is treated as it would be for any other building. For example, if the shed is greater than 200 square feet; or if the height of the shed is greater than 10 feet; or if the shed is accessory to any use group other than R-2, R-3, or R-4, the structure may not be constructed using the special provisions in Sections 9.9 or 2.14 of the UCC. This would indicate that, if a shed were constructed on the

property of a business building (Use Group B) and if it were identical to a garden shed (100 square feet and 9 feet, 11 inches high) at someone's home, it would require the installation of a foundation system that extends to below the frost line.

The Code Assistance Unit has become aware of some informational brochures provided by several municipalities that contain inaccurate information. This article should be provided in their place. If there are questions about this issue, please contact the Code Assistance Unit at (609) 984-7609.

Source: Jeffrey Applegate  
Code Assistance Unit

### Duct Tape - Duct Tape - Duct Tape

For years, old, reliable duct tape has been used for just about everything, including its use as a sealant for ducts. However, with two new code adoptions, duct tape's acceptable code-related uses may be altered.

The Department of Community Affairs has recently adopted the Council of American Building Officials Model Energy Code (CABO MEC)/1995 for residential buildings and the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) 90.1-1999 for commercial buildings. The grace period for the new adopted energy subcodes expires on July 16, 2002, at which time they are fully enforceable. According to these standards, duct tape *is not* an approved sealant on any supply or return ducts.

CABO MEC/1995, Section 503.8.2, Duct Sealing, states, "all low-pressure supply and return ducts shall be sealed using mastic with fibrous backing tape. For fibrous ducts, pressure-sensitive tape may be used, if installed in accordance with Standard RS-45. Other sealants may be approved by the subcode official. Duct tape is not permitted as a sealant on any ducts."

ASHRAE 90.1-1999, Section 6.2.4.3, Duct Sealing, states "ductwork and plenums shall be sealed in accordance with Table 6.2.4.3A, Minimum Duct Seal Level, and Table 6.2.4.3B, Duct Seal Levels, as required to meet the requirements of Section 6.2.4.4, Duct Leakage Tests, and with standard industry practice." Please refer to these tables to determine the level of sealing required. (Please note, as stated in Table 6.2.4.3B for seal levels A and B, pressure-sensitive tape shall not be used as the primary sealant.)

There are many other products, other than duct tape, that are manufactured for this purpose. Some of these products include liquid sealants, mastic-type sealants,

gaskets, pressure-sensitive tapes, and heat-applied materials.

Please be advised that the sealing of ductwork is an Energy Subcode requirement.

Should you have any questions, you may call the Code Assistance Unit at (609) 984-7609.

Source: Thomas C. Pitcherello  
Code Assistance Unit

### Grace Periods

When new codes are adopted, there is often confusion regarding the date of enforcement. Many people ask whether new codes must be enforced immediately after their operative date, or if there is a time frame when the previously enforced code may be used. I have provided two examples below that should clarify any confusion.

*Example 1:* Tom brings a complete permit application for a project that complies with the Building Officials and Code Administrators (BOCA) National Mechanical Code/1993 to a construction office. All prior approvals are included. However, the State has recently adopted the International Mechanical Code/2000 and the International Fuel Gas Code/2000, which were adopted to replace the BOCA National Mechanical Code/1993. Should the construction office approve Tom's documents, even though they don't comply with the newly adopted codes?

The answer is "Yes." The Uniform Construction Code (UCC) contains provisions at *N.J.A.C. 5:23-1.6(b)* that allow for new projects submitted within the grace period to be reviewed. A grace period is that period of time by which previously enforced codes may be used. Therefore, Tom's construction documents may be reviewed for compliance with the BOCA National Mechanical Code/1993.

*Example 2:* Rob comes to the construction office with documents for plumbing review approval. These documents comply with the National Standard Plumbing Code (NSPC)/1996; however, the State adopted the NSPC/2000 five months ago. Can the construction office issue a permit for documents that comply with the NSPC/1996, even five months since the adoption of the NSPC/2000?

Again the answer is "Yes." *N.J.A.C. 5:23-1.6(a)* provides that the applicant may submit a completed permit application, including all prior approvals, to be reviewed under the code in force immediately preceding the subcode adoption. The grace period is in effect for the six months after the new subcode has been adopted. Therefore, Rob would be allowed to commence construction work on the plumbing portion of the project.

If you are still confused, or more confused than you were before reading this article, please feel free to call me at (609) 984-7609 and we can discuss your particular situation.

Source: Marcelino Iglesias  
Code Assistance Unit

### Unrated Corridor Wall Requirements



Lately, there has been an influx of telephone inquiries regarding Tables 1011.4 and 602 of the Building Officials and Code Administrators (BOCA) National Building Code/1996, which do not require corridor walls to be fire-resistance rated. The callers have asked, "When the required fire-resistance rating of a corridor wall is zero hours, is the wall considered a 'fire partition?' If so, must it be constructed in accordance with Section 711.0 of BOCA/1996?"

The intent of fire-resistance-rated fire partitions is to prevent the spread of fire from adjacent rooms and spaces into the corridor that is serving as an occupant's means of egress. When fire partitions are required to be fire-resistance rated, they must also meet the requirements of Section 711.0 of BOCA/1996 for opening protectives, continuity, penetrations, and joints. By requiring the fire-resistance-rated wall to comply with these provisions, the necessary separation and protection is achieved.

However, if the walls are not required to be rated, there is no need to comply with any of these sections. As long as the material used to construct the wall is consistent with the construction type of the building, the walls could, in effect, be "cyclone fencing."

If you have any questions regarding this matter, please feel free to contact the Code Assistance Unit at (609) 984-7609.

Source: John N. Terry  
Code Assistance Unit

## Kudos to the Staff Who Wrote the Uniform Construction Code!

This 25<sup>th</sup> anniversary celebration of the Uniform Construction Code (UCC) should not pass without applauding the effort of the Department of Community Affairs staff who wrote and rewrote the rules we now call “The Code.”

**CHUCK DECKER:** Chuck Decker had the singular ability to see the logical result of each piece of the UCC as it was being developed — and of the whole as those pieces were combined. More than once, Chuck advocated a rewrite because “we don’t want to be where that could take us.” The fact that the UCC is technically clear and enforceable is due in large part to Chuck Decker’s contributions.

**LISA FARRELL:** Lisa Farrell set up the first training program for code officials. Seminars were offered in every discipline all across New Jersey. Her efforts established the standard toward which the educational program continues to strive today.

**SOL METZGER:** The UCC itself and the members of the UCC team benefited from Sol Metzger’s legal savvy. Clarity and precision were twin goals that Sol set — and made sure we reached. The UCC itself is enforceable from a legal standpoint because of Sol Metzger’s contributions.

**JIM SINCLAIR:** Jim Sinclair was the UCC “idea man.” As we struggled to determine how to make this State-local partnership work, Jim had a myriad of suggestions, each one valuable and each one worth considering. We would not have the system we have now were it not for Jim’s understanding of how things work — and his innovative approach to how to make them work better.

**PAUL STAUDT:** From a purely practical standpoint, the UCC works because the field activities were well set up. Paul Staudt organized the plan review unit and the local code enforcement team. He set the standard for sensible, efficient code enforcement; his work was rock solid.

**CYNTHIA WILK:** Cindy Wilk spearheaded the licensing program. Working in concert with the training initiative, Cindy ensured the development of a series of licenses in each technical discipline that was both reasonable and effective. This part of the UCC has required little “tinkering” over the years and the framework of licenses for the UCC has been used as a basis for other licensing initiatives.

One of the hallmarks of code enforcement in New Jersey is teamwork. There is the large State-local team in which we all work together for safe buildings. There is the reliance by the Department on local officials when a large rule-making project is undertaken. Two projects spring to

mind. The Rehab Code is an award-winning document because of the work of the code officials and the other interested parties who participated in its development. The review of the International Code Council’s International Building Code and International Residential Code that was just completed is the most thorough and careful review of these codes that has been conducted by any jurisdiction in this country. This review and analysis was possible only because code officials, architects, and representatives of professional associations and trade organizations were willing to volunteer their time and expertise.

The teamwork that has informed the UCC process from the very beginning carries over to our work today. The open, comprehensive, collegial process in which the UCC was created — and through which it is changed — makes my job challenging and satisfying. The people with whom I worked in the past — and with whom I work today — make it rewarding.

Source: William M. Connolly  
Director  
Division of Codes and Standards

## 25th Anniversary of the Adoption of the UCC

There would be no Uniform Construction Code in New Jersey without Bill Connolly and Chuck Decker. Bill Connolly, Chuck Decker, and later, Cindy Wilk, did dozens of “dog-and-pony” shows in countless municipalities trying to convince the local mayors, unions, and associations of the logic of one statewide code.

For years, Chuck’s name was the noun for every expletive adjective in the English language. He was the point man on this endeavor; and you know what happens to point men!

He and our entire team did a magnificent job. I am proud to have been a member of that team.

Source: Joan Van Camp

NOTE: Joan Van Camp was Chuck Decker’s secretary from when he began with DCA, in 1974, until his untimely death in 1993.

