



# CODEWORD®

THE OFFICIAL NEWSLETTER OF THE BOARD OF BUILDING REGULATIONS AND STANDARDS

~April 1998~

Kentaro Tsutsumi, P.E.  
Chairman

Kathleen M. O'Toole  
Secretary

Argeo Paul Cellucci  
Governor

Thomas L. Rogers  
Administrator

**MARCH 1, 1998, FREE SEMINARS & FREE SOFTWARE!**  
On March 1, 1998 the 5th edition of the one and two family dwelling code (Article 34) was withdrawn and the 6<sup>th</sup> edition (Chapter 36) becomes the only code in effect.

Code change proposals filed for the November 1997 public hearing have resulted in amendments to the building code - effective March 1, 1998. The amendments are available at the State Bookstore and are summarized on pages 2 & 3 of this edition of Codeword.

Also effective on March 1, 1998 is the Model Energy Code 1995\* (MEC 95) as modified for Massachusetts. Free seminars are available. These seminars explain the provisions of MEC95 for low rise residential construction. These seminars include all course work and a free copy of the software developed specifically for the Massachusetts State Building Code.

\*NRFC listing and labeling of windows, doors and skylights effective January 1, 1999.

Advance registration is required and seating is limited - call (800) 689-7953 to register.

Over 1000 building officials and contractors have already attended this seminar making it one of the most successful ever by the BBRS.

See pages 7 & 8 of this issue of Codeword for answers to some of the most commonly asked questions.

## BBRS ANNOUNCES THE OPENING OF A NEW TRAINING FACILITY IN TAUNTON

The BBRS announces the opening of a training facility in Taunton. The Department of Public Safety and the BBRS have leased new office space at the CERC building

at the Paul A. Dever campus in Taunton, MA. The facility includes a 100 seat auditorium.

The BBRS is excited about the opportunities provided by this facility and plans are underway to provide courses of instruction on all aspects of the Massachusetts State Building Code.

Seminar information will be published in future issues of Codeword. See page 4 of this issue of Codeword for details of a seminar on the use of the rafter and joist span tables in 1 & 2 family dwelling construction.

## BUILDING CODE AMENDMENTS EFFECTIVE MARCH 1, 1998

Of the 68 code change proposals filed at the November 1997 Public Hearing 38 were approved, 14 denied and 16 tabled. The 38 changes were filed with the Secretary of State, Regulations Division on February 5, 1998 and published in the February 20, 1998 Massachusetts Register - thus providing legal notification of a change in regulation. The effective date of the changes is March 1, 1998. This date was selected because many of the changes affect the one and two family dwelling code and the date coincides with the date that the fifth edition one and two family dwelling code was withdrawn.

A synopsis of the amendments appears on pages 2 and 3 of this edition of Codeword. Please note that the actual corrected pages are issued by the Secretary of State Regulations Division - THE SYNOPSIS IS NOT A SUBSTITUTE FOR THE ACTUAL REGULATIONS.

For availability of the changes contact the State Book Store. Telephone (617) -727-2834.



