

FINAL REPORT

BUILDING CODES EDUCATION AND OUTREACH COUNCIL ADMINISTRATOR

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EXECUTIVE SUMMARY AND CONTENTS

This report provides results and recommendations relating to building codes education and training from the work of three entities:

Building A Safer Florida, Inc.
Building Officials Association of Florida
MRC Consulting, Inc.

These entities worked closely with the *Building Codes Education and Outreach Council (BCEOC) as well as the Florida Building Commission Education Program Oversight Committee (or POC). The BCEOC is made up in part of representatives of the licensing boards for all licensing categories required to comply with the Florida Building Code. As such, the interests of these boards are represented by the BCEOC.

This report proposes programs and course subjects and offers solutions all of which are designed to improve understanding, compliance, and education for licensees required to comply with the Florida Building Code.

The overall conclusion in this report is that education and training for the design and construction industries in Florida will benefit greatly from a well-developed single source of information so that all interested parties can go to one entity and one location to find information on available courses, licensing requirements, related materials, and opportunities for course development. Access to such information and materials must be such that it is easy and useful for infrequent users, and it must be based primarily on the needs of the affected licensees required to comply with the Florida Building Code.

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*The Building Codes Education and Outreach Council was repealed by the Florida Legislature in chapter 2007-187, Laws of Florida, now in effect.

OUTREACH IN GENERAL

Outreach is for the purpose of making one or more persons or groups of persons aware and knowledgeable about something. Outreach is different from advertising in that outreach is not directly intended to attract or entice a person to make a purchase or perform an act. Outreach is not intended to simply attract, but rather to alert and inform.

For purposes of the Florida Building Commission and other Florida regulatory functions, important components of outreach are:

1. Provide needed or desired information.
2. Provide accurate information.
3. Provide unbiased information.
4. Provide meaningful information as simply as possible.
5. Provide information focused on the message (avoid "fluff").
6. Provide consistent information among all audiences.
7. Provide the correct level and amount of information.
8. Know the persons or populations (audiences) to be reached.
9. Reach the target audience(s).

Because outreach is fundamentally different from advertising and intended to convey a message, the success of it depends on credibility and good faith of the message. Outreach should not be based on or should not include the following:

- Judgments, opinions, or preferences
- A determination about the worth of the message or outreach
- Inaccurate or speculative statements or pronouncements
- Premature statements or announcements
- Assumptions about the audience(s)
- Limitations for audiences that cause conflict for other audiences

For outreach, the following elements exist: need, message, means, methods of dissemination, and measure of effectiveness.

The need for outreach is determined in different ways. A change in the law may warrant outreach. The results of a study may reveal a need for outreach. Anecdotal evidence of lack of understanding may signal that outreach will be beneficial or will correct the matter. Multiple questions will often indicate that outreach would be useful. Regardless of the fact that persons and businesses are required to know their obligations under laws and rules, outreach is generally beneficial to encourage compliance and good practice in a positive way rather than through expensive discipline or after-the-fact correction.

Messages for outreach need to be developed with broad input. It is not enough for the message to be developed or generated by one interested person or interest group – this is more like expression of an opinion or advertising. For example, a message developed with the perspective of one interest group may not provide any useful information to a target audience that has no reason to have that same perspective. In addition, an interest group that is frustrated by

lack of knowledge or understanding by a certain population may develop a message for outreach that is received as a punitive message. In this case, it is not likely that outreach will be effective because the audience is likely to be angered and miss the useful message. This can generally be avoided with input from interest groups outside of the one seeking the outreach.

There is no single means of effectively performing outreach. For example, there is nothing to indicate that physical delivery of a piece of mail will be more effective than performing outreach through publication or posting or by any other means. Likewise, it cannot be said categorically that audiences respond better to short messages than to detailed information. In determining the best means of outreach, it is important to consider the type of message (is this simply an alert or a description), the existence of (and ease of access to) more detailed information available to the audience, the immediacy of the content of the message (will this affect the audience member today or some day in the future), and whether the subject of the outreach is a mandate or an option.

The method of dissemination depends not only on the message and the means, but also on cost and on likelihood of success in reaching the maximum number of persons in the audience. A piece of mail may be disregarded as junk mail. An outreach message published in a regular publication may be ignored as an advertisement or in an area not read by the audience (i.e. legal advertisements). An alert posted on a website may be useless to the audience or portion of an audience most in need of receiving the message. But, at any given time and for any given message, any of these could be the best method of dissemination. Some of the factors needed to know (not guess or decide, but know) what will be the best method of dissemination cannot be known until after the fact. Generally, it is best to attempt multiple methods of dissemination, as well as repeated dissemination, to ensure reaching more than a minimum number in the audience.

Finally, the measure of effectiveness will always be the most elusive aspect of outreach (or, for that matter, education). The best measure is compliance in practice or operation. The next best measure is testing for understanding as is often done with education. Other measures of effectiveness include observations of increased access to information or traffic on websites or by telephone calls or in-person inquiries as well as increased use of referenced materials. Most of these measures are difficult to document. For effective outreach, the focus should be on making sure the audience is familiar with the source and understands that the outreach provided is meaningful information. This will happen over time and with consistency.