## Code Advisory Board Members – 2002

The Uniform Construction Code Advisory Board was formed in 1976 to advise the Department of Community Affairs Commissioner on the Uniform Construction Code. There are fifteen members – nine named seats and six public members, one of whom represents disabilities, and two of whom represent consumers. The current Board members and the seats each holds are:

**ROBERT LEMON (Chair):** Mr. Robert Lemon has served on the Board since 1987. Currently in a public seat, he represented building inspectors and served as the Chair of the Building Subcode Committee from 1986 - 1995. He is the Construction Official and Building Subcode Official for Egg Harbor City and Mullica Township in Atlantic County.

**ALBERT TUREK, P.E. (Vice-Chair):** Mr. Albert Turek has served on the Board in the seat for licensed professional engineer, mechanical since 1988. Initially appointed as the Chair of the Energy Subcode Committee, he became Chair of the Mechanical/Energy Subcodes Committee when those disciplines were merged in 1993.

**LINDA AIELLO:** Ms. Linda Aiello has served on the Board since 1998. She holds a public seat and she represents the interests of technical assistants who run the local enforcing agency offices around the State.

**JUNG CHO, V.M.D., DR.P.H.:** Dr. Jung Cho has been a member of the Board since 1980. He is the County Health Officer/Public Health Coordinator for Camden County and holds the seat designated for a public health official.

**JOHN D. DEL COLLE:** Mr. John Del Colle has been a member of the Board since 1991. He is the Chair of the Barrier-Free Subcode Committee and was involved in the development of the first Barrier-Free Subcode in 1977. He holds the public seat designated for the representative of people with disabilities.

**STEPHEN E. FRAME:** Mr. Stephen Frame has been a member of the Board since 1995. He represents building inspectors and is the Chair of the Building Subcode Committee. He is the Building Subcode Official for Atlantic City.

**GEORGE HRIN:** Mr. George Hrin has served on the Board since 1999. He serves as a public member representing elevator inspectors and is the Chair of the Elevator Safety Subcode Committee.

**WILLIAM J. LYNN:** Mr. William Lynn has served on the Board since 1992. He serves as the Chair of the Fire Protection Subcode Committee and represents licensed fire prevention inspectors.

**ROBERT A. McCULLOUGH:** Mr. Robert McCullough has served on the Board since 1990. He serves as the Chair of the Electrical Subcode Committee and represents licensed electrical inspectors.

**MICHAEL J. MILLS, FAIA:** Mr. Michael Mills has served on the Board since 1988. In his initial appointment, he was a public member, but was transferred to the seat representing architects in 1992.

**GREGORY MOTEN, AIA:** Mr. Gregory Moten joined the Board in 2002 as a public member. He served on the International Code Council Advisory Committee, which was charged with reviewing the International Building Code and the International Residential Code for possible adoption in New Jersey.

**BETH A. POCHTAR, P.E.:** Ms. Beth Pochtar has been a member of the Board since 1995. She holds the seat of licensed professional engineer, structural.

**LEONARD SENDELSKY:** The only remaining charter member of the Board, Mr. Leonard Sendelsky represents the building industry.

**JAMES SINCLAIR, P.E., DPA:** Dr. James Sinclair has served on the Board since 1993. He holds a public seat that is designated for consumers.

**ALEXANDER TUCCARONE:** Mr. Alexander Tucciarone has served on the Board since 1995. He serves as the Chair of the Plumbing Subcode Committee and represents licensed plumbing inspectors.

Code Advisory Board members may be contacted through the Department at:

Division of Codes and Standards  
Department of Community Affairs  
Post Office Box 802  
Trenton, New Jersey 08625  
Telephone: (609) 984-7609  
Fax: (609) 984-7717

Those who would like to speak to a staff member to deliver a message to a member of the Board should direct their requests to Megan Sullivan or me. We can each be reached at the address and telephone numbers provided above.

Source: Emily W. Templeton  
Code Development

**NEW JERSEY UNIFORM CONSTRUCTION CODE ADVISORY BOARD**

**Seats Held and Terms of Service**

<b>Seat Held</b>	<b>Name</b>	<b>Dates of Service</b>
Chair	Joel Wiesenfeld, P.E., Ph.D.	1975 - 1995
	Robert Lemon	1995 - Present
Vice-Chair	Richard S. Magee, P.E.	1975 - 1988
	Robert Lemon	1988 - 1995
	Albert Turek, P.E.	1995 - Present
Registered Architect	Eleanore Pettersen, AIA (Charter Member)	1975 - 1979
	William Brown, AIA (transferred from Public Member seat in 1980)	1980 - 1992
	Michael Mills, FAIA (transferred from Public Member seat in 1992)	1992 - Present
Licensed Professional Engineer (Structural)	Joel Wiesenfeld, P.E., Ph.D. (Charter Member)	1975 - 1995
	Beth Pochtar, P.E., W.B.E.	1995 - Present
Licensed Professional Engineer (Mechanical)  (serves as Chair of the Mechanical/Energy Subcodes Committee)	Richard S. Magee, P.E. (Charter Member)	1975 - 1988
	Albert Turek, P.E.	1988 - Present
		1988 - 1993 (Chair of the Energy Subcode Committee)
		1993 - Present (Chair of the Mechanical/Energy Subcodes Committee)
Municipal Building Official  (serves as Chair of the Building Subcode Committee)	Wilbur Lind (Charter Member)	1975 - 1980
	Clarence Boorman	1980 - 1986
	Robert Lemon (transferred from Public Member seat in 1986; transferred to Public Member seat in 1995)	1986 - 1995
	Stephen E. Frame	1995 - Present
Member of the Building Industry	Leonard R. Sendelsky (Charter Member)	1975 - Present
Public Health Official	Walter R. Lezynski (Charter Member)	1975 - 1980
	Jung H. Cho, D.V.M.	1980 - Present

Seat Held	Name	Dates of Service
Licensed Plumbing Inspector (serves as Chair of the Plumbing Subcode Committee)	Raymond A. Hopkins (Charter Member)	1975 - 1982
	John P. Muldowney	1982 - 1987
	Donald Metcalf	1987 - 1991
	Fred Miller	1992 - 1995
	Alexander Tucciarone	1995 - Present
Licensed Fire Prevention Inspector (serves as Chair of the Fire Protection Subcode Committee)	H. Raymond Vliet (Charter Member)	1975 - 1984
	Michael R. Townley	1984 - 1992
	William J. Lynn	1992 - Present
Licensed Electrical Inspector (serves as Chair of the Electrical Subcode Committee)	Clinton Casterline (Charter Member)	1975 - 1980
	Thomas Santamaria	1980 - 1989
	Robert A. McCullough	1990 - Present
Public Member Representing Consumers (in 1980, this seat was designated as Consumer Representing the Handicapped) (serves as Chair of the Barrier-Free Subcode Committee)	Norman Kempson (Charter Member)	1975 - 1980
	Ina White	1980 - 1991
	John D. Del Colle	1991 - Present
Public Member Representing Consumers (serves as Chair of the Elevator Safety Subcode Committee, which was created in 1990)	George Feddish (Charter Member)	1975 - 1977
	Donald H. Woodward	1980 - 1985
	Gustav Caspar	1985 - 1990
	Russell Bauer	1990 - 1994
	Kenneth Faerber	1994 - 1997
	Jon Evans	1997 - 1999
	George Hrin	1999 - Present
Public Member Representing Consumers (serves as Chair of the Mechanical Subcode Committee) (the Mechanical Subcode Committee merged with the Energy Subcode Committee in 1993)	Peter Heintz (Charter Member)	1975 - 1978
	Louise Friedman	1980 - 1983
	Robert C. Hoffman, P.E.	1983 - 1993
	Jim Sinclair, D.P.A., P.E.	1993 - Present

*(continued from page 9)*

Seat Held	Name	Dates of Service
Public Member	Catherine A. Costa (Charter Member)	1975 - 1977
	Marvin Schold	1981 - 1982
	Salvatore J. Mauro	1982 - 1990
	Vera Bacwyn-Holowinsky, RA	1998 - 2001
	Gregory Moten, AIA	2001 - Present
Public Member	William Brown, AIA (transferred to Registered Architect seat in 1980)	1978 - 1980
	Joseph Helfrich	1980 - 1983
	Ezra Bixby	1983 - 1985
	Robert Lemon (transferred to Municipal Building Official seat in 1986)	1985 - 1986
	Carl Blumenthal	1990 - 1991
	Fred Hillier	1991 - 1994
	Samuel Wheeler	1994 - 1997
	Linda Aiello	1998 - Present
Public Member	Theodore L. Primas, Sr.	1978 - 1988
	Michael Mills, AIA (transferred to Registered Architect seat in 1992)	1988 - 1992
	Daniel Millen, AIA	1992 - 1995
	Robert Lemon (transferred from Municipal Building Official seat in 1995)	1995 - Present

### The Code Advisory Board — A Perspective

Looking back on the development of the Uniform Construction Code, I can see how important the Code Advisory Board was to the initial acceptance and continued success of the Uniform Construction Code as a working — and evolving — regulatory system. The Code Advisory Board, which represents the collective experience and technical insight of professionals from all segments of the construction process, has guided New Jersey construction code development from its inception to its current status as a nationally recognized regulatory program.