# SYNOPSIS OF CODE CHANGES EFFECTIVE MARCH 1, 1998

Section #	Synopsis of Code Change
108.55.2	Section 108.55.2 revised to read: A construction supervisor license is not required for: a) roofing, siding, erection of rooftop solar collectors, construction of swimming pools, the erection of signs, installation of replacement windows not involving structural modifications, the erection of fences; b) projects which are subject to construction control (section 116.0); c) agricultural buildings which are not to the public or otherwise made available for public use; d) Massachusetts registered professional engineers and Massachusetts registered architects provided such engineers and/or architects comply with the construction supervisor exam requirements set forth in 780 CMR R5, generally, and 780 CMR R5.242, as applicable; e) the practice of any trade licensed by agencies of the commonwealth (see MGL c 112 s 61K), provided that any such works is within the scope of said license, including but not limited to wiring, plumbing, gas fitting, fire protection systems, pipe fitting, HVAC and refrigeration equipment.
116.11	Add new section 116.11 to read: Specialized structures requiring construction control: Telecommunications towers and similar structures are engineered and shall be subject to the requirements of 780 CMR 116.
917.9	Add exception 2 to read: Exception 2: Where the head of the fire department or his/her designee determines that partial or selective evacuation is not desired, but rather total evacuation is required, then a distinct visual signal, in lieu of a voice alarm, is permitted.
Chapter 13	Sections 1301.1, 1309.1, 1310.4, 1310.7.2, 1311.6, 1311.8, 1311.8.1 & 2, Table 1311.6 continually amended to provide consistency with the adoption of the CABO Model Energy Code.
1310.7.3	Change item 1 to read: One- and two-family dwellings: At least one (1) thermostat for regulations of space temperature shall be provided for each separate HVAC system. In addition, a readily accessible manual or automatic mean shall be provided to partially restrict or shut off the heating and/or cooling inputs to each zone or floor.
Chapters 21 & 36	Sections 2114.6, 3610.4.7, Table 3610.6.4.1, Figures 3610.4.7a & b amended to harmonize both the main Code and One- and Two-Family Code sections regarding clearances to combustibles for chimneys and fireplaces.
Table 3403	Amend the phrase "Notes to Table 3404" to read "Notes to Table 3403".
3403.2.1(i)	Change reference from Section 3403.4 to 3403.2.2.
3502	Change the definition of Installer of Manufactured Homes to read: "An individual, who on the basis of training and experience, has been certified by a specific manufacturer of manufactured homes as competent to supervise the placement and connection required to install the manufactured homes of that manufacturer. Said certification by the manufacturer shall be in writing; additionally, the certified installer shall possess picture identification in the form of a drivers license or other picture identification acceptable to the building official"
3602.0	Add new definition: Clear span: For simple, continuous and cantilevered bending members, the span shall be taken as the distance from face to face of supports, plus 1/2 the required bearing length at each end.
3603.6.8.1	Revise section to read: Roof spaces: Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, shall have cross ventilation for each separate space by ventilation openings that are protected against the entrance of rain and snow. The openings shall be covered with corrosion resistant mesh not less than 1/8 inch (3 mm) nor more than 1/2 inch (13 mm) in any direction, or other approved screening which provides for equivalent ventilation.
3603.6.8.2	Revise section to read: All basements, cellars which are not used as habitable, occupiable space, and spaces, shall be ventilated by openings in exterior foundation walls, by operable windows or by approved mechanical means. Openings or operable windows shall be located as near as practical to provide cross ventilation. The openings shall be covered with corrosion resistant mesh not less than 1/8 inch (3 mm) nor more than 1/2 inch (13 mm) in any direction, except that when operable windows are used for basement or cellar ventilation, standard window screens may be used as the corrosion resistant mesh. Crawl spaces shall not be used as underfloor plenums.
3603.7.1	Change section to read: Habitable rooms, except kitchens, shall have an area of not less than 70 square feet (6.51 m <sup>2</sup> ). Every kitchen shall have not less than 50 square feet (4.64 m <sup>2</sup> ). Habitable rooms, except kitchens shall not be less than seven feet (2134 mm) in any horizontal direction.
3603.8.1	1. Revise minimum ceiling height dimension from seven feet six inches to seven feet three inches in Section 3603.8.1. 2. Insert exception #3 which reads: Habitable basements shall have a minimum clear ceiling height of seven feet zero inches, except that beams, girders and other obstructions spaced not less than four feet on center may project not more than six inches below the required ceiling height. 3. Re-number existing exception #3 as #4.
3603.9.2	Revise section to read: An opening not less than 22 inches by 30 inches (559 mm by 762 mm) with ready access thereto shall be provided to any attic area having a clear height of over 30 3/8 inches (762 mm). Where doors or other openings are installed in the draftstopping, such doors shall be self closing and be of approved materials as specified in this section, and the construction shall be tightly fitted around all pipes, ducts or other assemblies penetrating the draftstopping.