Types of Outreach

There are many types of outreach, and selection for use deserves thought and planning in advance. The goal should be to establish certain types of outreach to be used consistently as to subject, timing, and format. This allows

outreach to follow audience expectations. For codes-related licensee outreach, the types of outreach appropriate include:

- Outreach for mandates, including certain changes in law, new standards adopted, and addition or deletion of requirements.
- Outreach for options, including information sources, reference materials, alternative ways to comply (such as serving on a board or panel in lieu of continuing education classes), and improvements made that will be helpful for the audience.
- Outreach for technical understanding, such as distribution of fact sheets or publication of technical articles.
- Continuous outreach to serve as reminders of obligations.
- Timed outreach that may or may not be continuous or regular, such as a reminder of specific course requirements before license renewal.
- Official outreach coming primarily from one source to reduce confusion and encourage audiences to distinguish between advertisements or proprietary promotions and needed information.

Audiences for Outreach

Although licensees should be the focus, they are not the only audience for outreach. Licensee needs for information cannot be decided in a vacuum, and those who deal with licensees (on any level) should also be considered audiences for purposes of outreach. Further, in order to improve understanding and compliance, there needs to be interaction between the licensee audience(s) and these related audiences. There are two categories of audiences:

- Primary audiences are licensees required to comply with the Florida

Building Code:

- Building Code Administrators and Inspectors, part XII, chapter 468, Fla. Stat.
- Engineers, chapter 471, Florida Statutes
- Architects, part I, chapter 481, Florida Statutes
- Interior Designers, part I, chapter 481, Florida Statutes
- Landscape Architects, part II, chapter 481, Florida Statutes
- Construction Contractors, part I, chapter 489, Florida Statutes
- Electrical Contractors, part II, chapter 489, Florida Statutes

This can be one audience or several broken into various categories. This is for the licensee perspective for regulatory requirements and compliance information to be readily available in a variety of formats and disseminated through various means. The information should be published in laymen's terms and designed to help occasional users who have no reason to become familiar with jargon or complex websites and the like.

- Audiences of Involved Persons or Interest Groups:
 - Federal, state and local governmental agencies
 - Persons planning on becoming a licensee in any of the above professions
 - Continuing education providers (proprietary, academic, and other)

- Suppliers, manufacturers, and distributors (related service interests)
- Florida's citizens and consumers (generally and specific groups)

The information should be useful for the benefit of affected licensees, for use (distribution) by affected licensees, and as a way for interested groups and persons to reach licensees.

Means and Methods of Dissemination

There are a number of means and methods of dissemination available and established to reach affected licensees and others. The most effective means for reaching the primary audience are likely to be:

Regular or electronic mail – All licensees provide a mail address, but not all provide an e-mail address. With mail, it can be documented that a reasonable attempt has been made to reach all licensees. For outreach related to mandates, this may be required, regardless of effectiveness. The problems with this method are that many licensees will disregard the material and the expense is significant. It costs approximately \$50,000.00 to send out a piece of mail the size and weight of a letter to all affected licensees. If done directly, the expense and labor would require this to be sponsored or otherwise paid for each task.

Posting or dissemination at frequented locations – The best example of this is posting at building departments. So long as there is a reason for most licensees to appear, posting or disseminating at frequented locations is likely to be very successful and result in better attention paid to the message.

Trade or professional magazine or newsletter publication – All organizations have a way to communicate with their full membership, and this is a very effective tool. Publishing in a trade or professional magazine or newsletter will be successful, but the audience is likely to be limited to members of the organization. Outreach by this method is likely to be most successful if it is done regularly as licensees then become accustomed to looking for a message.

Website – Coupled with other methods of dissemination, outreach through the use of a clearinghouse design website (see Appendices E and F) is particularly effective if the message requires or motivates the audience to take additional steps or obtain additional information. Outreach by this method is likely to be most successful if it is done regularly as licensees then become accustomed to looking for a message.

Presentations – Where the message is complicated or involved and requires that the audience learn a new method of procedure, this method of dissemination is very effective. It allows for questions and demonstrations unlike any of the methods listed above. Some presentations may be suitable for online or distance (PDA or Smartphone) delivery.

Telephone – This is generally used to provide responses to inquiries, but it can also be used as a method of dissemination. Outreach can be performed through the use of telephone banks to place call (live or recorded) to the audience. In addition, when calling certain main or official telephone numbers, a

caller can be greeted with a recording before call pick up that conveys a message.

OUTREACH INITIATIVES AND SCHEDULE

Outreach initiatives proposed for licensees affected by the Florida Building Code are (in order of priority):

Outreach for Mandates

Outreach under this initiative is broken down into two components. The message itself, and it should be no more than a concise alert message. Information on where to find more detail, including information about the requirement(s) as well as available means to comply with the subject change or addition. For this type of outreach to have value for the licensee, it needs to be and remain very structured and it needs to apply to overall changes (rather than those specific to a trade or profession, method of design or construction, or the like). This outreach falls into two categories:

- Alert message with each new version of all or part of the Florida Building Code

This will include updates stemming from the regular three-year cycle, any glitch or technical cycles, any special cycles, and any updates or changes resulting from the passage of legislation (state or federal). A single format for this type of alert should be established and *strictly* followed so that licensees can become accustomed to both the visual and substantive worth of this type of outreach message. This type of outreach needs to be disseminated widely. The preferred ways are:

- By a concise mail piece to all licensees
 - By electronic dissemination to all building departments, state and local licensing departments, and education providers
 - By publication in newsletters and/or magazines of trade or professional associations as well as regulatory entities
 - By posting on as many websites as possible (both public and private)
- Alert message with any change in obligation or requirement for the licensee to be in compliance with respective licensure laws as such relates to building codes (the goal would be to expand this to include all licensure obligation changes).