On January 1, 1977, New Jersey implemented an up-to-date, statewide construction code. The New Jersey

Uniform Construction Code superseded all state and municipally adopted construction ordinances and regulations. The adoption of this rule, which was grounded in national model codes, was the culmination of twenty-five years of effort by government officials, contractors, design professionals, and builders to eliminate conflicting and outmoded building regulations and to replace them with a single, uniform set of standards for construction in New Jersey.

The Uniform Construction Code Act (P.L. 1975, c. 217) was signed into law by Governor Brendan Byrne on October 7, 1975. In less than 15 months, the staff of the New Jersey Department of Community Affairs designed a new regulatory system from the ground up, selected the

national model codes that provide the technical content of the Uniform Construction Code, and saw the resulting rule proposal through the regulatory process. The code development process and its final product were ultimately accepted by all of the key organizations in building design and construction in both the public and private sectors. In addition, because of the hard work, leadership, and peer outreach of local code officials such as Wilber Lind from Hackensack, the professional associations representing the trades and inspector groups endorsed the final product. I am proud to have been part of the development team. This was a spectacularly good piece of work and is a credit to all of the staff of the Department of Community Affairs who worked on this project under the direction of Division Director William Connolly.

Interestingly, the creation of a Code Advisory Board was not in the original version of the legislation that was proposed during Governor Cahill's administration. The Code Advisory Board was added in the bill that was considered in the Byrne administration. Not a regulatory board, the Code Advisory Board is a friendly technical and policy consultant to the Department of Community Affairs, which is responsible for the implementation and administration of the Uniform Construction Code Act. This citizen advisory board and its technical subcode committees were formed to advise and recommend procedures for administration of the Uniform Construction Code and to assist in the selection of subcodes. The Code Advisory Board is comprised of 15 members who represent: the building industry; architects; engineers (structural and mechanical); consumers; public health officials; people with disabilities; building, electrical, elevator, fire prevention, and plumbing inspectors; and the people of New Jersey.

As the Uniform Construction Code was developed, the regulatory design team worked in an area of great administrative, technical, and political uncertainty. Each political and technical constituency had its own agenda and raised issues that required resolution. Constructing a workable management system was a highly charged process whose outcome impacted every municipality, inspector, and builder in this "home rule" state. The Uniform Construction Code, in its final form, required a redefinition and restructuring of roles and responsibilities at many levels. From the beginning, the code development staff looked to the Code Advisory Board as a forum for discussing — and diffusing — the demands of the special interest groups that had not fully understood the intent of the legislation.

Prior to the first meeting of the Code Advisory Board in February 1976, the staff prepared procedural rules for the operation of the Board. The rules were drafted to provide a place for the Board as a vital cog in the code development and implementation process. These rules have held up for

over 25 years. The Code Advisory Board, chaired by Dr. Joel Wiesenfeld, and its individual members, including Leonard Sendelsky who has represented builders on the Code Advisory Board since its first meeting, quickly became the mediating mechanism for solving complex turf issues and for drawing bright lines between conflicting subcode requirements. The Code Advisory Board itself — and any one of the groups represented on the Board — could have fatally disrupted the implementation of this project. In the end, everyone had to be on "the same page" for the Uniform Construction Code to be adopted. To their credit, and to the benefit of the citizens of the State, Board members were able to look at the big picture and worked together to resolve the most difficult issues.

The Code Advisory Board has established itself as the primary defender of the Uniform Construction Code process and has been a vital support mechanism for the Department's oversight and management of the Code. The Board conducts its deliberations in a highly professional manner. The Code Advisory Board recommends changes only after a thorough technical review by an active subcode committee process and vigorous Board discussion. Many times documents are returned to Department staff for rework and then, in an iterative process, are returned to the subcode committees for additional review. This process has built the most professional code enforcement system in the nation and it continues to provide the public with the most effective life-safety protection in building construction.

Source: James Sinclair, PE, DPA  
Member Representing Consumers  
Code Advisory Board

### **Delivering the Dream**

Today, after 25 years, New Jersey's Uniform Construction Code (UCC) is generally taken for granted. There is broad-based support for its framework of private sector initiative that is supervised by municipally employed, State-licensed professionals who rely upon a statewide code. It has resulted in a public/private partnership that is committed to producing safe, healthful, accessible housing that middle-income families can afford.

Given the common sense principles that are the foundation of the UCC, its success might not seem surprising, but it was by no means inevitable. The success of the UCC is testimony to the foresight, flexibility, and good faith of several individuals who shared the common goal of providing all of New Jersey's citizens with an adequate supply of affordable places to live and work.

Without meaning to slight the many individuals who have made the UCC a success, there are a few who deserve

*(continued from page 11)*

special attention. First and foremost were Assemblyman Ozzie Pelecchia, the prime sponsor of the legislation, and Senator Martin Greuber, who moved the legislation through the Senate; they gave a political voice to a practical policy.

No matter how well written, however, a law is only as effective as its implementation. Among all of those who transformed the UCC Act into an effective program, none contributed as much as Bill Connolly of the Department of Community Affairs (DCA). Among the private sector's most influential representatives is Andy Cattano, who grew up with the UCC.

For 25 years, I have had the honor of serving on the Code Advisory Board, which is responsible for maintaining the balance of affordable protection. In that time, I have served with many distinguished housing advocates. The most notable was Dr. Joel Wiesenfeld, the Board's long-time chairman whose professionalism and patience knew no bounds.

As I look back over the past three decades – from the days when the UCC was merely a legislative draft to today's compendium of technical standards – I can identify a few key themes that have shaped our thinking and, I think, transformed the UCC into today's working success. Just a few words on each.

The UCC starts from the premise that, because the places where we live and work – the buildings that are the focus of the codes – serve multiple functions, the codes that regulate them must address multiple objectives. Accordingly, the UCC is informed by the principle that we cannot let any single "perfect" serve as the enemy of the general "good." Instead, we must balance as many "goods" as is reasonably possible.

The UCC recognizes, for example, that while we might be able to concoct a code for a perfectly "safe" building, the resulting structure would be so unappealing, so uncomfortable, and so unaffordable that few would be able to occupy it. Consequently, while the "perfect" code's safety potential might be considerable, its actual benefits would be few.

Instead of reaching for the "perfect," the UCC approach has been attentive to balancing benefits and costs in ways that would keep housing affordable to middle and modest income households. We have devised standards that give New Jerseyans the nation's safest housing, without unduly inflating the costs of their shelter.

Key to the informed balancing of the UCC's multiple objectives has been the tradition of the consensus-oriented deliberations that have characterized the code development

process from the outset. It is a tradition that is richly evident in the vigorous debates of the Code Advisory Board, where representatives from all perspectives – regulators, consumers, builders, and advocates for those with special needs – resolve differences out of a commitment to the common goal of housing New Jersey's workers and their families in structures that are safe, healthful, and affordable.

Finding solutions that balance the Uniform Construction Code Act's multiple objectives sometimes requires a rethinking of its basic approach. With the oldest housing stock in the nation, New Jersey faced a dilemma in which the cost of meeting contemporary health and safety standards tended to discourage making improvements to older buildings. Clearly, when code compliance costs make renovations economically untenable (thereby forcing the continued use of outmoded structures), the net effect is a reduction in public health and safety. In the code's sphere, we resolved the dilemma by developing the nation's first building rehabilitation code – a code that encourages us to replace something "bad" with an affordable "good," an outcome far superior to retaining a "bad" because the "perfect" is unaffordable.

The UCC takes advantage of the comparative strengths of different sectors and institutions to optimize the balance between protection and affordability. It is clear that health and safety concerns vary more by building type than by where buildings are located. Accordingly, we achieve considerable economies through a uniform statewide code governing the types and uses of buildings. Enforcement, on the other hand, must be done where the building is located. Given enforcement's local nature, the UCC assigns those responsibilities to licensed code enforcement professionals who are employed by municipalities.

Under the lens of public oversight, the private sector has considerable flexibility to build housing and workplaces that meet the widely varied needs of different segments of the State's diverse population. While other State and local regulations severely impede where and how we address the State's housing crisis, the UCC is a model of cooperative flexibility in search of solutions.

Over the past 25 years, the UCC has been about one thing: providing people with safe, healthful, affordable places to live and work. The premise of the UCC is that housing is more than just one of life's basic necessities, it is essential to our dignity as human beings. The Uniform Construction Code Act and those who have made it a success proceed from a simple principle: without housing, an individual's survival is in jeopardy, and without decent housing, an individual's dignity is diminished.

It has been an honor and a pleasure to have participated in this undertaking to give our fellow citizens adequate places to work and affordable places to live. In other words, to give them the American Dream.

Source: Leonard Sendelsky  
Charter Member, UCC Advisory Board  
Member of the Building Industry

### UCC -- 25 Years of Change

What a glorious 25 years it has been since the enactment of the Uniform Construction Code. At the same time the UCC was put into place, the State also passed legislation expanding the provisions for accessibility. This new legislation was extremely important since it defined public buildings as those used by the general public and not just those facilities built with federal, state, or local funds. This resulted in a better statewide code and, more importantly, created provisions for accessibility that have made New Jersey a leader in providing independence for an untold number of people with disabilities.