# SYNOPSIS OF CODE CHANGES EFFECTIVE MARCH 1, 1998

(continued from page 2)

Section #	Synopsis of Code Change
3603.10.4.1	Revise section to read: All emergency escape windows from sleeping rooms shall have a net clear opening of 5.7 sq ft (0.530 m <sup>2</sup> ). The minimum net clear opening shall be twenty inches by twenty-four inches in either direction. Exception: Delete exception number 1. Retain exception number 2 and renumber exception number 2 to "exception" (no numeral).
3603.11.1	Add two exceptions: 1. Existing buildings: new and replacement doors are permitted to be six feet six inches in nominal height. 2. Sliding type doors utilized as a second means of egress shall not be less than six feet six inches in nominal height.
3603.11.2 Exception	Add exception 2: 2. Existing buildings: Doors providing access to bathrooms are permitted to be 24 inches in nominal width.
3603.12.1	Revise section to read: A minimum of three feet by three feet (914 mm by 914 mm) landing or open floor area shall be provided at the interior side of all exit doors. A minimum forty-eight inches in width by forty-two inches in depth landing shall be provided on the exterior side of all exit doors. The floor area or landing shall not be more than 1/8 inches (3 mm) lower than the top of the threshold on the interior side, nor more than 3/4 inches lower than the threshold on the exterior side. Delete existing exception number 2 and replace with: 2. For sliding doors or other doors where the door threshold is located 3 inches or less above adjacent finish grade.
3603.13.2.1	Delete entire section and replace with: A nosing shall not extend more than 1 1/2 inches beyond the face of the riser below.
3603.13.3	Change required headroom height in stairways from six feet eight inches to six feet six inches.
3603.13.4	Revise section to read: Windows are permitted, provided the width of the tread, at a point not more than twelve inches from the side where the treads are narrower, is equal to the tread depth of the straight run of the stair and the minimum width of any tread is not less than six inches (153 mm). The continuous handrail required by 780 CMR 3603.14.1 shall be located on the side where the tread is narrower.
3603.14.1.2	Revise language to read: All stairway handrails shall have a circular cross section with an outside diameter of at least 1 1/4 inches and not greater than 2 inches. Exceptions: 1. Any other shape with a perimeter dimension of at least 4 inches, but not greater than 6 1/4 inches with the largest cross-sectional dimension not exceeding 2 5/8 inches. 2. Approved handrails of equivalent graspability.
3603.14.2.2	Change spacing limits for rails and balustrade (etc.) from four to five inches (102 mm to 128 mm).
3604.1.3	Revise first sentence to read: Surface drainage shall be diverted to a storm sewer conveyance or other point of collection or away from the foundation system to avoid creating a hazard.
Figure 3604.3.1a	Add the words See Section 3604.10 to the end of note number 5.
3605.2.5	Revise section to read: Joists shall be supported laterally at the points of support by full depth solid blocking not less than two inch (51 mm) nominal thickness, or by attachments to a header, band or rim joist, or to an adjoining stud; or shall otherwise be provided with lateral support to prevent rotation.
3605.2.9	Revise section to read: Openings in floor framing shall be framed with double header and trimmer joists and shall be of sufficient cross section to support the floor joists framing into the header. Approved hangers shall be used for the header-joist to trimmer joist connections when the header joist span exceeds six feet (1829 mm).
Table 3605.3.2.11a	Change third column heading from Minimum Spans to Maximum Spans.
3609.10.3	Revise exception 3 to read: 3. When the existing roof has two or more layers of any type of roofing.
3609.10.4	Revise section to read: The reinstallation of existing or damaged wood or asphalt roof covering materials which have been removed is not permitted.
Appendix A	Add CABO MEC 95 to reference standards in appendix A.
Appendix A	Change reference to 524 CMR 2.00-11.00 and 524 CMR 15.00-34.00 to 524 CMR.
Appendix J	Add CABO MEC 95 to reference standards in appendix J.
Appendix J, Section J746.3.1	Revise section to read: At least one thermostat for regulation of space temperature shall be provided for each separate system. In addition, a readily accessible manual or automatic means shall be provided to partially restrict or shut off the heating and/or cooling inputs to each zone or floor.
780 CMR 133	Revise definition of installer of manufactured home to read: An individual, who on the basis of training and experience, has been certified by a specific manufacturer of manufactured homes as competent to supervise the placement and connection required to install the manufactured homes of that manufacturer. Said certification by the manufacturer shall be in writing; additionally, the certified installer shall possess picture identification in the form of a drivers license or other picture identification acceptable to the building official.



