

DATE ISSUED: August 31, 2005

REPORT NO. 05-176

ATTENTION: Honorable Mayor and City Council
Docket of September 6, 2005

SUBJECT: Proposed Regulatory Revisions to the Building Regulations for
Buildings in Fire Hazard Areas

SUMMARY

Issue(s)

Should the City Council modify the Municipal Code to require additional fire resistant building materials, and fire and life-safety systems, for buildings and structures located within proximity of Hazardous Areas of Native or Naturalized Vegetation?

Manager's Recommendation(s)

Add a new Division 5 to Chapter 14 Article 5 of the Municipal Code to require additional fire resistant building materials and fire safety systems for buildings subjected to fire hazards from Hazardous Areas of Native or Naturalized Vegetation.

Land Use & Housing Committee Recommendation:

The committee voted 5-0 to approve the Manager's recommendation.

Other Recommendations

The Board of Building Appeals and Advisors: The Board of Building Appeals and Advisors approved the proposed code change package as submitted at their March 10, 2005 meeting and recommended that the Council adopt the proposed

amendments to the Building Regulations in the San Diego Municipal Code as proposed.

Technical Advisory Committee (TAC) of LU & H: TAC approved the proposed code change package as submitted at their March 9, 2005 meeting.

Sustainable Energy Advisory Board: The Board submitted a letter of support on March 10, 2005.

Fiscal Impact:

Administration of the Building and Fire Codes is based upon a fee for service paid for by applicants in the development process.

Housing Affordability Impact:

The proposed requirements will minimally impact the cost of housing since the proposed construction features are currently implemented as a part of current practice. The requirements do not prohibit the use of certain construction materials or practices; rather they impose limits on when and how they may be used.

BACKGROUND

On Monday January 20, 2004 the City Council heard a list of thirteen proposed revisions to the Building and Fire Regulations resulting from the Cedar Fire.

- The City Council approved the two roofing assembly items banning the use of wood shakes and shingles and requiring a Class A roofing assembly for all new roofs Citywide.
- The City Council returned the remaining eleven items for further study. The City Council also directed staff to seek input from affected parties and other stakeholders. The items were:
 - a) A sprinkler system requirement for buildings in fire hazard areas (these included single family dwelling projects);
 - b) Non-combustible roof coverings;
 - c) Exterior wall protection and prohibition of combustible exterior wall finishes;
 - d) Exterior glazed opening protection;
 - e) Boxed eave protection;
 - f) Ventilation opening protection and orientation limitation;
 - g) Spark arrestors on chimneys;
 - h) Skylight glazing to be non-combustible dual glazed glass;
 - i) Roof gutters and downspouts to be non-combustible;
 - j) Accessory structures such as fences, decks, play structures, etc., to be non-combustible or 1 hour rated; and

- k) Garage doors to be non-combustible.

The current proposal has been developed through an extensive outreach effort that involved key stakeholders including the Building Industry Association, the San Diego Chapter of the American Institute of Architects, a task group of the Technical Advisory Committee, the City Sustainable Energy Advisory Board, the San Diego Roofing Contractors Association as well as participation in the San Diego Regional Fire Prevention Emergency Preparedness Task Force -Fire/Building Code Sub Committee. A list of organizations contacted based on a wide outreach effort as well as letters of support are contained in Attachment 1.

The proposed changes are necessitated due to San Diego's topography, limited rainfall, exposure to Santa Ana conditions, and the vegetation of San Diego which combine to create areas with a high risk from wild fires. They are also based on an extensive review and evaluation of the following codes, methods and data:

- a) A review of nationally recognized codes including the 2003 International Urban-Wildland Interface Code;
- b) A review of regulations from other California jurisdictions such as the County of San Diego, City of Burbank and City of San Bernadino;
- c) Use of fire science and engineering judgment to calibrate the proposed regulations to issues unique to the topography, vegetation and size of the City of San Diego;
- d) A review of damage assessments collected by the Fire-Rescue Department;
- e) Reports and findings published on past wildland fires; and
- f) Lessons learned from the Cedar Fire and recommendations of the Fire Chief.

DISCUSSION

A new Division 5 is being proposed in Chapter 14 Article 5 of the Municipal Code. The requirements in Division 5 are intended to supplement the fire and life-safety protections required in the adopted building code.

The proposed fire resistant building materials and fire safety systems are intended to reduce the impact of combustible construction materials on the exterior portions of buildings, and to minimize the intrusion of embers into the building through exterior openings and attic ventilation openings.

The proposed regulations are designed for the unique exposure to buildings located immediately adjacent to brush management zones, and to all new construction within 300 feet, in any direction, of the boundary between brush management zones 1 and 2. The proposed regulations include the following specific elements:

- a) Protection of the plywood roof sheathing from ember intrusion under tile roofing and at the edges of roofs;
- b) Protected exterior wall construction and special protection for walls with combustible exterior wall coverings;

- c) Glazed doors and windows with dual pane glazing;
- d) Eaves to be protected with fire resistant materials or heavy timber construction;
- e) Exterior ventilation opening protection (limitation on eave ventilation location and size, and limitations on the size and orientation of attic ventilation openings) ;
- f) Spark arrestors on all chimneys and flues;
- g) Skylights glazed with dual pane glass;
- h) Non-combustible gutters and downspouts; and
- i) Non-combustible or heavy wood garage doors.

The proposed standards are intended to improve public safety and provide an economical level of protection when used in conjunction with the brush management requirements in the landscape regulations of Chapter 14 in the Municipal Code. The proposed defensible space required by brush management provides 100 feet of separation between buildings and the flame front from burning vegetation. The proposed building regulations are intended to limit the intrusion of burning brands and embers into concealed spaces or the building itself and thereby providing structural protection.

The City Manager recommends adoption of the proposed building regulations to improve the survivability of poorly protected buildings subjected to wild fires of adjacent Hazardous Areas of Native or Naturalized Vegetation.

ALTERNATIVE

Adopt some or none of the proposed changes to the Municipal Code for construction within proximity of Hazardous Areas of Native or Naturalized Vegetation.

Respectfully submitted,

Gary Halbert
Development Services Director

Approved: Ellen Oppenheim
Acting Deputy City Manager

OPPENHEIM /AMF

Note: The attachments are not available in electronic format. A copy for review is available in the Office of the City Clerk.

Attachments: 1. Outreach list and letters of support.
2. Ordinance