I remember quite vividly the many obstacles facing me some thirty years ago when I first reentered the world in a wheelchair. I realized that life would be much more difficult using a wheelchair, but I was amazed by the number of places I could not even enter. In those days, it was routine to be denied access due to stairs, the lack of an elevator, or even something as small as a curb. This was before the state building code laws and well before the Americans with Disabilities Act. One's rights were limited, and, to be honest, even new buildings were obstacles. It is amazing how far we have all come from those difficult days. The choices of going to a store or even a restaurant were extremely limited. I could almost bet I would not be able to get into a building. Even if I did get into the building, the chance of using the restroom was almost nonexistent. These were very difficult days to be a wheelchair user and the frustration level was extremely high. But like everyone else who is different, you learn to adapt to the existing environment, as tough as it sometimes could be. What a glorious difference 25 years makes!

I am very proud to have played a small part in the changes that have occurred over the years. I remember my first barrier free meeting in 1976. At that time, the Department of the Treasury was responsible for the Code, and, to be honest, no one was really sure what direction we should be taking to implement the law. It took a lot of dedication and arguments to move forward, but we did, and the Code has been amended numerous times since then to reflect changes and needs. This is what makes the Code so effective; it is not a static document, but one that is

constantly monitored and improved. To do so takes an enormous amount of work by a lot of people. I know that at times change comes slowly. It is also true that patience, a trait I have learned to develop from the early days, and hard work produce results.

The impact of the Code has been felt throughout the State. Although I still have to check out a building, it is now very rare for me to find one that is totally inaccessible. Malls, transportation facilities, and office buildings are all accessible. This has meant freedom of choice, integration, and opportunity for all of our citizens. When you see young boys and girls attending grammar schools, young adults in high school and college, and men and women seeking employment, regardless of disability, you know we have made a difference in their lives.

At this point in time, in my opinion (but since I am the Chairman of the Barrier Free Subcode, you could argue that I am somewhat biased), New Jersey has the best access provisions in the country. This has happened not by accident, but by a conscientious effort on behalf of the State and the disability community to work together. This ongoing commitment to change allows us to continuously review and update the Code to keep us up to date on new technology as well as responsive to the needs of people. We have definitely come a long way, but we still need to go further. It is imperative to keep the Code updated to reflect the needs of all our citizens and, in doing so, provide a safe and secure environment. I look forward to the next 25 years of change and am committed to do all I can to see New Jersey continue the leadership role it has achieved.

Source: John Del Colle  
UCC Advisory Board  
Public Member Representing the Handicapped

### State of New Jersey Training Fee: A New Name . . . and a New Rate

Effective August 5, 2002, the State of New Jersey training fee will have a new name *and* a new rate. Rule amendments proposed in the May 6<sup>th</sup> issue of the *New Jersey Register* change what has always been referred to as the "training fee" from "State of New Jersey Training Fee" to "New Jersey State Permit Fee."

In addition, the fee's rates have changed *from* \$0.0016 *to* \$0.0019 per cubic foot volume of new buildings and additions, and *from* \$0.80 *to* \$0.96 per \$1,000 of value of construction for all other construction.

The Department of Community Affairs anticipates adoption of these amendments on August 5 of this year. The new rates will require changes to: 1) your Uniform

## Showing Compliance with the Energy Code for Residential Structures

A proposal will soon appear in the *New Jersey Register* that will make it necessary to show compliance with the Energy Code as part of the permit application process. There will be three ways to show residential structures comply with the 1995 Council of American Building Officials (CABO) Model Energy Code (MEC).

The first way to show compliance would be with calculations. This has been the traditional way that compliance with energy codes has been shown. Unless the building is very unusual, this is probably the least attractive method and we don't expect many people to use it. It involves calculating the "U" value (thermal conductance) of the various building components (such as walls, floors, and roofs) and showing that the values are less than the code-specified maximum value for the components. Tradeoffs, between components that exceed the code and those that are less than the code requires, are allowed provided that the overall building is as efficient as it would have been if each component met code. Guidance on how to perform the calculations can be found in the Appendix of the 1993 version of the Building Officials and Code Administrators National Energy Conservation Code.

The second way to comply is through the use of prescriptive packages. On the following pages are six tables that correspond to the three degree-day heating zones in the State. Each table lists several different combinations of wall insulation, floor insulation, and percentage and efficiency of glazing. Applicants are permitted to use any one of these "packages" to show compliance with the code.

*(continued from page 13)*

Construction Code Administrative Records System (UCCARS) or UCCARS-equivalent software setup and 2) the posted fee schedules in municipal construction code enforcement offices.

With regard to changing your computer software setup, a letter of instruction to construction officials is being written and will be mailed sometime early in July. The letter will provide detailed, step-by-step instructions to UCCARS users to ensure the proper recording and accounting for New Jersey State permit fees during the transition quarter. In addition to that instruction, an upgrade diskette will be provided later in July.

If your town uses a software other than UCCARS for permit tracking, the letter simply advises you to contact your software vendor to ensure that: 1) fees are calculated based upon the new rates for permits and permit updates issued on or after August 5, 2002; 2) the State Permit (formerly known as Training) Fee report for the third quarter of 2002 is produced in two parts, the first summarizing activity from July 1, 2002 through August 4, 2002, and the second summarizing activity from August 5, 2002 through September 30, 2002; and 3) the name of the fee is changed from "State Training Fee" to "State Permit Fee" on all pertinent system-generated outputs.

With regard to changing your posted fee schedule, please ensure that the new rates are properly reflected on it and on any counter forms your office provides relevant to fees. If you have questions, please contact Richard Byrne at (609) 292-7898.

Source: Team UCCARS  
Director's Office

In order to use a package, the applicant must provide insulation "R- values" equal to or greater than listed on the table, and must have percentages of glazing and window U values equal to or less than listed on the table. The applicant need only submit the package that was chosen and show details that correspond to that package on the plans.

The third way of showing compliance is with MECcheck software. The software is available from the website at [www.energycodes.gov](http://www.energycodes.gov); **it can be downloaded for free**. Be sure to download the New Jersey version of the software. The software simply requires that you input the areas of the various components, the R value of insulation, and the U value of windows to be provided. The software automatically gives tradeoffs. It allows you to use components where the insulation level exceeds code to make up for those components that do not meet code. The software must be manipulated a little if you want to take advantage of the basement insulation tradeoff that is allowed in New Jersey's Energy Subcode.

Under the Energy Subcode, applicants are allowed to trade off high-efficiency heating equipment for basement wall insulation. The software can be tricked into allowing the tradeoff. If you are using the tradeoff, do not enter an area for the basement or the high-efficiency equipment in the mechanical section. Then use the software as you normally would. When submitting the printout for the program, just indicate that the tradeoff is being used and that high-efficiency equipment will be provided.

If you have questions, please call (609) 984-7609.

Source: Michael Baier  
Office of Program Development

**Prescriptive Packages -4500 Degree-Day Region**  
Single Family Detached

Package	Maximum		Minimum					Heating/Cooling Equipment Efficiency?		
	Heating Rate (kBtu/hour)	Cooling Rate (kBtu/hour)	Cooling P. Value <sup>1</sup>	Wtl P. Value <sup>2</sup>	Floor P. Value <sup>3</sup>	Basement Total B. Value <sup>4</sup>	Slab Perimeter R-Value <sup>5</sup>			Cover/Covered Wtl P. Value <sup>6</sup>
1	12%	0.80	18	11	12	0	4	15	High Heating	ACE Equipment Values
2	10%	0.60	18	11	12	0	4	15	High Heating	
3	10%	0.60	18	11	12	0	4	15	High Heating	
4	10%	0.80	18	11	11	0	4	15	High Heating	
5	10%	0.80	18	12	16	0	4	15	High Heating	
6	10%	0.40	18	12	16	0	4	15	High Heating	
7	10%	0.40	18	11	14	0	4	15	High Heating	
8	10%	0.80	18	11	11	0	4	15	High Heating	
9	17%	0.60	18	10	10	0	4	15	High Heating	
10	17%	0.60	18	10	10	0	4	15	High Heating	
11	17%	0.80	18	10	10	0	4	15	High Heating	
12	12%	0.80	18	10	10	0	4	15	Normal	Reservoir Package Values Not Applicable
13	17%	0.40	18	10	10	0	2	15	Normal	
14	17%	0.80	18	10	10	0	4	15	Normal	
15	18%	0.40	18	10	10	0	2	15	Normal	
16	18%	0.80	18	10	10	0	2	15	Normal	
17	18%	0.40	18	10	10	0	0	15	Normal	
18	22%	0.40	18	14	10	0	0	15	Normal	
19	12%	0.70	20	10	10	0	0	7	High Heating	
20	18%	0.80	20	11	12	0	0	7	High Heating	
21	18%	0.80	20	10	10	0	0	14	High Heating	
22	22%	0.80	20	10	10	0	0	14	High Heating	
23	12%	0.80	20	10	10	0	0	14	High Cooling	
24	17%	0.80	20	14	10	0	4	14	High Cooling	
25	18%	0.40	20	14	10	0	0	14	High Cooling	
26	22%	0.40	20	14	10	0	0	14	High Cooling	
27	12%	0.70	30	10	11	0	0	7	High Heat/Cool	Reservoir Package Values Not Applicable
28	18%	0.70	30	10	10	1	0	7	High Heat/Cool	
29	18%	0.80	30	10	11	0	0	7	High Heat/Cool	
30	18%	0.80	30	11	10	0	0	14	High Heat/Cool	
31	22%	0.80	30	10	10	0	0	14	High Heat/Cool	