A good example is the adoption by various licensure boards of a time requirement for advanced codes courses. A separate alert message to all licensees for the particular category would have been helpful. This type of outreach needs to be targeted for the specific audience and disseminated widely. The preferred ways are:

- By a concise mail piece to all licensees
- By electronic dissemination to all building departments, state and local licensing departments, and education providers

- By publication in newsletters and/or magazines of trade or professional associations as well as regulatory entities
- By posting on as many websites as possible (both public and private)

Outreach as a Benefit to Licensees

Outreach under this initiative is intended to help all licensees in two ways. First, it should serve to remind or inform the licensee of time-sensitive obligations (such as continuing education requirements). Second, it should provide a current guide for the licensee to quickly access information to ensure that the effort to meet his or her obligations will actually do that. For example, if it has not already happened, there is great potential right now for a licensee to take a continuing education course on building codes believing such course will meet the advanced codes requirement when in fact it does not. Outreach can significantly reduce the potential for this type of confusion and possible mistakes. This outreach also falls into two categories:

- Timed reminder messages specific to licensure categories.

These messages will generally relate to continuing education obligations, but there are other matters that fall into this category. An example is a change in a code requirement that will generally affect particular types of licensees that takes effect on a certain date. Two good examples of this are the recent legislative change relating to designing to internal pressures and the fairly recent federal energy change for air-conditioning equipment (13 SEER). To be most beneficial, these messages need to be in a format that will allow or encourage the licensee to begin planning, make changes, or calendar the event. This type of outreach should be available widely, but the cost needs to be taken into account (since it is a benefit, rather than what could be construed as an obligation of government). The preferred ways are:

- By electronic dissemination to all licensees who voluntarily sign up to receive such messages
- By electronic dissemination to all building departments, state and local licensing departments, and education providers
- By publication in newsletters and/or magazines of trade or professional associations as well as regulatory entities
- By posting on as many websites as possible (both public and private)
- Periodic messages to provide licensees with new or updated listings of sources or other information.

There could be tremendous variation in these messages. In order to ensure that variation does not cause confusion, a format for this type of message should be adopted. The format needs to give the licensee notice of the type of message, but it also needs to allow for maximum flexibility to accommodate the various types of information that could be disseminated through this type of message. The existing fact sheets are one example of this

type of message. Other examples include plain listings of product manufacturers, continuing education providers, continuing education course lists (for example, a listing of all approved advanced codes courses), or a listing of all governmental authorities with jurisdiction at any level relating to a certain subject (such as energy). This type of outreach should be available widely, but the cost needs to be taken into account (since it is a benefit, rather than what could be construed as an obligation of government). The preferred ways are:

- By electronic dissemination to all licensees who voluntarily sign up to receive such messages
- By electronic dissemination to all building departments, state and local licensing departments, and education providers
- By publication in newsletters and/or magazines of trade or professional associations as well as regulatory entities
- By posting on as many websites as possible (both public and private)

Outreach for Technical Information or Compliance Purposes

Although many believe that, other than fines or citations, education is the way to correct problems, it is also true that outreach can be effective. In keeping with the general idea that compliance and understanding will likely be better by pulling, rather than pushing, licensees, a mechanism for this type of outreach needs to be in place. Performing this type of outreach should be based on a showing of need. Examples of such need include frequent building code violations as reported through studies or anecdotally, formal or informal consumer complaints, poor performance of a product that is attributable to installation problems or apparent misunderstandings, and continuing disagreements between categories of licensees and others. This form of outreach will rarely be possible through the use of concise messages. Instead, it is likely that the message itself will need to be in the form of an article, report, or bulletin and will sometimes require reference to or inclusion of additional materials.

Unless the problem is widespread, this form of outreach will be most effective if performed as follows:

- By electronic dissemination to all licensees who voluntarily sign up to receive such messages
- By electronic dissemination to all building departments, state and local licensing departments, and education providers
- By publication in newsletters and/or magazines of trade or professional associations as well as regulatory entities
- By posting on as many websites as possible (both public and private)
- By presentation to target audiences (use of continuing education credits will be helpful to encourage participation)

EDUCATION OUTREACH PROGRAMS

Education outreach, and outreach generally, will be most effective if generated through a common source. Licensees are not served well if messages are all different, even if slightly, and coming from a variety of sources. In order to achieve the ultimate goal of understanding and compliance, licensees must be able to understand the message and rely on the sources.

The first step is to establish a clearinghouse to collect and disseminate information and tools for obtaining information and knowledge. It is important that the clearinghouse itself, as well as the ability to contribute information to it, be available and accessible to all. To ensure credibility and appropriateness, availability needs to be managed in accordance with certain standards.

The clearinghouse should focus primarily on providing *access* to information, rather than on holding or housing information. This is for two reasons. First, it will be able to process more information and material and do it in a timely manner. Second, this will keep costs reasonable. As part of this, the in-house expertise of the clearinghouse should be information-based, rather than technical in nature. For example, it would be costly, duplicative, and possibly contradictory for the clearinghouse to have building codes experts on staff. On the other hand, having experts on governmental resources and process, private and academic resources, and industry needs is key for the productivity of this clearinghouse.