## ANNOUNCING A SEMINAR ON THE USE OF JOIST & RAFTER SPAN TABLES

On Wednesday June 3 1998, an evening seminar will be given by the BBRB, entitled "How to use the Span Tables". The seminar will be repeated every Wednesday evening through June and July at the BBRB/DPS training facility in Taunton MA. The seminars begin promptly at 6:00 pm and last approximately one and a half hours. The seminar is intended to provide a review the of design of dimensioned lumber floors and roofs using the span tables in Chapter 36. Cost is a nominal \$10.00 and includes seminar materials. The instructor is Brian Gore, P.E., technical director of the Board of Building Regulations and Standards and a Registered Professional Structural Engineer. Space is limited and advance registration is required. MAIL THE REGISTRATION FORM ENCLOSED IN THIS ISSUE OF CODEWORD together with payment. Register early - space is limited.

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## ENERGY CODE TRAINING ROLLS ON

Training on the energy conservation requirements for new low-rise residential construction (Appendix J) has been available to building officials, builders, and others in the home building industry since mid-January, and over 1000 people have attended the sessions thus far. The demand for the training has been strong, and some of you, unfortunately, may have been disappointed that a training nearby to you was already full when you called to register. BBRB is responding to the demand by stepping up our training schedule, and by making the following offer to any interested party;

BBRB understands that it often falls to local building officials to educate the builders in their communities about certain aspects of the Code, and that this can be a time burden. To help everyone understand the new energy provisions better, we can provide a special training on the new Appendix J. If you can host a session for at least 40 builders, designers, sub-contractors, or other building officials, our Energy Code Coordinator, David Weitz, will come to your town and provide the training at no charge. These sessions can be morning, afternoon, or evening; whatever works best for your community. Remember too, officials receive 4 hours of continuing education credits for attending the course. If you would like to arrange for the training, please contact David at 617-727-3200, ext. 652 to schedule a time and date, or to discuss further details. See frequently asked questions pages 7 & 8, this issue.

## BBRB MEMBER PROFILE DANIEL O'SULLIVAN

This edition of Codeword profiles BBRB Vice Chairman, Daniel O'Sullivan. Dan is a Certified Building Commissioner and currently serves as the building commissioner of the City of Springfield. Dan was appointed to the Board in 1993 in the capacity of Building Official from a City. In addition to serving as a member of the Board, Dan also serves on the Building Code Appeals Board. He has worked on the Building Official Certification program since the planning stages in the early 1980's and currently serves as the vice chairman of the Building Official Certification Committee. Dan has been with the City of Springfield Building Department since 1972 and was appointed Assistant Building Commissioner in 1987 and Commissioner in 1997. Dan is a charter member and one of the founders of the Building Officials of Western Massachusetts, which was incorporated in 1973.

In his spare time Dan and his wife Maureen enjoy camping, boating, fishing and spending time with their grandson Ryan.

Next issue- Codeword profiles Stanley Shuman, P.E., General Contractor of Commercial/ Industrial Buildings.

For a complete listing of BBRB members see the Massachusetts State Building Code or visit the BBRB web page @ <http://www.magnet.state.ma.us/bbrb>

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## GOVERNOR CELLUCCI APPOINTS NEW BBRB MEMBER

On December 22, 1997, Governor Cellucci appointed Mr. Stephen Dixon to the position of General Contractor of One and Two Family Dwellings. This seat became available following the resignation of longtime board member Tom Donovan. The BBRB and its staff welcome Mr. Dixon and congratulate Mr. Donovan on his distinguished service to BBRB.

For a complete listing of BBRB members visit the BBRB web page @ <http://www.magnet.state.ma.us/bbrb>

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## DOUGLAS COLE SMITH R.A.

The Board is saddened to announce the death, on January 30, 1998, of former member Douglas Cole Smith, R.A. Doug served the Board with distinction for many years and was a devoted servant of the Commonwealth. The BBRB and its staff extend their deepest sympathy to Doug's family.



