



**DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

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## **Wildfire Protection Building Construction "CBC 2010 CH7A" Task Force**

An Ad Hoc task force of the OSFM providing recommendations pertaining to exterior wildfire exposure provisions for the triennial adoption of the 2010 California Building Standards Code (see SFM pdf documents at the CBSC website [http://www.bsc.ca.gov/prpsd\\_chngs/pc\\_09\\_annual\\_cycle.htm](http://www.bsc.ca.gov/prpsd_chngs/pc_09_annual_cycle.htm)) including:

INITIAL EXPRESS TERMS JULY 2009 CODE ADVISORY COMMITTEE SUBMITTAL ([http://www.bsc.ca.gov/prpsd\\_chngs/2009CACReview.htm](http://www.bsc.ca.gov/prpsd_chngs/2009CACReview.htm))  
EXPRESS TERMS OCTOBER 2009 45-DAY COMMENT PERIOD SUBMITTAL ([http://www.bsc.ca.gov/prpsd\\_chngs/pc\\_09\\_comment.htm](http://www.bsc.ca.gov/prpsd_chngs/pc_09_comment.htm))  
FOR:

- **SFM** - California Building Code, Title 24 Part 2 "Express Terms" (**Ch 7A**)
- **SFM** - California Residential Code, Title 24 Part 2.5 Express Terms (**Sec R327**)
- **SFM** - California Fire Code, Title 24 Part 9 "Express Terms" (**Ch 49**)
- **SFM** - California Referenced Standards Code, Title 24 Part 12 "Express Terms" (**Ch 12-7A**)

# **TASK FORCE CO-CHAIR CONFERENCE CALL MINUTES September 9, 2009 8:00am – 9:30am**

### **Facilitators:**

Ethan Foote, Co-Chair  
Stuart Tom, Co-Chair

### **Members Present:**

Cal Lewis  
Joseph Mitchell  
Kevin Reinertson  
Mike Mentink  
Richard Weinert  
Steve Quarles  
Howard Stacey  
Kevin Scott  
John Sharp

### **Invited Guests:**

Dwayne Sloan (UL)  
Darren Drake (CalChief's NorCal FPO's)

**Staff:** None

### **Documents:**

Revised CH 7A Initial Express Terms, Draft incorporating BFO/CAC revisions ([Part-2\\_ET\\_Ch7A\\_pp47-58 DRAFT 20090902.doc](#))

Minutes from August 13, 2009 Conference Call ([Ch7A TF Minutes 13Aug09 ConfCall.pdf](#))

**Stakeholders/Interested Parties:** None

### **AGENDA:**

1. Introductions
2. Agenda Review
3. CBSC Timeline & TF Recommendation Due Dates
4. ET Discussion 706A Vents
5. Approval of August 13th Minutes
6. ET Discussion 703A Standards of Quality
7. ET Discussion 707A Exterior Coverings
8. Future TF Action on ET Recommendations
9. Future Action on "TF Report" to SFM
10. Next Meeting(s)

## **ACTION ITEMS:**

1. Minutes of August 13<sup>th</sup> conference call approved.
2. Deadline for changes to Initial Express Terms for the 45-day Express Terms extended to September 18<sup>th</sup>.
3. Full Task Force meeting proposed for the week of November 16<sup>th</sup>.
4. Formal Task Force recommendations to the SFM will include a vote on the recommended express terms and other recommendations (e.g. how to handle "parking lot" issues) as Task Force members have the resources to contribute.

## **DISCUSSION:**

The conference call commenced promptly at 0800 as scheduled. Co-Chair Ethan Foote took role to confirm attendance and discussed the timeline for completing work. Kevin Reinertson confirmed that the 45-Day Comment Period commences October 2, 2009 (see the CBSC website for updates [http://www.bsc.ca.gov/prpsd\\_chngs/pc\\_09\\_comment.htm](http://www.bsc.ca.gov/prpsd_chngs/pc_09_comment.htm) ). Since the 45-Day Comment Period was pushed back, Kevin will not need the Task Force's final package until September 18<sup>th</sup>. This will afford the Task force sufficient time to complete any minor changes that are necessary, but this also means that there will be no time to handle any substantive changes later. Consequently, Kevin advised the Task Force that all revisions must be completed by September 18<sup>th</sup>.