**Prescriptive Packages -4500 Degree-Day Region**  
Multi-Family

Package	Maximum		Minimum					Heating/Cooling Equipment Efficiency?		
	Heating Rate (kBtu/hour)	Cooling Rate (kBtu/hour)	Cooling P. Value <sup>1</sup>	Wtl P. Value <sup>2</sup>	Floor P. Value <sup>3</sup>	Basement Total B. Value <sup>4</sup>	Slab Perimeter R-Value <sup>5</sup>			Cover/Covered Wtl P. Value <sup>6</sup>
1	12%	0.25	11	11	11	0	4	0	High Heating	ACE Equipment Values
2	10%	0.25	11	11	11	0	4	0	High Heating	
3	10%	0.40	11	11	11	0	4	0	High Heating	
4	10%	0.20	11	11	11	0	4	0	High Heating	
5	10%	0.40	11	10	10	0	4	0	High Heating	
6	10%	0.20	11	11	11	0	4	0	High Heating	
7	20%	0.40	11	10	10	0	4	0	High Heating	
8	20%	0.20	11	11	11	0	4	0	High Heating	
9	10%	0.20	11	10	11	0	0	0	Normal	
10	10%	0.40	11	10	10	0	0	0	Normal	
11	20%	0.40	11	10	10	0	0	0	Normal	
12	20%	0.40	11	10	11	0	0	0	Normal	
13	20%	0.40	11	10	10	0	0	7	Normal	
14	20%	0.40	11	10	11	0	0	0	Normal	
15	20%	0.40	11	10	10	0	0	7	Normal	
16	10%	0.40	11	10	11	0	0	0	High Heating	Reservoir Package Values Not Applicable
17	20%	0.20	11	10	11	0	0	0	High Heating	
18	20%	0.40	11	10	11	0	0	0	High Heating	
19	20%	0.40	11	10	11	0	0	7	High Heating	
20	10%	0.70	11	10	11	0	0	0	High Heating	
21	10%	0.20	11	10	11	0	0	0	High Heating	
22	20%	0.40	11	10	10	0	0	0	High Heating	
23	20%	0.40	11	10	10	0	0	0	High Heating	
24	20%	0.40	11	10	10	0	0	10	High Heating	
25	10%	0.40	11	10	10	0	0	0	High Heat/Cool	
26	20%	0.70	11	10	11	0	0	0	High Heat/Cool	
27	20%	0.70	11	10	10	0	0	0	High Heat/Cool	
28	10%	0.40	11	10	10	0	0	0	High Heat/Cool	
29	20%	0.40	11	10	10	0	0	0	High Heat/Cool	
30	20%	0.40	11	10	11	0	0	0	High Heat/Cool	

(continued from page 15)

**Prescriptive Packages 6000 Degree-Day Region**  
Single Family Dwelling

Package	Maximum		Minimum					Heating/Cooling Equipment Difference <sup>1</sup>	
	Shading Area Percent <sup>2</sup>	Ceiling R-Value <sup>3</sup>	Ceiling R-Value <sup>4</sup>	Wall R-Value <sup>5</sup>	Floor R-Value <sup>6</sup>	Basement Floor R-Value <sup>7</sup>	Slab Perimeter R-Value <sup>8</sup>		
1	17%	0.50	10	11	10	0	4	0	UCC Exemption Threshold
2	17%	0.50	10	11	10	0	4	0	
3	17%	0.45	10	11	10	0	4	0	
4	17%	0.40	10	11	10	0	4	0	
5	17%	0.35	10	11	10	0	4	0	
6	17%	0.30	10	11	10	0	4	0	
7	17%	0.25	10	10	10	0	4	0	
8	17%	0.20	10	10	10	0	4	0	
9	17%	0.15	10	10	10	0	4	0	
10	17%	0.10	10	10	10	0	4	0	
11	17%	0.05	10	10	10	0	4	0	
12	17%	0.00	10	10	10	0	4	0	
13	17%	0.00	10	10	10	0	4	0	
14	17%	0.00	10	10	10	0	4	0	
15	17%	0.00	10	10	10	0	4	0	
16	17%	0.00	10	10	10	0	4	0	
17	17%	0.00	10	10	10	0	4	0	
18	17%	0.00	10	10	10	0	4	0	
19	17%	0.00	10	10	10	0	4	0	
20	17%	0.00	10	10	10	0	4	0	
21	17%	0.00	10	10	10	0	4	0	
22	17%	0.00	10	10	10	0	4	0	
23	17%	0.00	10	10	10	0	4	0	
24	17%	0.00	10	10	10	0	4	0	
25	17%	0.00	10	10	10	0	4	0	
26	17%	0.00	10	10	10	0	4	0	
27	17%	0.00	10	10	10	0	4	0	
28	17%	0.00	10	10	10	0	4	0	
29	17%	0.00	10	10	10	0	4	0	
30	17%	0.00	10	10	10	0	4	0	
31	17%	0.00	10	10	10	0	4	0	
32	17%	0.00	10	10	10	0	4	0	
33	17%	0.00	10	10	10	0	4	0	
34	17%	0.00	10	10	10	0	4	0	
35	17%	0.00	10	10	10	0	4	0	
36	17%	0.00	10	10	10	0	4	0	
37	17%	0.00	10	10	10	0	4	0	
38	17%	0.00	10	10	10	0	4	0	
39	17%	0.00	10	10	10	0	4	0	
40	17%	0.00	10	10	10	0	4	0	
41	17%	0.00	10	10	10	0	4	0	
42	17%	0.00	10	10	10	0	4	0	
43	17%	0.00	10	10	10	0	4	0	
44	17%	0.00	10	10	10	0	4	0	
45	17%	0.00	10	10	10	0	4	0	
46	17%	0.00	10	10	10	0	4	0	
47	17%	0.00	10	10	10	0	4	0	
48	17%	0.00	10	10	10	0	4	0	
49	17%	0.00	10	10	10	0	4	0	
50	17%	0.00	10	10	10	0	4	0	
51	17%	0.00	10	10	10	0	4	0	
52	17%	0.00	10	10	10	0	4	0	
53	17%	0.00	10	10	10	0	4	0	
54	17%	0.00	10	10	10	0	4	0	
55	17%	0.00	10	10	10	0	4	0	
56	17%	0.00	10	10	10	0	4	0	
57	17%	0.00	10	10	10	0	4	0	
58	17%	0.00	10	10	10	0	4	0	
59	17%	0.00	10	10	10	0	4	0	
60	17%	0.00	10	10	10	0	4	0	
61	17%	0.00	10	10	10	0	4	0	
62	17%	0.00	10	10	10	0	4	0	
63	17%	0.00	10	10	10	0	4	0	
64	17%	0.00	10	10	10	0	4	0	
65	17%	0.00	10	10	10	0	4	0	
66	17%	0.00	10	10	10	0	4	0	
67	17%	0.00	10	10	10	0	4	0	
68	17%	0.00	10	10	10	0	4	0	
69	17%	0.00	10	10	10	0	4	0	
70	17%	0.00	10	10	10	0	4	0	
71	17%	0.00	10	10	10	0	4	0	
72	17%	0.00	10	10	10	0	4	0	
73	17%	0.00	10	10	10	0	4	0	
74	17%	0.00	10	10	10	0	4	0	
75	17%	0.00	10	10	10	0	4	0	
76	17%	0.00	10	10	10	0	4	0	
77	17%	0.00	10	10	10	0	4	0	
78	17%	0.00	10	10	10	0	4	0	
79	17%	0.00	10	10	10	0	4	0	
80	17%	0.00	10	10	10	0	4	0	
81	17%	0.00	10	10	10	0	4	0	
82	17%	0.00	10	10	10	0	4	0	
83	17%	0.00	10	10	10	0	4	0	
84	17%	0.00	10	10	10	0	4	0	
85	17%	0.00	10	10	10	0	4	0	
86	17%	0.00	10	10	10	0	4	0	
87	17%	0.00	10	10	10	0	4	0	
88	17%	0.00	10	10	10	0	4	0	
89	17%	0.00	10	10	10	0	4	0	
90	17%	0.00	10	10	10	0	4	0	
91	17%	0.00	10	10	10	0	4	0	
92	17%	0.00	10	10	10	0	4	0	
93	17%	0.00	10	10	10	0	4	0	
94	17%	0.00	10	10	10	0	4	0	
95	17%	0.00	10	10	10	0	4	0	
96	17%	0.00	10	10	10	0	4	0	
97	17%	0.00	10	10	10	0	4	0	
98	17%	0.00	10	10	10	0	4	0	
99	17%	0.00	10	10	10	0	4	0	
100	17%	0.00	10	10	10	0	4	0	

<sup>1</sup> Exemption: that the package cannot be used with that foundation type.