## CERTIFICATION OF SIX BUILDING OFFICIALS REVOKED

Following the first three year renewal period for certification, the following six building officials failed to maintain their continuing education requirements as required by 780 CMR R-7. A total of 45 hours of continuing education credit per 3 years is required to maintain certification as a building official. Following public hearings the certification committee recommended that the Board of Building Regulations and Standards revoke their certifications as building officials. At regular meetings of the BBRS on January 13 and February 10, 1998 the BBRS voted, unanimously, to revoke the certifications of the following:

John Anderson, III	Certification # 92-11-581
William Heiser	Certification # 92-11-218
Rene Morin	Certification # 92-11-242
Travis Burdick	Certification # 92-11-199
Stephen D'Alessio	Certification # 92-11-353
Frankie DeCoster	Certification # 92-11-231

This latest action follows the earlier revocation certifications of eleven building officials. (See related article in the January, 1998 edition of *Codeword*).

For a listing of certified building officials visit the BBRS web site @ <http://www.magnet.state.ma.us/bbbs>

## BUILDING OFFICIALS OF WESTERN MASSACHUSETTS INC., GETS INVOLVED

Brian Gale, Town of Orange Building Commissioner and BOWM member attends all regular meeting of the BBRS and all public hearings as the BOWM designated representative. Brian then provides a comprehensive update of BBRS activity to the BOWM membership.

## SOUTH EASTERN MASSACHUSETTS BUILDING OFFICIAL ASSOCIATION HONORS PAUL PIEPIORA AS "INSPECTOR OF THE YEAR".

Congratulations to Paul Piepiora, District State Inspector based in the Department of Public Safety's Taunton Office upon being honored as *Inspector of the Year* by the South East Massachusetts Building Officials Association (SEMBOA). Paul has been a stalwart in the Department of Public Safety, Division of Inspections since 1985 and was instrumental in the development and delivery of training seminars to prepare building officials to take the BOCA certification examinations - a required step in the process of

obtaining certification as a building official in Massachusetts.

This award reflects the high esteem in which Paul is held amongst the Municipal Building Officials in South Eastern Massachusetts .....Congratulations Paul.

## 1998 PUBLIC HEARING - MAY 26, 1998

The BBRS will hold its next scheduled public hearing on Tuesday May 26, 1998 at 1:00 pm at One Ashburton Place Boston, MA 02108 in the 21<sup>st</sup> floor conference rooms. This is the public's opportunity to present testimony on code changes to the State Building Code. The BBRS is required to take action within 90 days of the close of the public hearing.

For dates of all public hearings and regular meetings of the BBRS visit our web page at <http://www.magnet.state.ma.us/bbbs>

## EMERGENCY CODE CHANGE APPROVED

At its February 10, 1998 regular scheduled meeting the BBRS approved a code change to be filed as an EMERGENCY AMENEDMENT. The change allows the use of NFPA 13D sprinkler systems in the construction, and where required by Chapter 34, the renovation of so called "three deckers". The amendment will reduce sprinkler costs in this type of buildings below those costs associated with a system installed in accordance with NFPA 13R. Water supply requirements of NFPA 13 D however are required for a minimum duration of 20 minutes (NFPA 13 D permits 10 minute minimum duration). THE EMERGENCY CHANGE IS EFFECTIVE MARCH 9, 1998.

## PERIODIC INSPECTION OF SCHOOLS

A recent television news story by Paula Childs and Victoria Block of Channel 7 (WHDH) highlighted the fact that building officials need to be ever vigilant about a potential problem facing an occupant of a building today --- chained and padlocked emergency exits. Some building owners, in an effort to control INGRESS into a building for security issues, may inadvertently compromise safe EMERGENCY EGRESS. Chains and padlocks on doors are potentially dangerous and are not permitted. The code provides provisions for special locking arrangements which allow for both security and safe egress in case of emergency - Chains and Padlocks do not comply. In addition the BBRS reminds all building officials that ANNUAL INSPECTIONS ARE REQUIRED FOR SCHOOLS, in addition to other use groups at frequencies specified in 780 CMR Table 106.



## ENERGY CODE - FREQUENTLY ASKED QUESTIONS

Here are answers to some of the most commonly asked questions that have been raised at our energy code training workshops.