The clearinghouse should also focus on providing access to information that is both academic and practical. Today, there are many sources of excellent academic information, and the clearinghouse will perform a meaningful service by linking all interested parties with all the various sources. An area that has not had as much attention is practical information that, for purposes of code performance and compliance, is just as important as academic information and research. The clearinghouse will perform a much needed service by increasing emphasis on providing access to practical information and resources.

Specific Education Outreach Programs

The following are proposed education outreach programs for the benefit of licensees required to comply with the Florida Building Code:

- Codes-related continuing education requirements in the form of information about what is required and the ways in which the licensee can fulfill the requirements.
- Codes-related continuing education course availability, including:
 - A complete listing of approved and available courses including notation(s) on the requirement(s) fulfilled by the taking of the course
 - A listing of approved and available courses applicable by licensure category, and, if possible, by subject area of the Florida Building Code

- A listing of approved providers of continuing education
- Description of methods by which a licensee can take a course and receive credit (i.e. which boards allow distance learning and the requirements for it)
- Mechanism for licensees and others to provide input on subjects for courses desired or needed (available means for input needs to be by telephone, mail, fax, and electronic mail or through a website). Information collected to be categorized and disseminated to course providers and others.
- Mechanism for new course availability to be announced for the benefit of licensees and others. Tool available for use by any approved education provider.
- Mechanism for reports, manuals, bulletins, and similar information to be announced or posted for the benefit of licensees. Individuals or entities will be required to provide certain identifying information (see below) and information must meet certain minimal standards.
- Mechanism for surveys and other data collection tools to be announced or made available for licensee and other participation. Arrangement will be made for availability of dissemination of survey or other tool by electronic mail, and, if sponsored, by regular mail.

COORDINATION AND FORMATS FOR EDUCATION OUTREACH PROGRAMS

There are many options for education outreach, and there is every reason to use more than one. By using more than one format, education outreach will not only reach more licensees, but it will also be a more useful tool for licensees. The types of formats are the same as described under outreach generally and outreach initiatives. Proposed formats include:

Website – Clearinghouse design with a combination of posted information (such as announcements) and materials (such as reports, laws, rules, and listings generally in Adobe Acrobat PDF format), and specific hyperlinks to other sites (governmental and private). The intent is to create a location that will assist the licensee to quickly find information and additional sources for more detailed information. The intent is also to provide a tool for infrequent industry or non-industry users to reduce (or eliminate) the need to understand how to navigate more complex websites. Posted information would be appropriate for documents such as finalized reports or notices (that will not be subject to change). Whereas hyperlinks will be more appropriate for information that is updated or subject to frequent change. Please see Appendices E and F.

Important components/features of the clearinghouse website include:

- Administrator strength to ensure updating and accuracy
- Objective of bringing together building code, licensure, and related subjects
- Solid and focused division of subject areas to allow for targeted messages
- Opportunities for entities to post notices or information
- “Free advertising” aspect of the clearinghouse (subject to certain standards)

- Continued emphasis on simplicity and focus for best use and service
 - Structure (primary navigation tolls) of the clearinghouse website include:
 - Publications
 - Government Information
 - Licensure
 - Continuing Education
 - Requirements of Licensure / Unlicensed Activity
 - Questions and Feedback (Contact Us)
 - Calendar of Events

Materials – Education outreach through clearinghouse access to and availability of materials for licensees and others, to include: flyers, articles, technical bulletins, fact sheets, manuals, notices, and more. Materials through the clearinghouse would be available for use free of charge and could be disseminated by mail or electronic mail or could be accessed by link from other websites.

Mailings – To be used as mailings made by and through the clearinghouse as well as clearinghouse access or assistance with mail lists by licensee category, geographic region, or other possible breakdown. Mailings done directly by the clearinghouse would require funding or sponsorship. The format of mailings also applies to receipt and response for individual licensee needs and inquiries.

Presentations – Use of the clearinghouse design to bring together education outreach needs with presenters, audiences, and sponsors. Among other things, the clearinghouse must serve as a speaker's bureau where presenters can post qualifications, availability, and subject matter expertise. Types of sponsors include state and local associations, regulatory and other boards or commissions, citizen groups, manufacturers, and suppliers. Proactive use of a good calendar of events may improve use and participation for this feature.

Telephone Inquiries – Clearinghouse design (toll-free telephone number) to provide direction to any caller. Clearinghouse staff needs to be qualified to answer general questions and know where to direct callers to obtain answers to specific questions.

There are many advantages in using a website as the primary means of education outreach, including the ability to easily and quickly handle (post or link to) large amounts of information, round-the-clock access for licensees, and the ability to instantly obtain documents ready for dissemination. The major disadvantage is for licensees who cannot access it. For this, the use of telephone, mail, and fax must be available.

Coordination of Resources for Outreach, Information for Posting, Links, and Use

An important task for the clearinghouse for effective education outreach is coordination of sources with available material and information. At a

minimum, the clearinghouse must seek the participation of the sources listed below. In addition, the clearinghouse must develop one or more listings and allow for search functions (for individual documents or pieces of information as well as sources) for anyone interested in knowing more about the level of coverage provided by any education outreach program and the clearinghouse.

