



Guideline for Alternate Materials & Methods (AM&M) Requests



This guideline is intended to provide direction for submitting requests for use of alternative materials and methods (AM&M) often referred to as performance based design.

Requests for alternative materials and methods shall be evaluated by the appropriate fire jurisdiction staff or representative to ensure the proposed design, use, or operation satisfactorily complies with the intent of the International Fire Code (IFC) including locally adopted amendments and that the method of work performed or operation is, for the purpose intended, at least equivalent to that prescribed in the IFC in quality, strength, effectiveness, fire resistance, durability, or safety.

General Requirements

The applicant shall provide the following information, in writing, with those plans necessary to evaluate the project:

- I. Identify relevant project information:
 - a. The project name, address, contact person and phone number
 - b. The owner's name, address, and phone number
 - c. Other specific information identifying the project may be required (i.e.
 - i. development permit type, tract and lot number, etc.)
- II. Identify the code section or reference the specific requirement for which the modification is requested (e.g., 2003 IFC 503.2.1, Dimensions of Fire Access Roads).
- III. Detail the alternative fire protection measures that will comprise the AM&M proposal and how they establish equivalency to those prescribed in the code.
 - a. *The report shall address the fire jurisdictions concerns and the issues as identified above. Refer to the sample AM&M proposal letter provided at the end of this document for guidance.*

Engineering Evaluation

If the Fire Chief, or established designee, deems an engineering evaluation necessary, it shall be performed and reported by a firm or individual that has been approved by the Fire Chief.

All costs associated with the preparation of the AM&M shall be borne by the applicant.



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Submittal Process

- I. Submit three copies of both the AM&M request letter and other supporting information to the appropriate fire jurisdiction.
- II. AM&M requests will be evaluated by the fire jurisdiction plan review staff or designee for equivalency to adopted codes and standards. All such requests are evaluated on a case-by-case basis. Approval of the request is based upon several factors, including, but not limited to: the level of equivalency achieved (as described under "Scope" in this guideline), the effect of the AM&M on fire and emergency response, and site conditions. All evaluations will be performed in the context of the specific project being reviewed.
- III. If the AM&M proposal provides an equivalent level of protection considering all related conditions pertaining to the project, the Fire Chief of designee will issue a response letter granting approval. Such approval may be conditional upon implementation of additional requirements listed in the AM&M response letter that were not part of the original AM&M proposal. Approval is granted only for the specific project under review and the conditions for approval shall not be construed as applicable to any other project.
- IV. In the event that the AM&M proposal does not provide an equivalent level of protection, the request will be denied and a response letter will be issued to this effect. Should the applicant submit a different AM&M request for this project or choose to revise and resubmit the previously denied request, additional AM&M fees will be collected. To facilitate the evaluation process, include any previously denied AM&M proposals when submitting a revised AM&M request.
- V. Upon completion of the evaluation, the AM&M response letter and a copy of the applicant's AM&M proposal will be available to be picked up at the applicable fire department. Should evaluation of the AM&M proposal require time and resources beyond the standard allotted for this activity, additional time and materials fees may be applied. These additional fees must be paid when the applicant picks up the AM&M response letter.
- VI. The approved AM&M request and response letters must be red-lined on the plans prior to plan approval. Retain a copy of the AM&M proposal and response at the project site at all times. This documentation may be required for review by fire review/inspection staff.



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SAMPLE AM&M PROPOSAL LETTER

April 6, 2005
John Doe, Fire Marshal
Werescue Fire Protection District
PO Box 11
Beautiful, CO 80117

**SUBJECT: AM&M Proposal for the Cleaver Residence
AM&M Service Request Number 2006-120**

Dear Fire Marshal John Doe:

I am requesting an alternate method of fire protection for the proposed project detailed below. This is in response to items 3, 4, and 6 on the February 14, 2003 correction letter for the residential site plan submitted under Service Request #104543.

PROJECT INFORMATION

Project:

New Cleaver Residence
9867 Greener Grass View
Summit City, CO 94403
Tract 16275, Lot 13 805-555-2468
Brighter Future Subdivision, Filing No. 2

Owner:

Ward Cleaver
1234 Sunset Road
Summit City, CO 94403

Requestors Contact Information:

T. Charles Smith, PE
376 Main Street
Summit City, CO 94401
714-555-4567

PROPOSAL

The proposed residence is located in the Brighter Future Subdivision. The building pad is located on the top of a graded hilltop approximately 115 feet above street access at Western Road. The maximum driveway grade is 19.7% and the driveway length is approximately 250 feet. This property is

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located within the Werescue Fire Protection District and is subject to fuel modification requirements. The residence and detached garage will be fully fire sprinklered accordingly. The existing topography of the project site precludes compliance with the 2003 International Fire Code as amended by the Werescue Fire Protection District for a maximum roadway grade of 10% for sprinklered buildings and a minimum driveway width of 24 feet for homes located in the designated Wildland/urban interface.

Use of the driveway grade limit would require the proposed hilltop building pad to be lowered approximately 85 feet. Widening the road to 24 feet would require retaining walls 30 feet in height. I would like to propose the following alternative methods and materials:

1. Construct a 20-foot wide driveway from Western Road to the residence and provide a flat 20-foot by 60-foot turnout on the driveway. Both will be paved with an all-weather surface and be capable of supporting HS-20 loading.
2. Extend the required distance of fuels mitigation an additional 100-foot from the structure.
3. Provide an approved water flow monitoring system for the sprinklers serving the structure.

JUSTIFICATION

1. The turnout on the road will allow fire trucks to pass each other safely and facilitate evacuation of the residents by providing a clear path to and from Western Road. It will also provide a location to stage emergency response vehicles in the event of a fire.
2. Extension of the fuel modification areas past the minimum widths would impede the advance of a wildland fire and further enhance protection of the structure beyond those design elements already required by Werescue Fire Protection District.
3. The monitoring system, not normally required for a sprinkler system of the size needed to protect these structures, will improve the response time of emergency personnel and help offset the delay caused by the steep grade of the driveway.



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ADDITIONAL COMMENTS

We appreciate your consideration of this proposal. Should you find that the proposed items provide an equivalent level of protection to that required by Werescue Fire Protection District, I will submit a revised site and fuel modification plan. If you have any questions regarding this AM&M proposal or the New Clever Residence project in general, please do not hesitate to contact me at 284-777-9846.