Kevin continued with a brief discussion of the activities that will follow submission of the final draft on September 18<sup>th</sup>. OSFM will wrap up the entire Express Terms rule making package and will print copies and burn CD's by September 28<sup>th</sup>. After the 45-Day Comment Period has concluded, responses will be prepared to any comments received. The Final package will then be sent to the Building Standards Commission for adoption, and then gets sent to the publishers.

Richard, Kevin and Ethan briefly discussed whether the 45-Day Comment Period considered "working days" or "calendar days". Although HCD appears to observe "working days", Kevin indicated that the BSC considers calendar days. The need to consider non-working days (including furlough days) would have a substantial impact on the duration of time that comments could be filed. Pursuant to Kevin's direction, the Task Force will consider calendar days in determining the termination of the 45-Day Comment Period which the Building Standards Commission has posted as November 16<sup>th</sup>.

At this time, Stuart Tom provided a brief summary of the August 13<sup>th</sup> conference call and minutes. The purpose of the conference call was to enable the Co-Chairs and the Task Force Vent Working Team leader (Cal Lewis) to discuss the comments that had been submitted during the BFO/CAC meeting within the initial 10-day period OSFM had to incorporate comment issues into the 45-Day Express Terms. Stuart indicated that the bulk of the comments were focused on Section 706A pertaining to under-eave vents, including several comments submitted by Rick Thornberry. Additionally, comments had been made by Laura Blaul that expressed some concern regarding accessory structures.

Stuart described the actions taken by the August 13<sup>th</sup> conference call participants, including the lengthy consideration of the under-eave vent comments. To ensure that the Chapter 7A Express

Terms had not strayed from the recommendations agreed upon by the Task Force, the August 13<sup>th</sup> conference call included a poll which provided unanimous confirmation that after all issues had been discussed, the under-eave vent provisions reflected the Task Force's recommendation. Stuart reiterated Don Oaks' statement that throughout the development of the under-eave vent provisions that he had articulated various concerns, but in the end he fully accepted the recommendations. Don had also confirmed the unanimous support during the August 13<sup>th</sup> conference call.

Stuart concluded by informing the Task Force that Roland Crawford had contacted him earlier to inform him that he would not be able to participate in the conference call. Roland indicated that he felt 98% of the Final Draft of the Chapter 7A Express Terms was "ready to go" but he still had a concern regarding the under-eave vents. Cal Lewis asked if Roland identified what his concern was, and Stuart indicated that Roland felt that the acceptance of any wire mesh (including 1/16"-1/8") would be a "step backwards" from the proprietary vents that Roland believes will stop all flames and embers.

Kevin Scott asked if the Final Draft eliminates proprietary vents; several Task Force members responded that they would still be allowed. Stuart indicated that individual builders and/or insurance companies that desire the use of tested vent assemblies can still choose that option.

Ethan stated that the Final Draft actually makes the use of wire mesh stricter for all vents, including dormer-vents, ridge-vents, gable-vents, etc. The reduction in maximum mesh size from 1/4" to 1/8" is not restricted to under-eave application; it applies to all vents. Ethan discussed the under-eave location and indicated that the task force subject matter experts were not able to provide any substantiation supporting the conventional wisdom that eave vents posed a greater hazard than vents in other locations (see August 13<sup>th</sup> minutes). While some individuals have expressed a concern that turbulent recirculation of air may provide more opportunities for embers to enter a vent opening, there does not appear to be any scientific evidence that this actually occurs.

Richard Weinart asked if the focus had shifted away from flames. In particular, he raised questions regarding shrubbery or other features that could support flames under building eaves. Ethan stated that an underlying principle of Chapter 7A, going back to Chiefs Grijalva and Dargan, is that reasonable and cost effective wildfire protection building construction is dependant on adequate Defensible Space and that proper vegetation management has been accomplished. This message had been supported by subject matter experts from the previous UWIBS Advisory Committee and this Task Force, and remains a fundamental precept. If proper vegetation management is not provided and a wall of flames hits the building, numerous features in the building envelop, such as window, will very likely fail regardless of ember and/or flame intrusion through vents.