**Prescriptive Packages 5000 Degree-Day Region**  
Multiple Family

Package	Maximum		Minimum					Heating/Cooling Equipment Difference <sup>1</sup>	
	Shading Area Percent <sup>2</sup>	Basement R-Value <sup>3</sup>	Ceiling R-Value <sup>4</sup>	Wall R-Value <sup>5</sup>	Floor R-Value <sup>6</sup>	Basement Floor R-Value <sup>7</sup>	Slab Perimeter R-Value <sup>8</sup>		
1	12%	0.00	10	11	10	0	4	0	UCC Exemption Threshold
2	12%	0.05	10	11	10	0	4	0	
3	12%	0.10	10	11	10	0	4	0	
4	12%	0.15	10	11	10	0	4	0	
5	12%	0.20	10	11	10	0	4	0	
6	12%	0.25	10	11	10	0	4	0	
7	12%	0.30	10	11	10	0	4	0	
8	12%	0.35	10	11	10	0	4	0	
9	12%	0.40	10	11	10	0	4	0	
10	12%	0.45	10	11	10	0	4	0	
11	12%	0.50	10	11	10	0	4	0	
12	12%	0.55	10	11	10	0	4	0	
13	12%	0.60	10	11	10	0	4	0	
14	12%	0.65	10	11	10	0	4	0	
15	12%	0.70	10	11	10	0	4	0	
16	12%	0.75	10	11	10	0	4	0	
17	12%	0.80	10	11	10	0	4	0	
18	12%	0.85	10	11	10	0	4	0	
19	12%	0.90	10	11	10	0	4	0	
20	12%	0.95	10	11	10	0	4	0	
21	12%	1.00	10	11	10	0	4	0	
22	12%	0.00	10	11	10	0	4	0	
23	12%	0.05	10	11	10	0	4	0	
24	12%	0.10	10	11	10	0	4	0	
25	12%	0.15	10	11	10	0	4	0	
26	12%	0.20	10	11	10	0	4	0	
27	12%	0.25	10	11	10	0	4	0	
28	12%	0.30	10	11	10	0	4	0	
29	12%	0.35	10	11	10	0	4	0	
30	12%	0.40	10	11	10	0	4	0	
31	12%	0.45	10	11	10	0	4	0	
32	12%	0.50	10	11	10	0	4	0	
33	12%	0.55	10	11	10	0	4	0	
34	12%	0.60	10	11	10	0	4	0	
35	12%	0.65	10	11	10	0	4	0	
36	12%	0.70	10	11	10	0	4	0	
37	12%	0.75	10	11	10	0	4	0	
38	12%	0.80	10	11	10	0	4	0	
39	12%	0.85	10	11	10	0	4	0	
40	12%	0.90	10	11	10	0	4	0	
41	12%	0.95	10	11	10	0	4	0	
42	12%	1.00	10	11	10	0	4	0	
43	12%	0.00	10	11	10	0	4	0	
44	12%	0.05	10	11	10	0	4	0	
45	12%	0.10	10	11	10	0	4	0	
46	12%	0.15	10	11	10	0	4	0	
47	12%	0.20	10	11	10	0	4	0	
48	12%	0.25	10	11	10	0	4	0	
49	12%	0.30	10	11	10	0	4	0	
50	12%	0.35	10	11	10	0	4	0	
51	12%	0.40	10	11	10	0	4	0	
52	12%	0.45	10	11	10	0	4	0	
53	12%	0.50	10	11	10	0	4	0	
54	12%	0.55	10	11	10	0	4	0	
55	12%	0.60	10	11	10	0	4	0	
56	12%	0.65	10	11	10	0	4	0	
57	12%	0.70	10	11	10	0	4	0	
58	12%	0.75	10	11	10	0	4	0	
59	12%	0.80	10	11	10	0	4	0	
60	12%	0.85	10	11	10	0	4	0	
61	12%	0.90	10	11	10	0	4	0	
62	12%	0.95	10	11	10	0	4	0	
63	12%	1.00	10	11	10	0	4	0	
64	12%	0.00	10	11	10	0	4	0	
65	12%	0.05	10	11	10	0	4	0	
66	12%	0.10	10	11	10	0	4	0	
67	12%	0.15	10	11	10	0	4	0	
68	12%	0.20	10	11	10	0	4	0	
69	12%	0.25	10	11	10	0	4	0	
70	12%	0.30	10	11	10	0	4	0	
71	12%	0.35	10	11	10	0	4	0	
72	12%	0.40	10	11	10	0	4	0	
73	12%	0.45	10	11	10	0	4	0	
74	12%	0.50	10	11	10				



(continued from page 17)

**FOOTNOTES:**

1. Glazing area is the ratio of the area of the glazing assemblies (including sliding glass doors, skylights, and basement windows, but excluding opaque doors) to the gross wall area, expressed as a percentage. Up to 1% of the total glazing area may be excluded from the U-value requirement. For example, 3 ft.<sup>2</sup> of decorative glass may be excluded from a building design with 300 ft.<sup>2</sup> of glazing area.
2. Glazing U-values must be tested and documented by the manufacturer in accordance with the National Fenestration Rating Council (NFRC) test procedure. Center-of-glass U-values cannot be used.
3. The ceiling R-values do not assume a raised or oversized truss construction. If the insulation achieves the full insulation thickness over the exterior walls, R-30 insulation may be substituted for R-38. Ceiling R-values represent the sum of cavity insulation plus insulating sheathing (if used). For ventilated ceilings, insulating sheathing must be placed between the conditioned space and the ventilated portion of the roof.
4. Wall R-values represent the sum of the wall cavity insulation plus insulating sheathing (if used). Do not include exterior siding, structural sheathing, and interior drywall. For example, an R-19 requirement could be met *EITHER* by R-19 cavity insulation *OR* R-13 cavity insulation plus R-6 insulating sheathing. Wall requirements apply to wood-frame or mass (concrete, masonry, log) wall constructions, but do not apply to metal-frame construction.
5. The floor requirements apply to floors over unconditioned spaces (such as unconditioned crawl spaces, basements, or garages). Floors over outside air must meet the ceiling requirements.
6. Walls of conditioned basements below uninsulated floors must be insulated from the top of the basement wall to a depth of 10 ft. below ground level or to the level of the basement floor, whichever is less. The entire opaque portion of any individual basement wall with an average depth less than 50% below grade must meet the same R-value requirement as above-grade walls. Windows and sliding glass doors of conditioned basements must be included with the other glazing. Basement doors must meet the door U-value requirement described in Note b.
7. The R-value requirements are for unheated slabs. Add an additional R-2 for heated slabs. For packages with a slab insulation requirement, the insulation must extend a total linear distance of at least 24 in. The insulation must extend 1) down from the top of the slab; 2) down from the top of the slab to the bottom of the slab and then horizontally underneath the slab; or 3) down from the top of the slab to the bottom of the slab and then horizontally away from the slab, with pavement or at least 10 in. of soil covering the horizontal insulation.
8. The crawl space wall R-value requirements are for walls of unventilated crawl spaces. The crawl space wall insulation must extend from the top of the wall (including the sill plate) to at least 12 in. below the outside finished grade. If the distance from the outside finished grade to the top of the footing is less than 12 in., the insulation must extend a total vertical plus horizontal distance of 24 in. from the outside finished grade.
9. *High Heating* means a furnace AFUE of 90% or more, or a heat pump HSPF of 7.8 or more. *High Cooling* means a SEER of 12 or more. *High Heat/Cool* means both heating and cooling equipment must meet these minimum efficiencies. If you plan to install more than one piece of heating equipment or more than one piece of cooling equipment, the equipment with the lowest efficiency must meet or exceed the efficiency required by the selected package.

**NOTES:**

- a) Glazing areas and U-values are maximum acceptable levels. Insulation R-values are minimum acceptable levels. R-value requirements are for insulation only and do not include structural components.
- b) Opaque doors in the building envelope must have a U-value no greater than 0.35. Door U-values must be tested and documented by the manufacturer in accordance with the NFRC test procedure. If a door contains glass and an aggregate U-value rating for that door is not available, include the glass area of the door with your windows and use the opaque door U-value to determine compliance of the door. One door may be excluded from this requirement (i.e., may have a U-value greater than 0.35).
- c) If a ceiling, wall, floor, basement wall, slab edge, or crawl space wall component includes two or more areas with different insulation levels, the component complies if the area-weighted average R-value is greater than or equal to the R-value requirement for that component. Glazing or door components comply if the area-weighted average U-value of all windows or doors is less than or equal to the U-value requirement (0.35 for doors).