Types of sources that need to be included:

- Governmental (emphasis on state, but include federal and local)
- Associations (licensee and other)
- Providers (education, products, services, etc.)
- Academic (all levels and types, including model code organizations, etc.)
- Citizen groups (elders, disabled, specific populations, condominiums, etc.)

Ensuring Effectiveness of Education Outreach

Ultimately, the job of collecting all the information and resources is not meaningful unless it reaches the intended audience or audiences. The only way this can be assured is with input and participation from the trade and professional associations representing licensees subject to the Florida Building Code. Not only do these organizations serve as the voice for their licensee members, but most also dedicate substantial time and resources to quality education and training provided as a member benefit. The existence of most of these organizations is to further the integrity of their respective segment of the design or construction industry. For many years, these organizations have been dedicated to the development of models for outreach as well as education and training that serve as the foundation for the recommendations in this report.

Making use of their input and addressing their needs is crucial to the success of outreach as well as education and training.

COORDINATION OF COUNCIL APPROVED ADVANCED COURSE SUBJECTS

The list of course subjects tendered by the Building Codes Education and Outreach Council in October 2006 is:

- Accessibility –understanding and uniformity – Florida Building Commission
- Construction laws and rules - construction contractors (aiding and abetting and more)
- Safety standards for live electrical parts – electrical contractors
- Site and parking lot accessibility - landscape architecture perspective
- Commercial swimming pools and spas – landscape architecture perspective
- Lighting (site and energy conservation) – landscape architecture perspective
- Water conservation through storm water design - landscape architecture perspective
- Site design - landscape architecture perspective
- Roof gardens and green roofs - landscape architecture perspective
- Outdoor type structures (arbors, shelters, large gathering facilities, etc.) - landscape architecture
- LEED related topics - landscape architecture perspective
- Understanding and applying Florida Building Code for facilities in the high-velocity hurricane zone (sequence of 2, 4 hour sessions) - engineers
- Understanding and applying Florida Energy Code Commercial Building Compliance Methods for HVAC systems and calculations for total building compliance (4 hrs) - engineers
- Understanding and applying Florida Energy Code Commercial Building Compliance Methods for lighting and electrical systems (2 hrs) - engineers

- Understanding and applying Florida Building and Fire Prevention Codes for sprinkler and standpipe design (4 hrs) - engineers
- Understanding and applying Florida Building and Fire Codes for fire alarm design (2 hrs) – engineers
- Training on electrical requirements of the energy code – Florida Building Commission
- ADA and plumbing contractors – Florida Building Commission

Some of these course subjects have been adopted as developed courses, but very few have been developed as the required advanced codes courses. As such, there is little that can be coordinated.

It appears that most providers are currently offering existing developed and approved advanced codes courses to allow licensees to fulfill this requirement. The focus is on ensuring that the licensee can complete the requirement in favor of expending time and money on creating advanced codes courses that cover the subjects tendered by the Council.

The market for advanced codes courses is finite and confined to the minimum requirements imposed by the respective licensing boards and the number of licensees required to complete this minimum required course.

An unintended consequence of adoption of the advanced codes course requirement is the length of time and significant burden that is required to take a course from development through the approval process. For example, an advanced codes course for which Construction Industry Licensing Board approval is needed requires review by staff from two state agencies and 52 volunteer board members (some are the same people serving on committees). In addition, the time for review from start to finish can easily take six months or longer.

With these limitations, the interest in developing a good variety of advanced codes courses is not great. Most providers cannot justify the expense and time to offer more than what is currently available for use, regardless of potential duplication or limitation of interest.

Instead, providers are choosing to develop courses that are greater than the minimum requirements. One may think that such courses could be approved to satisfy the requirements for advanced codes courses, but at least one licensing board will not accept anything but a course that fits exactly the scope and number of hours specified for the advanced codes course.

Proposal for Development of More Advanced Codes Courses

In order to encourage increased development of advanced codes courses, the following plan is proposed:

- Through the clearinghouse, target six or seven advanced codes courses for development each year. Select subjects intended to provide a course for each of the affected licensee categories.
- The clearinghouse seeks out course developers with expertise in developing codes courses and provides incentives and assistance (seed money, free promotions) that will lead to development of the proposed courses.

- Ensure that, once the advanced codes course (owned by the developer of it) is approved by the Florida Building Commission, it is then available for the sale of a license to any approved provider with no further review or approval needed from the Florida Building Commission.
- For courses that have already been approved through a licensing board, attempt to establish or secure a process for expedited approval of the same course for which another approved provider has obtained a license.

This proposal is already possible through the Florida Building Commission's system, but barriers are present with one or more of the licensing boards.

Proposal For Increasing the Number of Accreditors

An additional barrier to the development of more advanced codes courses is the limited number of accreditors available to review and accredit courses. It is believed that there are a few identifiable reasons for the small number of accreditors:

- Concern about the conflict between being an accreditor (limited source of income) and a provider (greater source of income) leads most of the interested parties away from becoming an accreditor.
- Lack of clear understanding of the duties of an accreditor.
- Lack of outreach to inform and encourage likely candidates to be accreditors.

The development of an outreach piece for dissemination to all affected licensee professional and trade associations is underway.

DRAFT WORK PLAN FOR EDUCATION AND TRAINING

In order to develop a draft work plan, surveys were conducted to determine the education and training needs for the audiences.