Ethan reminded the group that the general vent requirements in the proposed Initial Express Terms are stronger than the existing code. The concerns expressed are about the exception allowing vents in eaves for buildings with ignition resistant or noncombustible wall covering and eave protection. The rationale supporting the exception is that the reduced vent opening size (1/16<sup>th</sup> " to 1/8<sup>th</sup> ") provides adequate protection for ember intrusion and that the hazard of flame intrusion is adequately mitigated by, for example, stucco walls. Ethan noted that OSFM appears to be the only enforcing agency that requires a fire test lab report from vent manufacturers

requesting products be accepted by OSFM for use in eave locations. In reviewing the proprietary test lab reports he observed that some vent designs relied heavily or entirely upon small size wire mesh screens to achieve ember intrusion protection and that such screens alone should provide a similar level of protection for ember intrusion. Ethan asked if the test labs had any disagreement with this observation. There was no disagreement expressed.

Howard Stacey made a closing comment that applauded research done by Steve Quarles that indicated that ember size is an important consideration. Just because an ember is small enough to pass through a finer mesh does not mean that it will result in ignition. The smaller ember size generated less heat and is not likely to cause ignition.

A question was raised regarding the need to "armor" the undersides of eave projections as required in Section 707A. The subject of "aggressive flames" and the effectiveness of stucco and other IRM finishes on exterior walls ensued. It was explained that the rationale for eave protection from direct flame exposure is the same as it is for eave vents and stems from the possibility of the exterior wall burning. Untreated wood siding and wood shingles can pass the wall test standard and a burning wall is the primary reason for the eave protection.

After all discussion of the August 13<sup>th</sup> minutes concluded, Ethan asked if there were any changes. Cal Lewis moved approval as written; seconded by Mike Mentink. Hearing no objection, Ethan accepted the minutes.

Ethan moved forward with a discussion of Section 703A. Howard expressed a concern regarding Section 703A.2, pertaining to the phrase: "... listing agency ...". He pointed out that several testing agencies do not "list" anything. Kevin Scott stated that ICC has received requests from some vent manufacturers to go through the ICC Evaluation Services process. Stuart stated that he concurred that the second sentence of Section 703A.2 did not appear to be necessary to carry out the intent of the code. After further discussion, the Task Force agreed to keep the first and third sentences of Section 703A.2, but to delete the second sentence.

A discussion was held regarding a number of changes in the Final Draft that were necessitated by comments received during the BFO/CAC meeting. In particular, Ethan addressed an inadvertent omission of underfloor protection provision for enclosing the exposed area to grade that exists in the current Chapter 7A standards. These provisions have been added back to include an option of extending the exterior wall finish of overhanging buildings down to grade and is an example of the sort of changes we need to look for in the current revised Initial Express Terms. To facilitate review by the Task Force members, Ethan had highlighted the Final Draft in blue. The Task Force reviewed the additional language and concurred that it should not have been omitted from the current provisions.

Ethan stated he had gone back over previous Ch7A customer service issues and found several additional code compliance issues that have been addressed in the revised 707A section including:

- Gable eaves.
- Sloping vs. horizontal eave soffits.
- 12-7A-3 eave test application to sloping eaves.
- Inconsistent application of test standards between horizontal soffits (12-7A-3) and horizontal floor protection (12-7A-1) which have similar exposure hazard.

- Protection of exterior porch ceilings.

A lengthy discussion regarding the difference in eave locations ensued. He differentiated between eaves located at the "over-hanging" rafter-tails at the bottom of a sloped roof surface, as compared to eaves "projecting horizontally beyond the exterior wall at the gable end" of a structure. Stuart confirmed that this was an important issue, and that absent a clear differentiation, local building officials would impose the under-eave vent & construction standards to all eaves (including gable-eaves). Ethan asked the committee to confirm whether the intent was to differentiate between such types of eaves and to confirm whether the additional protective standards for under-eave vents and for soffit protection was intended to apply only to horizontal eave projections. The Task Force confirmed.