**Index to the 2001 Construction Code Communicator (Volume 13)**

<b><u>Article</u></b>	<b><u>Issue</u></b>	<b><u>Page</u></b>
2000 Highlights	2	9
2000 International Mechanical and Fuel Gas Codes	1	4
Acceptable Practices for the Cleaning of Underground Storage Tanks	1	9
Accessibility and Sales Offices	4	2
Alert: Manufactured (HUD) Homes: Installation and Assembly	2	1
Applications for Certificates of Occupancy	2	12
Availability of 2000 IMC, IFGC, and NSPC on CD-ROMs	4	1
Bachelor Degrees Available On-Line	1	1
Basements vs. Crawlspace	1	2
Building Inspectors, Footings, and Grounding	1	11
Building Safety Conference of New Jersey 2001	2	5
Bulkheads, Piers, and the UCC	4	2
Census Item Numbers	4	4
Central Sprinkler on the Recall . . . Again!	3	5
Certified Contractors for Unregulated Heating Oil Tanks	1	2
Construction Permit Application Forms Now on the Web	2	3
Counter Documents	3	11
Down in the Basement	2	8
Elevated Fees	3	9
Group Overnight Stays	3	1
Highlights of the Adoption of the 2000 IMC and IFGC	4	6
How Do I Reach Experior?	4	3
IBC/IRC Update	4	2
Improper Truss Installations and Storage Underscore Reasons for Training	4	8
Index to the 2000 <i>Construction Code Communicator</i> (Volume 12)	1	6
Installation of Arc Fault Interrupters	4	3
International Codes Under Review	1	3
Kudos to the Technical Assistants	2	2
Latest Code Adoptions	3	4
Local Enforcing Agency Staffing Problems	4	5
National Exams	2	3
NCPCCI Exams Suspended	1	4
New Construction on Existing Foundations	4	7
<i>New Jersey Register</i> Adoptions	1	5
<i>New Jersey Register</i> Adoptions	2	4
<i>New Jersey Register</i> Adoptions	3	4
<i>New Jersey Register</i> Adoptions	4	3
New Support Option for UCCARS-TOP Users	2	8
Paperwork, Paperwork, Paperwork	1	8
Permit Requirements	4	1
Private Garages Below Living Spaces	1	1
Public Access to Plans	4	7
Raising the Bar – Review and Revision of Educational Standards	1	9
Recall of Anderson Windows	3	9
Recording Housing Demolitions	1	3

(continued from page 19)

<b><u>Article</u></b>	<b><u>Issue</u></b>	<b><u>Page</u></b>
Rehabilitation Subcode Code Change Proposal Form	3	3
Reminder: Building Safety Week 2002	4	2
Reminder: How Rehabilitation Subcode Requirements are Established Through Categories of Work	3	2
REPRINT: Ten Things Every Construction Official Should Know About New Home Warranties	3	8
Review of Load Management Device and Area Lighting Facility Installation Programs	4	5
“Rules to Live By” or “Don’t Make These Mistakes”	3	1
Technical Assistants – 4 <sup>th</sup> Graduating Class	4	10
The Natural Nuisance	4	10
Third-Party Agency Bills	1	11
Turbine Generators	3	4
UCC Standard Forms On-Line	1	11
UCCARS – The Next Generation	2	8
UCCARS – The Next Generation Performance Requirements	1	11
Uniform Construction Code Administrative Records System (UCCARS) <i>PermitsNJ</i> Update	4	9
We’re Looking for a Few Good Men or Women	2	3
What PRINTING Do You Have?	4	12
What Projects Require DCA Plan Review?	4	11
When is a Demolition Permit Required?	3	1
Workplace Hazards	3	9

### ***New Jersey Register Adoptions***

**Date:** January 7, 2002

**Adoption:** 33 *N.J.R.* 267(a)

**Summary:** *N.J.A.C.* 5:23-2.4, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, and 6.31: The adopted amendments at *N.J.A.C.* 5:23-2.4 ensure unequivocally that the provisions of any other code, standard, rule, or ordinance that is more stringent than the provisions of the Rehabilitation Subcode shall not apply.

At *N.J.A.C.* 5:23-6.4(d)6, 6.5(d)7, 6.6(d)7, and 6.7(d)6, the adopted amendments require that, other than in dwelling units of Use Group R-2, R-3, or R-4, mirrors shall not be hung in or adjacent to any means of egress. In addition, the adopted amendments require that, other than in dwelling units of Use Group R-2, R-3, or R-4, draperies or similar hangings shall not obscure an exit.

At *N.J.A.C.* 5:23-6.4(e)7, 6.5(e)8, and 6.6(e)14, the adopted amendments require the installation of fireblocking when the work being performed exposes the framing of any wall, floor, ceiling, or roof that would otherwise require fireblocking in accordance with the Building Subcode.

At *N.J.A.C.* 5:23-6.5(e)9, 6.6(e)15, and 6.7(e)11, the adopted amendments require the installation of carbon monoxide detectors in locations specified in the Mechanical Subcode.

At *N.J.A.C.* 5:23-6.8(b)5.iv, the adopted amendment provides requirements for exit signs that would make the Rehabilitation Subcode consistent with the Building Subcode.

At *N.J.A.C.* 5:23-6.9(a)10.i, the adopted amendment clarifies when newly installed elevators are exempt from the seismic requirements of Section XXIV of the American Society of Mechanical Engineers (ASME) A17.1, which is referenced in the Building Subcode.

At *N.J.A.C.* 5:23-6.9(a)23, the adopted amendment provides that newly created stairs that are not a required means of egress comply with the Building Subcode.

At *N.J.A.C.* 5:23-6.9(a)24, the adopted amendment requires that newly created passageways, aisle accessways, and aisles in buildings of Use Group M comply with the minimum width requirements of the Building Subcode.

At *N.J.A.C. 5:23-6.31(b)3.iv*, the adopted amendment addresses the change of an existing building to an open parking structure, which is currently not covered in the Rehabilitation Subcode.

At *N.J.A.C. 5:23-6.31(b)3.vii*, the adopted amendment includes Use Group I-3 in the list of special uses and occupancies that need to comply with the Building Subcode. Any change in the condition or character of the use of a building or structure of Use Group I-3 requires compliance with the referenced section of the Building Subcode.

At *N.J.A.C. 5:23-6.31(c)1.i* and *(c)2.iii*, the adopted amendment specifies that occupant load must be calculated as five square feet of occupiable floor space per occupant for any change of use to Use Group A-2.

**Date:** January 22, 2002

**Adoption:** 34 *N.J.R.* 521(a)

**Summary:** *N.J.A.C. 5:23-3.20*, 6.25A, 6.26A, and 6.31: These adopted amendments provide an exemption to the provision that requires single-station carbon monoxide alarms at guestrooms or dwelling units. Single-station carbon monoxide alarms shall not be required, given that the building is equipped with a monitored carbon monoxide alarm system. In addition, these adopted amendments clarify what constitutes "open parking areas" as defined in the Building Subcode.

**Date:** January 22, 2002

**Adoption:** 34 *N.J.R.* 523(a)

**Summary:** *N.J.A.C. 5:23-5.21*: This adopted amendment provides for a mandatory continuing education seminar on framing for all holders of a building RCS, ICS, or HHS license. This provision applies to those licenses renewed on or after January 1, 2002.

**Date:** February 4, 2002

**Adoption:** 34 *N.J.R.* 732(a)

**Summary:** *N.J.A.C. 5:23-4.19* and 4.20: These adopted amendments eliminate the training fee for construction or rehabilitation work that is done as a result of a natural disaster when the local enforcing agency has waived its fees. Fees shall be eliminated altogether when the Department of Community Affairs is the local enforcing agency.

**Date:** February 4, 2002

**Adoption:** 34 *N.J.R.* 732(b)

**Summary:** *N.J.A.C. 5:23-12.12*: This adopted amendment adds four retrofit items to the Elevator Safety Subcode. *N.J.A.C. 5:23-12.12(b)* requires that, in each building with more than one elevator, each elevator be numbered. *N.J.A.C. 5:23-12.12(c)* requires each existing elevator to be retrofitted with skirt obstruction and step level devices. Finally, *N.J.A.C. 5:23-12.12(d)* prohibits floating platforms, which allow the operation of an elevator device when the door or gate is open.

Source: Megan K. Sullivan  
Code Development Unit

---

### ***PermitsNJ* . . . What Will It Require?**

Many of you have recently asked, "What kind of computer equipment and communications service must our offices purchase in order to use *PermitsNJ*?" In turn, we have asked our application development team. Here's what they said . . .

*PermitsNJ* will be a web-based application accessed through a web browser on the desktop. Because all files and screens will be stored at the system level and processing will *not* be done on the desktop, a number of PCs of various sizes and configurations will do.

The more important aspect to consider when using a web-based application is transmission speed. The speed

at which you will transmit and receive information is influenced by three components: 1) your connection mode, 2) your Internet Service Provider (ISP), and 3) your modem.

With regard to your connection mode, the best choice is a Digital Subscriber Line (DSL), which may be ordered through your telephone company. Second to a DSL is a cable connection. This is *much* faster than an ordinary dial-up phone line, which of course would be your last choice.