Q Section J4.4.2 requires heating loads to be calculated for a house, and that the installed heating and/or cooling systems are no more than 125% of the calculated load. Can the systems be sized to include an unconditioned basement (or Cape 2<sup>nd</sup> floor) that the homeowner plans to finish in the future?

A. Yes. Even though acceptable load calculation methods already include a safety margin that may be enough to cover such future cases, the HVAC designers may include these "to be conditioned" spaces in their calculations. They may not, however, include any additions that the homeowners may be planning. In other words, this exception applies only to spaces that are actually being constructed on the existing permit, even though they are not to be occupied immediately. The loads should be calculated for such unfinished spaces based on finished insulation levels, and the load calculations must be submitted to the building official prior to the heating system being installed. Also, remember that the HVAC designer must follow the design conditions described in section J3.

Q. If a home is being built with a walkout wall in an uninsulated basement, but a homeowner decides, during construction, that the basement will be finished, do the basement walls and slab edge then need to be insulated?

A. Not necessarily. If the "Manual Trade-Off" or MAScheck approaches are used to demonstrate design compliance, then insulation may actually be omitted at the slab edge as long as the proposed energy loss of the whole house is less than or equal to the required energy loss ("UA".) Practically speaking, this may be difficult. But if the foundation is already in and backfilled, then the absence of slab edge insulation may be traded off against other elements that are improved.

Q. When a builder submits energy calculations with construction documents (using the "Manual Trade-Off" or MAScheck software compliance options), should fireplaces that penetrate an exterior wall be entered as a separate component since they have a different R-value from the rest of the wall? Similarly, how should chimneys that pass through an insulated ceiling be handled?

A. Although fireplaces and chimneys are likely to have different R-values from framed portions of a house, these elements may be treated as part of the overall insulated walls or ceilings that they penetrate. Consistent with BOCA interpretation, this approach makes the process much easier for builders to perform their calculations, and is in the spirit of enforcing the energy code "humanely." The more important thing to remember is that these penetrations must be sealed to prevent air from accidentally leaking around them. This air leakage would account for significantly more wasted energy, and should be verified during an insulation/air sealing inspection.

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## GOVERNOR CELLUCCI DECLARES APRIL 5 THROUGH 11 "BUILDING SAFETY WEEK"

Governor Cellucci has declared April 5 through 11 Building Safety Week. Building Safety Week is intended to increase public awareness of the roles of building officials and the Massachusetts State Building Code in the design and construction of safe and energy efficient buildings and structures. Realization of the importance of building regulations is often overlooked until a major disaster such as a fire or building collapse occurs.

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## OMEGA FIRE SPRINKLER ADVISORY

On March 13, 1998 the State Fire Marshal and the Administrator of the BBRS issued a joint letter to all Inspectors of Buildings/Building Commissioners and Fire Chiefs relative to an alleged functional problem with certain sprinkler heads manufactured by Central Sprinkler Company, under the brand name "Omega".

Reports have indicated that water pressure in excess of the listed operating pressure has been required to operate some Central Sprinkler Company Omega series sprinklers. Nationally, there have been seven fires where Omega sprinkler heads failed to operate.

On March 4, 1998 the U.S. Consumer Product Safety Council filed an administrative complaint against Central Sprinkler Corp. alleging that its Omega series sprinkler head present a substantial product hazard. The complaint seeks a nationwide recall of approximately 10 million Omega sprinklers manufactured since 1982.

For further information visit the BBRS Web Page @ <http://www.magnet.state.ma.us/bbbs> and click on the omega message or visit the State Fire Marshals Web Page <http://www.magnet.state.ma.us/sfmo/omega.htm>



**BBS APPROVES THREE OFFICIAL INTERPRETATIONS**  
At its regular meeting of March 10, 1998, the BBS approved three official interpretations. Official Interpretations have the weight of regulation..

- 47-98: Firecut beams and seismic restraint.
- 48-98: Measurement of aisle accessway widths in rows of seating with folding tablet arms and the use of referenced standards.
- 49-98: General issues relative to smoke detector requirements in one and two family dwellings

These interpretations are included in this edition of *Codeword* and additionally may be accessed on the BBS Web Page at <http://eee.magnet.state.ma.us/bbs>.

The interpretations will also be published in Appendix B of the State Building Code.

