OC 2: FULLY ENFORCE NYC’s CONSTRUCTION CODES

Study
Proposal developed by the Steering Committee

Summary

Issue:
Codes are increasingly viewed as an essential, low-cost strategy for achieving energy and carbon reduction targets. However, to be effective, codes must be enforced.

Recommendation:
Develop a strategy to achieve 90% code compliance citywide, and address known impediments to enforcement.

Proposed Legislation, Rule or Study

The Mayor’s Office of Long-Term Planning, in conjunction with the Department of Buildings, should undertake an analysis of code compliance. This analysis should determine the current level of code compliance, assess the resource requirements to enforce all provisions of the Energy Code and the provisions developed by the Green Codes Task Force, and develop a strategy to achieve 90% compliance with the New York City Construction Codes.

The analysis should consider the following issues and recommendations:

1. Issue: During the recent building boom, Department of Building staffing did not keep pace with the increase in building permits. In addition, Department of Building has begun enforcing the Energy Code for the first time, and does not have expertise on this code as well as the new code changes that may result from the Green Codes Task Force.

   Recommendations:
   A) Hire expert energy code technical authorities, reviewers and inspectors.
   B) Provide training for plan examiner staff on these codes.
   C) Provide training for Department of Building construction, plumbing and electrical inspectors.
   D) Consider increasing permit fees or structure the cost of building permit fees to increase as the number of permits increases, thereby enabling DOB to hire more staff in lockstep with its workload. The revenue from these increased fees should be dedicated specifically for DOB, rather than the city's general fund, to ensure they serve their intended purpose.

2. Issue: The Department of Building does not receive or review electrical drawings, although the Construction Codes require submission of every other discipline of the design drawings for a building. Since energy efficiency standards, including but not limited to the Energy Code, involve electrical work as well as mechanical and architectural, the coordination of energy compliance technical requirements and procedures is awkward. The separation of the Electrical Division from the Construction Division has no apparent rationale.

   Recommendation: Shift the Electrical Division into the Construction Division, which has longstanding experience with multidisciplinary administration and enforcement of the Codes.

3. Issue: Critical onsite inspections of construction work are currently undertaken by “special inspectors” who are authorized by the department yet paid for by the building owner. This system creates clear conflicts of interest for firms wishing to be hired again by an owner to undertake future special inspections or design work.

   Recommendation: Payments for special inspectors should either: (1) be used to increase department inspection staff, rather than hire outside inspectors; or (2) be deposited into a fund administered by the department, which would hire the special inspectors from an approved list.

4. Issue: Many building projects are “professionally certified” by architects or engineers for compliance with New York City’s zoning and construction laws. Department audits of these plans, however, regularly discover violations of the city’s construction laws. The Department is currently reviewing its self-certification program.

   Recommendation: Withdraw the professional certification authority of architects and engineers found to submit plans with significant violations of the city’s laws, including the energy code and other green codes.
Supporting Information

Issue – Expanded
Increasing the level of building and energy code compliance is increasingly seen as central to achieving New York City’s new sustainability goals as well as continuing to ensure health and safety. After all, codes are merely words on paper if no one complies with them. The U.S. Department of Energy regards energy code compliance as so important that it has made the awarding of energy stimulus grants to states contingent on achieving a 90% compliance rate. Similarly, the energy bills currently being considered by the U.S. Congress tie the receipt of energy dollars to achieving equally high documented energy code compliance rates. Some of these federal mandates have already trickled down to New York State as reflected in increased funding for code training and enforcement by NYSERDA and others.

Code compliance is an issue that also extends beyond the energy code. Concern about code enforcement was voiced by every technical committee and in almost every meeting with stakeholders.

There are two basic approaches to increasing compliance rates. First, one can improve the level of knowledge within the design and construction community. (Benjamin Franklin coined his aphorism, “An ounce of prevention is worth a pound of cure” in relation to fire-prevention.) California has taken this approach to energy code compliance for decades by providing training and resource centers, and it has achieved generally positive results. Second, there needs to be sufficient review, accountability, and repercussions on the back end to ensure that the codes are taken seriously.

Environmental & Health Benefits
Improving enforcement of the Construction Codes may lead to a broad range of unquantifiable environmental and health benefits including increased energy and water efficiency, reduced greenhouse gas emissions and air pollution, enhanced indoor air quality, and reduced stormwater runoff.

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 building department enforcement, internal training and funding practices in four cities regarded as leaders in green building: Chicago, San Francisco, Portland, and Seattle. All of these cities have training programs for permit staff, while only some have funding to also train field inspectors. All identified funding as a significant limitation on their enforcement capability since educating building permit and inspection staff requires money that is not usually part of building department budgets. When funding is lacking, some cities have provided permit examiners and field inspectors with checklists to help them track green code changes.

Chicago’s Department of the Environment has been training Building Department intake staff on new code requirements. They also provide reviewers with a Rescheck or Comcheck printout, a checklist for compliance. The department would like to increase staff because of the extra time required to review drawings and to extend training to building inspectors, which they see as necessary, but is constrained by funding.6

San Francisco’s Department of the Environment provides staff training for both permit reviewers and inspectors. This is funded by waste fees, a public benefit charge on utility bills (Pacific Gas and Electric, the local private sector gas and electric provider), and work orders from other city departments, including the Department of Building Inspection.3

Portland’s Bureau of Development Services, which includes building permit and inspection staff, is funded by permit fees alone. In accord with city bylaws, no further funding is possible. The current economic downturn has brought a 20% reduction in permit applications, but a 50% reduction in permit fees due to a more dramatic cutback in large-scale projects. Staff has been cut in half and field inspectors are limited to focusing on fire and safety issues.4

Seattle’s Sustainable Infrastructure and Energy Department trains Building Department reviewers in green techniques and processes as a part of job training. Due to lack of funds, it does not train field inspectors.5

LEED
There are no LEED credits affiliated with this proposal.

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

1 See Proposed Legislation, Rule or Study 4 (It will also be necessary to educate architects and engineers on the energy code and codes changes to ensure maximum compliance. Education is the subject of a separate recommendation: Professional Education and Code Training.)

2 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).

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

4 Interview with Vinh Mason, Policy Analyst, Bureau of Planning and Sustainability, City of Portland, OR. (Jan. 7, 2010).

5 Interview with Jayson Antonoff, Policy Advisor, Sustainable Infrastructure & Energy/Climate Change, Department of Planning & Development, City of Seattle, WA. (Jan. 7, 2010).