In terms of selecting an ISP, Giga Information Group®, a leading global information technology advisory firm, suggests asking the following questions before committing to one of the many companies that offer this service:

(continued from page 21)

1. What is the ISP's busy-free dial rate? (This is the ratio of subscribers to the number of the ISP's server ports; the lower the ratio of subscribers to server ports, the better.)
2. Does the ISP have tiered services and is there a business class available? (Yes is the answer you'll want to hear.)
3. Does the ISP prioritize traffic for customers? (Again, Yes is the correct answer.)
4. Does the ISP have asynchronous dial bonding inverse multiplexing? (This is a device on the ISP's end that doubles the speed of the line. Again, the correct answer is Yes.)

Concerning your modem, we have found that a better modem than that provided with most new PCs may be very helpful in increasing the speed of the transmission of information. A good choice on today's market is the US Robotics 56K external modem, which retails for around \$86.

Thus, if you are considering or are in the process of purchasing the components necessary for participation in *PermitsNJ* this fall, please consider the foregoing, as well as the following guidelines:

#### PC

Current industry standard, which at present is:

- Pentium 4
- 128 MB RAM
- 20 GB hard drive
- MS Windows 98 or higher operating system.

#### Internet Browser

Microsoft's Internet Explorer 4.0 or higher. MS Internet Explorer comes packaged with MS Windows.

#### Modem

Minimum 56K. The size and quality of the modem affects the speed of the transmission. A modem of better quality than the one typically bundled with a PC would be a wise investment.

#### Monitor

17" is now standard, but larger (19", 21") or smaller (15") will work, too.

#### Telephone Line or Cable Connection

Again, a DSL is the best alternative. If DSL is not an option, however, remember that cable is about 10 to 20 times faster for transmission than a phone line with a 56K modem.

#### ISP

If a cable connection is used, the cable company becomes your ISP; otherwise, select wisely based upon the answers to those questions outlined above.

#### Printer(s)

Laser printers are now fairly standard and fairly common; you may even already have one, as many municipalities do. Any relatively new printer, however, should work. Whether a given model is adequate depends more upon your office's level of activity, i.e., how much printing you expect to do.

So, there you have it. Again, if you are in the process of purchasing computer equipment and are planning to use it with *PermitsNJ*, consider this advice.

On a related note, if your office is presently equipped with a late-model PC, it may also be adequate for use with *PermitsNJ*. We are presently testing application performance with various combinations of memory, speed, and operating systems. The results will enable us to identify minimum system requirements. We expect to report those results in the next issue of the *Construction Code Communicator*.

In the meantime, if you have further questions concerning equipment and/or communications requirements, as always, please telephone us at (609) 292-7898. We may also be reached via e-mail at: [dyedwab@dca.state.nj.us](mailto:dyedwab@dca.state.nj.us) or [bosworth@dca.state.nj.us](mailto:bosworth@dca.state.nj.us).

Source: Dana Yedwab and Berit Seiple Osworth  
Division of Codes and Standards

## **Building Inspectors, Footings, and Grounding Revisited**

The Department of Community Affairs is still receiving questions on how to create a grounding electrode system made of concrete-encased rebars in the footings of a new structure in accordance with Section 250-50 of the Electrical Subcode.

If you are still having difficulties understanding this, please dig out your old *Construction Code Communicator* articles. Volume 13, Number 1 (Spring 2001) contains the article "Building Inspectors, Footings, and Grounding." Still not helping? Then grab your Uniform Construction Code and find Bulletin No. 02-2, "Availability of Concrete-Encased Electrodes." This should clear up most of your questions.

Still got questions? See if this helps! (Keep in mind, these situations are only where a conductive rebar of one-half inch or more in diameter is used in the foundation design of the building.)

(1) *Partial Permit*: If a partial permit is issued for a foundation only or where no electrical portion of the permit has been issued, the Electrical Subcode

Technical Section needs to be filled out prior to the inspection. This technical section is to be filled out under "Technical Site Data" in the blank space at the bottom. Also, the building subcode official/inspector is to initial for the inspection under the "Job Summary" section in the space for "Other."

(2) *Placement of Conductor:* The building subcode official/inspector should recommend that the free end of the grounding electrode conductor is left inside of the foundation to prevent physical damage to the wire during backfilling. Also, the rebar chosen for clamping should preferably be placed on the outer edge of the foundation or footings to ensure that the rebar is in direct contact with the moist soil.

(3) *Additions:* *N.J.A.C. 5:23-6.32* requires additions to comply with new construction standards. However, the rebar requirement under Section 250-50(c) of the Electrical Subcode is enforceable only where a concurrent permit exists for the installation, upgrading, or relocation of any service equipment.

If you have questions on this matter, feel free to contact the Code Assistance Unit at (609) 984-7609.

Source: Rob Austin  
Code Assistance Unit

### **Technical Assistant College Course Fall 2002**

With over 300 graduates, the Technical Assistant (TA) Certification Program has been very popular throughout New Jersey. When the program began in 1997 with continuing education seminars, the curriculum consisted of nine core courses, three electives, and a ten- to fifteen-page Capstone paper.

Since then, the core courses have been rewritten and we are about to introduce a new curriculum, consisting of 45 credit hours, that will be offered at our participating community colleges throughout the State. This new course will be available to anyone who is interested in learning about working in a construction code office as a TA to the construction official.

The TA is a key player in the Code Enforcement Office. The TA works hand in hand with the construction official to ensure all of the administrative duties of the Uniform Construction Code are met. This multifaceted position is demanding and very rewarding.

Certified TAs who have completed a "train-the-trainer" program are eligible to teach the college course.

This course will be offered under the Construction Code Enforcement Program, which allows students who successfully complete it to apply for up to 50 percent tuition reimbursement. A schedule of course offerings will be available by August 1, 2002.

We are enthusiastic about the conversion of the program. It will allow more individuals to consider the TA position and enable completion of the required courses in a shorter period of time.

If you have any questions or would like to enroll, please call the Education Unit at (609) 984-7820, or visit our website at [www.state.nj.us/dca/codes](http://www.state.nj.us/dca/codes).

Source: Susan H. McLaughlin, Supervisor  
Education Unit  
Bureau of Code Services

### **Temporary Certificates of Occupancy**

The Department of Community Affairs has recently adopted amendments to *N.J.A.C. 5:23-2.23(g)* that clarify the rules governing Temporary Certificates of Occupancy (TCOs). Accordingly, a bulletin has been issued for additional clarification purposes. The regulations now provide that, if requested by the owner, TCOs must be issued when buildings are safe for occupancy.

TCOs allow building occupancy when incomplete construction work does not affect the health or safety of the occupants. For example, let's say in a single-family home (Use Group R-3 or R-4) the landscaping, sidewalks, powder room, and carpeting are incomplete, but the carpeting and the powder room fixtures are on back order. In addition, the landscaping and sidewalks cannot be completed until spring. Since none of these instances are detrimental to the occupant's health, the issuance of a TCO is appropriate.

Incomplete construction work should be finished within a reasonable time frame. In the example above, since the work on the landscaping and sidewalks cannot be started until spring, a time constraint of 120 days would be appropriate. This would allow enough time for all landscaping and sidewalk labor to be completed efficiently. If, for instance, the backordered items for the powder room do not arrive at a sufficient time within the 120-day period (because, as you know, one can never tell how long a back order may take), it would be appropriate to renew the TCO for an additional 120 days.

There are several circumstances other than health and safety issues that preclude the issuance of a TCO. First, a TCO may not be issued if the applicant has outstanding Uniform Construction Code (UCC) fees or

(continued from page 23)

penalties associated with the project, unless those fees or penalties are being appealed. Secondly, a TCO may not be issued if the project does not have a warranty or other required registrations. For example, if a home is required to have a New Home Warranty, a TCO may not be issued until the warranty is in place. Similarly, for elevator-serviced buildings, the elevator must be installed, inspected, and operational (although the registration need not have been completed) before a TCO may be issued.

The Department has provided code officials with the option to charge a fee no greater than \$30 for the extra work an office may incur by issuing a TCO. However, if the Certificate of Occupancy fee is paid in full when the first TCO is issued, the office cannot collect a TCO fee for that issuance. If a TCO is renewed, then a fee may be collected.

All code officials make judgment calls every day on the job and the decision whether or not to issue a TCO is just another one in their daily routine. Before a TCO is issued or denied, some questions need to be considered, which include:

- Will the occupants be safe in the structure?
- Can the structure be used as it is intended?
- Have all UCC fees, penalties, and judgments been paid?
- Is the building registered or warranted as required by the UCC?

To further exemplify a judgment call, let's consider a place of assembly. A place of assembly, such as a church, theater, or restaurant, has been constructed and is ready for occupancy. The project is completed in January; however, the sidewalks and landscaping remain unfinished, and cold temperatures prevent this work from being completed until spring. In such a situation, a TCO should not be issued UNLESS a code-compliant accessible route (which may be temporary) is provided.

If you have any questions, you may contact the Code Assistance Unit at (609) 984-7609.

Source: Jeffrey Applegate  
Code Assistance Unit

NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS

Division of Codes and Standards  
101 South Broad Street  
P. O. Box 802  
Trenton, NJ 08625



FIRST-CLASS MAIL