Ethan concluded the eave & soffit discussion by addressing cantilevered building construction. The Task Force agreed that a horizontal projection (overhang) of a building presents the same exposure as an overhanging eave soffit. Therefore, the construction standards would be applicable. Ethan indicated that using proper language to collectively refer to all horizontal building projections would address the issue. The Task Force agreed.

Joe Mitchell commented that various portions of Section 707A utilize repetitious language. He stated that although the language accurately prescribes the requirements, the repetitious nature may cause a "maintenance problem" in the future if revisions are necessary. Ethan acknowledged the "maintenance problem" but indicated that for the purposes of the Final Draft we will have to move forward. Perhaps during a future revision cycle the repetitious language can be consolidated.

Howard asked that consideration be given to renaming test standard 12-7A-3. Rather than "Under Eave", the test standards should clearly indicate that it is applicable to all horizontal projection locations including soffits. Howard proposed "Under Soffit" instead. Cal agreed that the test standard name should be comprehensive, and suggested "Under Horizontal" to which Howard proposed "Under Horizontal Projection". The Task Force agreed that the latter designation was more appropriate. Stuart concurred, but suggested that a hyphen be added as follows: "Under Horizontal-Projection". Suggested that a follow-up discussion with the three Task Force members could adequately designate an appropriate name for 12-7A-3, and the Task Force concurred.

Ethan shifted the discussion to the BFO/CAC comment regarding accessory structures. He asked the Task Force to refer to the revised language (which had been highlighted in yellow) of Section 710A. He identified the issue and discussed how the section had been rewritten to address the concern raised by Laura Blaul. Cal indicated that in Section 703A.7, the kilowatt intensity had not been inserted, and Ethan indicated that the same kW intensity from the test standards would be inserted. After reviewing the revised language of 710A, the Task Force agreed that the revised language was acceptable. To ensure adequate time for review, Ethan indicated that if any Task Force members had any comments regarding accessory structures, that they should forward the comments to him prior to September 18<sup>th</sup> so he could integrate them prior to submitting the Final Draft to Kevin Reinertson.

Ethan concluded the conference call by asking the Task Force members their thoughts regarding the production of a "formal" report. He alluded to a summary report that had been submitted to the State Fire Marshal by the Residential Sprinkler Task Force

(<http://osfm.fire.ca.gov/pdf/firemarshal/taskforcefinalreport.pdf> ). Stuart acknowledged that the Sprinkler Task Force had produced a very impressive report, but he also acknowledged that the Chapter 7A Task Force did not have nearly the same level of resources or industry support to produce such a package. Instead, Stuart proposed the following minimum action by the Task Force, in order to provide Chief Hoover the basis for OSFM to move forward with Chapter 7A:

- 1) A formal vote should be recorded to acknowledge the support of the Task Force members in supporting the Final Draft.
- 2) During or after the 45-Day comment period (when there is more time) an "after-action summary report" should be prepared to describe in detail the activities of the committee. The report should include Task Force recommendations stemming from the parking lot issues, the duration of the Task Force's efforts, the number of meetings held, the number of conference calls, the open stake holder's meetings and participation, the response to comments before and after the BFO/CAC, and revisions made prior to official submission for the 45-day comment period, etc., etc.

The Task Force agreed with the recommendation. Cal offered a further suggestion that a "minority statement" be included in the report, where appropriate, to accurately reflect that in one or more instances unanimous support may not have been reached. TO accomplish this, he suggested that the formal vote include an opportunity for each Task Force member to indicate whether they are in 100% support of the Final Draft. As an option, they could provide an affirmative vote, with a comment. The comment would serve as the basis for documenting any "minority statements". The Task Force unanimously agreed that Cal's suggestion was the best way to accurately reflect the actual Task Force support of the final package.

The conference call concluded at approximately 0930.

**QUESTIONS:** Please contact the task force co-chairs:

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