OC 7:
ENHANCE CODE TRAINING FOR ARCHITECTS & ENGINEERS

Study
Proposal developed by the Steering Committee

Summary

Issue:
With the adoption of the 2008 New York City Construction Codes, along with regular revisions and the addition of new green provisions, the city’s building codes are continuously changing. It is important that the city informs building professionals of all code changes and ensures that training is provided so that practitioners can comply with new requirements.

Recommendation:
Develop a strategy to ensure that building professionals are aware of code changes and able to access training on the most current versions of the New York City Construction Codes. The Mayor’s Office began working with industry associations, including Urban Green, AIA New York, and ASHRAE New York, to develop training prior to issuance of this report.

Proposed Legislation, Rule or Study

The City should develop a strategy to create a standardized curriculum and delivery mechanisms for training architects, engineers, lighting designers, and design professionals on the New York City Construction Codes. In developing this strategy, the City should:

1. Work with professional societies representing design professionals;
2. Explore means to maximize participation and ensure knowledge of codes, including adding code training as a requirement for continuing education of existing designers, licensing for new designers, and for accreditation of architectural and engineering schools; and
3. Consider options for funding the development and delivery of this training.

Supporting Information

Issue – Expanded
Construction in New York City is governed by a large and complex set of codes and regulations. The Construction Codes include half a dozen books – the Building Code, Energy Code, Electrical Code, Mechanical Code, Fuel Gas Code, and Plumbing Code – that change regularly. Many other codes and regulations, such as the Zoning Resolution, also affect construction. Compliance with these numerous and complex laws is only possible if designers know what the laws say and keep abreast of changes to them.

Preliminary efforts are already underway to educate designers on the Energy Code, which the Department of Buildings began enforcing for the first time in 2009. At the request of the Office of the Mayor, the AIA New York Chapter, ASHRAE-NY and Urban Green Council assembled a group of speakers to train design professionals on the Energy Code. Each organization offered a 5-part training session that covered the content of the energy code, preparing submittals, and documenting compliance. These sessions were filled to capacity, indicating the tremendous demand for education on codes.

To further these initial efforts, this proposal recommends that the City work with professional societies to develop a standardized curriculum that can be offered regularly and revised as codes change, as well as explore mechanisms for delivery. It is also essential to consider options to maximize participation and ensure knowledge of codes, such as adding code training as a requirement of continuing education for designers to maintain their licenses, for the licensing exams of new designers, and for the accreditation of design schools. Finally, the experience from other cities indicates that funding is required for program development and delivery.

Environmental & Health Benefits
This proposal will enhance code compliance, achieving the range of environmental and health benefits addressed under the Construction Codes and other laws, including energy and water efficiency, indoor air quality, and stormwater reductions.
For the purposes of the Executive Summary, this proposal was found to have no significant positive environmental impact.

This proposal was found to have no significant positive health impact.

**Cost & Savings**
This proposal is for a study, which will have no direct impact on construction costs.

**Precedents**
The Task Force researched efforts to train architects and engineers in four cities regarded as leaders in green building: Chicago, San Francisco, Portland, and Seattle. Three of the four cities have extensive programs to train design professionals on compliance with energy codes, working with professional and non-profit organizations to deliver training. Some cities contribute to the funding of these programs, but most training funding comes from other sources, including from individual professionals paying a fee to attend programs. Chicago has leveraged the annual licensing program for engineers to implement a mandatory one-day class on energy conservation code.

The City of Chicago works with the International Code Council (ICC) to provide a one-day training class on the Chicago Energy Conservation Code for registered professional engineers and architects. Drawings submitted to the Building Department that are required to comply with the energy code must be signed by a “Registered Energy Professional” (REP). To become a REP, a licensed professional must complete the ICC class.¹

In San Francisco, the Pacific Energy Center (part of Pacific gas and Electric Company) offers educational programs (mostly focused on commercial buildings), free to the public, but targeting design, operation and construction professionals. These programs are primarily funded by a 3% surcharge on gas and electric bills. Significant additional resources come from university programs, union training, design professionals’ organizations and city-funded outreach.²

Portland’s Bureau of Planning and Sustainability has been working with other city bureaus to develop an implementation guide for the city’s green building policy.³

The AIA+2030 Professional Series in Seattle aims to help design professionals meet the energy efficiency goals of Seattle’s 2030 Challenge. Ten, 4-hour sessions offer strategies to reach 50% reduction in fossil fuel greenhouse gas emissions, with the goal of creating the next-generation of super-efficient buildings. Mostly technical in scope, the series also addresses project contract, relevant codes and management. Funding comes from the city of Seattle and Seattle City Light (a publicly-owned utility).⁴

**LEED**
There are no LEED credits affiliated with this proposal.

**Implementation & Market Availability**
There are no known implementation issues for this proposal.

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**ENDNOTES:**

¹ Interview with Elizabeth Scanlan, Director of Code Development, Dept. of Buildings, City of Chicago, IL. (Jan. 6, 2010); and Interview with Javier Ceballos, Mechanical Engineer, Energy and Sustainable Business, Dept. of the Environment, City of Chicago, IL. (Jan. 6, 2010).

² Interview with Barry Hooper, Private Sector Green Building Program Specialist, Dept. of the Environment, City of San Francisco, CA. (Jan. 21, 2010).

³ Interview with Vinh Mason, Policy Analyst, Bureau of Planning and Sustainability, City of Portland, OR. (Jan. 7, 2010).
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4 Interview with Janet Stephenson, Programs Director, Sustainability and 2030 Initiatives, Seattle Chapter, American Institute of Architects (Sept. 29, 2009).