



Street Design and the Fire Code, 2012 and Beyond

Carl D. Wren



Background Information

Sections of the CNU Report on Fire Code Issues

- History of Fire Departments
- Fire Code Background / Current Codes
- CNU's Involvement
- Future Code Efforts
- Focus on Overall Risk and Life Safety
- Next Steps for CNU

History of Fire Departments

- History of Organized Fire Department Easily Traceable to the Late 17th Century – Boston (1670s) (Ref. 2)
- Para-Military Organizations
- Rank Structure and Chain of Command Important
- Various Ranks of Chief Officers
- “Fire Marshal” Often a Chief Officer Rank (not always)
- Plan Review and Daily Code Enforcement May be Done by FM or by Subordinates - Captains, Lieutenants, or Other Ranks or by Fire Protection Engineers in Larger Departments

Fire and Life Safety Codes

- Some of First Fire Safety Ordinances Established By Boston (1631) and New Orleans (1796) Ref. 1 and 2
- National Building Code in 1905 by an Organization that Would be the American Insurance Association. Ref. 1
- Building Exits Code, 1931, Precursor to the Life Safety Code, NFPA 101, Ref. 3
- Uniform Building Code, Southern Building Code, and National Building Code Followed in 1927, 1945, and 1950 Respectively Ref. 1
- Consensus Fire Codes More Common Since the 1970s

Current Fire Codes

- International Fire Code by the International Code Council, 2009 Edition (Ref 4)
- NFPA 1 Fire Code, National Fire Protection Association, 2009 Edition (Ref 5)

CNU/EPA Initiative

- First Contacted Fire Service Personnel in Late 2007
- Face to Face Discussions – Austin, Charlotte, Denver
- Developed Two Code Change Proposals
- Proposals Received Mixed Reviews During ICC Fire Code Committee Hearings in Baltimore
- Proposals Defeated During Final Action Hearings in Dallas
- An Unrelated Fire Service Proposal Was Approved
Could Require Fire Service Approval of all Traffic Calming Designs

Future Code Efforts

- Change Proposals Related to NFPA 1 Access Requirements
- Next Code Cycles Will Generate the 2015 editions of Both Fire Codes
- Need For Additional Collaboration
- Need For Additional Research
- Local and Regional Relationship Building

Focus on Overall Risk and Life Safety

- Fire Safety and Overall Community Risk Reduction
 - Factors Affecting Traffic Safety
 - Cardiovascular Health
 - Response Time Issues, Fire Development, Cardiac Arrest
- Realities of Current Emergency Vehicle Fleets
 - Apparatus Lifetimes, Reserve Apparatus, Costs of Replacement
- Litigation and Community Service Expectations
 - Can be 15 or More Rescue Scenarios, EMS, HazMat, Firefighting, General Public Service Calls
- Perhaps There is a Need for Broad Proactive/Prevention Efforts at Risk Reduction

Next Steps

- Relationship Building and Broader Collaboration With Multiple Fire Service Groups, Long Term and On-Going
- Participate in Functions of Code Organizations and Fire Service Organizations Including ICC, NFPA, IAFC, IAFF
- Research Impacts of Street Design on Traffic Safety, With Publication and Public Presentations
- Strive to Support Fire Apparatus Friendly Traffic Calming Whenever it is Possible
- Encourage Interaction With Fire Code Officials (or AHJs) Early in Project Schedules
- Search For Common Ground

References

1. America Burning, The Report of the National Commission on Fire Prevention and Control, Washington, D.C., May 4, 1973.
2. Fire Protection Handbook, 20th Edition, page 12-53 National Fire Protection Association, Quincy, MA, 2008
3. NFPA 101: LIFE SAFETY CODE®, Current Edition: 2009, National Fire Protection Association, Quincy, MA, 2009.
4. “International Fire Code”, 2009 Edition, International Code Council, Country Club Hills, IL 60478
5. NFPA 101: LIFE SAFETY CODE®, Current Edition: 2009, National Fire Protection Association, Quincy, MA, 2009