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#### COMING SOON - ONE & TWO FAMILY DWELLING CODE SEMINARS

The BBS is planning a series of seminars FOR BUILDING OFFICIALS ONLY on the One and Two Family dwelling code.. The seminars will be intensive two day long sessions and will be held at 5 different locations throughout the State. Seminars will be scheduled for mid May through June of 1998. Details will be sent to all building officials when the seminar details are finalized.

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#### SIXTH EDITION SMOKE AND HEAT DETECTOR REQUIREMENTS IN ONE & TWO FAMILY DWELLINGS (Excerpted from BBS Official Interpretation Number 49-98 - included with this issue)

##### Background / Discussion:

The Sixth Edition of the Massachusetts State Building Code (the Code), Section 3603.16 is titled: "FIRE PROTECTION SYSTEMS" and specifies all required fire protection system requirements for new construction one-and two-family dwellings that are single or two-family detached buildings; additionally, Section 3603.16.13 sets requirements for when smoke detector requirements for new construction will apply to additions, alterations and/or renovations.

The Sixth Edition One- and Two-Family fire protection system requirements, differs from the Fifth Edition Code in several ways.

The Sixth Edition, in part, reflects the philosophy of NFPA 72-1996<sup>(FN-1)</sup>, "National Fire Alarm Code" in that:

1. Household fire warning systems may consist of either ac primary powered single and multiple station smoke detectors complying with ANSI/UL 217, or;
2. Household fire warning systems (note that these household fire warning systems could be referred to as "a fire alarm panel with low voltage connection to detectors, etc."), may consist of a listed control unit complying with UL 864 or UL 985 with automatic smoke detectors complying with UL 268 and occupant notification appliances complying with UL 464 or UL 1971 if such notification appliances incorporate strobe lights - if supplementary visual signals are utilized they should comply with UL 1638, and;
3. All household fire warning systems shall have secondary power supplied from monitored batteries, and;
4. Massachusetts provisions require the use of photo electric smoke detectors rather than the ionization type smoke detectors when such smoke detectors are on the same floor and within twenty (20) feet of a kitchen or bathroom containing a tub or shower (to prevent nuisance false alarms characteristic of ionization type smoke detectors in proximity to kitchens and tub or shower areas), and;
5. Electrical compatibility (listed for intended purpose - see Section 3603.16.2) between smoke detectors and/or notification appliances to ensure that all portions of the household fire warning system will operate properly, and;
6. In addition to smoke detector requirements, the Sixth Edition of the Code has been structured to address heat detector requirements but at this time, and until Section 3603.16.4 is otherwise amended, HEAT DETECTORS ARE NOT REQUIRED IN ONE- AND TWO-FAMILY DWELLINGS, and;
7. Section 3603.16.8.1 addresses "non-required" alarm notification appliances and non-required smoke or heat detectors and requires that such are to be installed so that the actuation of any non-required detector shall cause the alarm in all required and non-required detectors in the dwelling unit to sound, and;
8. Section 3603.16.13 requires fire warning systems for new construction throughout an existing dwelling when one or more sleeping rooms are added or created in an existing dwelling.

FN-1 Note that although NFPA 72-1996 is titled the "National Fire Alarm Code", NFPA 72 is a national



reference standard and where Massachusetts State Building Code regulations explicitly differ from the requirements set forth in any reference standard, the requirements of the State Building Code govern.

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#### CONSTRUCTION SUPERVISOR LICENSE CLARIFICATION

Please note that the descriptor for the unrestricted Construction Supervisor License has been clarified to read: "00 - 35,000 CF ENCLOSED SPACE (MGL C.112 S.60L)"

This restriction has **NOT** changed from what the license has allowed you to do previously. The amended description should not be interpreted as an error in processing nor should it be considered a reduction in the limitation of your unrestricted construction supervisor license.

To look up a licensed construction supervisor visit the BBRs Web Page @ <http://www.magnet.state.ma.us/bbrs>

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#### WE'D LIKE TO HEAR FROM YOU

If you have any comments, suggestions or topics which you would like to see discussed in *Codeword*, please drop us a line care of the Editor. The BBRs reserves the right to reprint letters in whole, or in part.

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