Surveys and Survey Recommendations

The education and training programs and processes for all design and construction industry entities should be evaluated for their effectiveness and efficiency. The following survey results reflect a variety of opinions within the industry concerning those education and training programs and processes.

Specifically, the groups surveyed included:

- Association member licensees (e.g., building officials, general contractors, architects, plumbers, etc.)
- Association staff (generally responsible for their respective association training programs)
- Training providers and accreditors
- Some Florida Building Commission commissioners, selected Florida Department of Business and Professional Regulation (DBPR), and selected Florida Department of Community Affairs (DCA) staff

Four different sets of survey questions were used. Appendix A was used with association member licensees. This survey was distributed at some annual

conferences and was placed on various association and association related websites. The results were sent either by fax or electronic mail to the surveyor. Appendix B was used with association staff members. These surveys were conducted by either telephone or electronic mail. Appendix C was used for training providers and/or accreditors. Some individuals for this survey were both provider and accreditor. These surveys were conducted either by telephone or face-to-face meeting. Appendix D was used to survey some Florida Building Commission commissioners and DCA and DBPR staff. These surveys were conducted either by telephone or face-to-face meeting.

The following recommendations and comments reflect what the surveyor felt were important from the information provided by the different groups. The descriptor "important" is defined by the intensity of the response or the number of times of the response.

Recommendations by Association Member Licensees

Licensees were asked if they knew where to find education and training information, specifically for license renewal. The majority answered by stating either the Internet or a specific association website. Some stated that sometimes the information was confusing or hard to find. It is recommended that associations, state agencies, providers, and interested others continue to use web-based technology to market and provide courses for licensees. However, all entities need to make these services as user friendly as possible.

Licensees stated that it would be beneficial if they could have a single resource to find training and education information. It is recommended that a single entity (to include a website) be identified to serve as a clearinghouse for all training and education related information. See Appendices E and F. The website could offer things like:

- Training provider links
- Association information and links
- State of Florida government (FBC, DBPR, DCA) information and links
- On-line information, explanations, and links about process (e.g., accreditation)
- License renewal information

The majority of licensees felt very strongly that much of the current course content they were being taught was stale, boring, and possibly out of date. They collectively said that they were tired "of the same old course content." There are probably two primary reasons that would explain the reaction of "stale and boring." One reason is that the content is indeed stale and boring. The other reason is that the actual delivery of the course is below standard. It is recommended that:

- Training providers develop new courses with better ways of approaching building code content (such as demonstrations and applications).

- Training providers seriously conduct course evaluations and adjust their course offering according to the evaluative feedback.
- Training providers ask (at some point require) that their actual course deliverers adhere to the “trainer” standards established by the American Society for Training and Development (ASTD).

Licensees were asked what training delivery method they preferred. The majority preferred the traditional method of instructor led courses, but web-based courses came in a strong second. The reasons for this, besides taking a course outside of business hours, are:

- Entity or company budgets are being cut and allowance for travel is reduced.
- Gas prices are still rising and travel is too expensive.

It is recommended that more web-based courses be developed, because of increased travel expenses and budget reductions. Also, it is recommended that more instructor led courses be offered at more locations around the state to reduce travel expense for many (attendees) in favor of travel expense for one (instructor).

Many licensees expressed an interest in attending courses that actually developed skill sets. They are saying that many of the current courses only give overviews of information, and this is not sufficient to instruct or reiterate any type of practical skill. It is recommended that providers, as part of their course curriculum, develop more hands on activities so there is a higher likelihood of practical application understanding.

Recommendations by Training Providers and Accreditors

Many of the providers stated their jobs and obligations would be much easier if the required processes (especially the Building Code Information System (BCIS) website) were more user friendly, more logical, and easier to understand. Some of those processes are:

- Buying a DCA course
- Having a course accredited
- Finding an accreditor
- Registering with DCA as a provider

Specifically, it is recommended that processes on the BCIS, such as having a course accredited, be streamlined to be more efficient. Many training providers want the entire accreditation process to be streamlined, specifically to reduce the amount of time it takes to have a course approved. Because the duty of accreditors is to work with the developer/provider, such improvements will assist accreditors to process courses more efficiently.

It is recommended that specific opportunities to change the BCIS website be identified, communicated to providers (perhaps by written or verbal survey), and the website be updated and/or modified to reflect those changes. It is noted that the Florida Building Commission has supported statutory changes

intended to improve the accreditation process, and this should be helpful to achieve improvements for providers.

Recommendations by Commissioners and State Agency Staff

When the Florida Building Code changes, licensees need training regarding those changes. It has been a trend that many providers do not offer this training until either right before the code change implementation date or right after the date. It is recommended that training providers update their courses in a timely fashion and offer needed training for code changes 30-60 days before the code implementation date.

Commissioners feel that the accreditation process is a necessary tool to uphold to some degree the integrity of advanced codes courses. Many feel very strongly about this, to the point that some would recommend that all continuing education courses should be subject to an accreditation process.

Of concern to some commissioners is the fact that accessibility standards have been changing at the federal level as the result of changing case law. According to some commissioners, there are some accessibility training programs that are not up-to-date. It is especially important that training programs relating to accessibility requirements be kept up-to-date. It is recommended that accessibility training programs be randomly audited to check for currency of information.

Workplan To Fill Identified Education and Training Gaps

The following is a draft plan of action to address the issue of how to systematically have a comprehensive array or listing of training and education programs for the members of the design and construction industries and/or how to fill a gap in needed education or training. Currently there are hundreds of private training providers (businesses and associations) operating in the State of Florida that offer courses to the various trade and professional groups. The design and construction industries are changing constantly, with new products, new technologies, and new code provisions. As a result of these changes, industry licensees need to have available current education and training. The current process of fulfilling existing and/or new education needs is haphazard at best. The following action plan steps represent a more systematic means to identify and fill education and training needs.

Step One

Training needs should be identified in a systematic manner. Currently training needs in the design and construction industries are identified many ways. Some trade and professional associations conduct a type of training needs assessment. Most training provider entities try to discover training needs in more informal ways, such as through course evaluations or discussions with licensees. Some training needs are identified based on the passage of legislation (state or federal), changes in code requirements, or identified problems or changes with installation requirements or performance standards. Some current

measures or perceptions of available training fail to consider available training beyond the minimum required by law, ignoring a large number of existing education and training that needs to be included in any determination of need. These informal, incomplete, and fragmented ways of identifying actual needs can be inefficient and ineffective. It is recommended that a comprehensive survey be administered by an entity that has contact with all design and construction associations and education providers and that such survey be conducted either annually or every two years to proactively identify respective education and training needs. This comprehensive survey must take into account all available approved licensee education and training.

Step Two

The results of the survey must be made available to the affected licensee regulatory boards and associations, so they can analyze the information, make any needed comments, and otherwise benefit from the information. This should prove a useful tool for all interested parties in planning for future education and training as well as knowing, rather than speculating, where more education and training is needed.

Step Three

With education and training needs identified, follow up research and discussion with providers should be done to determine whether existing courses can fulfill needs and whether there is interest in or ability for course development (and to avoid duplication of efforts). Most of the primary course providers and all of the trade and professional associations have developed websites that usually list offered courses. The survey results could prove to be an avenue to encourage sharing of available courses among providers to prevent duplication and preserve resources for development of a wider range of courses. If there is an identified need for which no course exists, the entity responsible for conducting the survey should communicate with one or more providers to inquire:

- Will a provider develop a new course?
- What are the criteria used by a provider for developing new courses?
- The provider's future plans for developing new courses?
- Under what conditions will the provider develop a new course?

Step Four

When a new course is developed, the provider should be encourage and have an easy and inexpensive (or free, if possible) way to advertise or notify of the availability and existence of the course. This is for two reasons: a) increased revenue for the developing provider; and b) notification that an identified need has been addressed.

Initiative for Remedial Education and Training

An aspect of education and training that has been given little or no attention is that needed for licensees who have been disciplined for failures

related to compliance with licensing or building code requirements. While at least one licensing board does require disciplined licensees to complete additional continuing education courses for remedial purposes, this is not generally a well defined or distinguished form of education and training.

Remedial education and training should be distinguished from continuing education in that remedial is intended to teach basics that are not needed for licensees who have not been found to have violated any law or rule.

It is recommended that further consideration be given to distinct definition and development of remedial education and training based on the most frequent code violations as determined by the M.E. Rinker, Sr. School of Building Construction, University of Florida study completed June 2006.

RECOMMENDED TOPICS FOR COURSE DEVELOPMENT

The following were identified in the survey as areas of need for course development. Some of the identified topics were specific to an identifiable trade, such as plumbing. Other topics could cut across several trade areas, be suitable for multiple licensee group application, and were identified as such in the survey. If a specific trade identified a topic, then that trade will be noted next to the topic.

- More variety of available Florida Building Code courses
- Florida specific extensive Accessibility Code
- ADA requirements for plumbing contractors (plumbing)
- Different types of roofing courses (e.g., roof truss inspection)
- Florida Energy Code
- How to build "green"
- Fire walls, fire doors, smoke detectors
- Area modification—Chapter 5
- Special use and occupancy---Chapter 4
- Egress---Chapter 10
- Foundation and soils classes
- Structural, non structural and MEP plan review (Florida Building Code)
- Reference documents (NFPA, ASTA) (building inspector)
- Coastal inspections (building inspector)
- Steel inspection (building inspector)
- Initial courses for plans reviewers and inspectors
- Building department management (building officials)
- Code administration
- Leadership
- Construction laws and rules
- Business law and insurance (general contractor and building inspector)
- Safety standards for live electrical parts (electrical contractors)
- Electrical requirements for the Energy Code (electrical contractors)
- Site and parking lot accessibility (general contractor and landscape architect)

- Lighting (site and energy conservation) (landscape architect)
- Outdoor type structures (arbors, shelters, etc.) (landscape architect)
- Roof gardens and green roofs (landscape architect)
- Understanding and applying Florida Building Code for facilities in the high-velocity hurricane zone (engineers)
- Understanding and applying Florida Energy Code Commercial Building Compliance Methods for HVAC systems and calculations for total building compliance (engineers)
- Understanding and applying Florida Energy Code Commercial Building Compliance methods for lighting and electrical systems
- Understanding and applying Florida Building and Fire Prevention Codes for sprinkler and standpipe design (engineers)
- Understanding and applying Florida Building and Fire Prevention Codes for fire alarm design (engineers)

CONCLUSION

There are significant gaps in education and training that can be addressed as follows:

- Bring together in one place all information relating to available and approved continuing education courses including all types of courses
- With all information gathered, determine if and where gaps exist
- Take steps to close the gaps
- Encourage interaction and sharing among education providers
- Address practical process problems for providers and licensees
- Address access problems for licensees
- Eliminate existing barriers to development of a greater number and variety of advanced codes courses
- Expand and adjust the available methods of delivery of courses
- Develop distinct structure and criteria for remedial courses
- Address timing conflicts and discrepancies that exist for continuing education

APPENDIX B

Condensed For Space Conservation

SURVEY: CONSTRUCTION INDUSTRY TRAINING & EDUCATION PROGRAMS

Name (Optional): _____ Date: _____

Organization/Company: _____

Position Title: _____

Client Groups Served (Name) _____

- 1.) How many courses do you offer your members?
- 2.) Do you have a list of offered courses that is accessible to your members? If yes, where?
- 3.) Can your members find the calendar of scheduled courses as well as a brief description of each? If yes, where?
- 4.) How are your courses marketed/advertised?
- 5.) Could your marketing efforts be done differently to get information out quicker or to a larger number of members? If yes, how?
- 6.) On an annual basis, approximately how many members attend your course offerings?
- 7.) Which forum (not training delivery method) does your membership prefer when attending required training courses (e.g., Annual conference)?
- 8.) Do you conduct a training needs assessment with your members to identify areas of course need? How? How often?
- 9.) Do your members have a current course need that is not being addressed?
- 10.) Do you develop courses in-house? If yes, who (by title) develops them?
- 11.) If courses are developed externally, how many vendors do you use?
- 12.) What are the major training delivery methods used for your member courses?
- 13.) Do your members prefer a specific training course delivery method? If yes, which one?
- 14.) Have your members asked for other delivery methods for taking training and education programs? If yes, what are they?
- 15.) What are the major issue(s) in your trade area of the construction industry?
- 16.) Would an education or training component help resolve those issue(s)? If yes, how?
- 17.) Given your professional experience, what is the one thing you think should happen which would strengthen training and education programs across the construction industry?

Note: Again, thank you for taking your time to respond to this survey. If you have any questions, please contact Michael Clark at 850.545.1451.

APPENDIX C

Condensed For Space Conservation

SURVEY: PROVIDER OF CONSTRUCTION INDUSTRY TRAINING & EDUCATION PROGRAMS

Name (Optional): _____ Date: _____

Organization/Company: _____

Client Groups Served (Name) _____

- 18.) What types of courses do you offer?
- 19.) Do you have a list of offered courses that is accessible to your customers? If yes, where?
- 20.) Can your members find a calendar of scheduled courses as well as a brief description of each? If yes, where?
- 21.) How do you market your courses? Is it effective?
- 22.) Which training delivery method do your customers prefer when scheduling one of your training courses?
- 23.) Do you conduct a training needs assessment with your customer groups to identify areas of course need? How? How often?
- 24.) How do you develop courses? For example, do you develop your own courses?
- 25.) Under what conditions will you develop a course? For example, will you develop a course only after receiving 25 phone calls/emails requesting a certain course? Please be specific.
- 26.) How would you change the current accreditation process?
- 27.) If the accreditation process were changed as you suggested in number 9, would you be willing to submit all of your CE courses (not just advanced) to be run through the accreditation process?
- 28.) Given your professional experience, what would you change about the current training and education processes? This includes any of the processes that go through the Florida Building Commission, the Department of Community Affairs, the Department of Business and Professional Regulation, and the various design and construction industry licensing boards.

ATTACHMENT D

SURVEY: FBC COMMISSIONER OF CONSTRUCTION INDUSTRY TRAINING & EDUCATION PROGRAMS

Name (Optional): _____ Date: _____

- 29.) From your experience, which training delivery method (E.g., Web based, instructor lead) do you think licensees prefer? Also, does your answer reflect all licensees, or one segment (E.g., General Contractors). Please indicate within your answer.
- 30.) Would you change the current accreditation process? If yes, how? Please be specific.
- 31.) Do you think that just advanced courses should be run through the accreditation process or that all CE courses should be?
- 32.) Should providers be incentivized in any way to develop courses before they will actually be needed, instead of developing them during the actual renewal cycle?
- 33.) Given your professional experience, what would you change about the current training and education processes? This includes any of the processes that go through the Florida Building Commission, the Department of Community Affairs, the Department of Business and Professional Regulation, and the various design and construction industry licensing boards.

BUILDING A SAFER FLORIDA

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Below, is a list of fact sheets that we currently have:

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- [Alternative Plans Review and Inspections \(Industry\)](#)
- [Certification programs](#)
- [Construction Defects: "Notice to Cure"](#)
- [Construction Mitigation Impact on Property Insurance Rates](#)
- [Disaster Preparation: Contractor Continuity of Operations](#)
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Please note: Updated address and other contact information is:

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Telephone: 850-222-2772 / Facsimile: 850-894-0502

E-mail address is correct as listed

BUILDING CODE EDUCATION AND OUTREACH COUNCIL STRUCTURE AND MEMBERSHIP

Please Note: The Building Codes Education and Outreach Council was repealed by the Florida Legislature in chapter 2007-187, Laws of Florida, now in effect. This information is provided for historical and other interest.

