



Use of Sprinkler to Mitigate Required Fire Ratings Up to 1-Hr

Under the 2001 CBC, and earlier, the building codes were based on the UBC promulgated by ICBO. The City of San Jose has previously allowed, on a case by case basis through the application of alternate methods and materials, the use of sprinkler systems to mitigate required fire resistive construction. With the adoption of the 2007 CBC, the basis of the building codes moves to the IBC printed by ICC. The City of San Jose determined that the past practice was not compatible with the increases allowed by the ICC when compared to the UBC. Therefore, the City of San Jose Building and Fire Departments will limit the situations where an application for alternate method of construction will be considered as shown in the following table.

REFERENCE

2016 California Building Code (CBC)

DEFINITIONS

Water Curtain: The use of many close spaced sprinkler heads, typically quick response, to provide a curtain of water.

Water Impinged Wall (WIW): The use of a sprinkler head to wet a surface, such as a glass. If approved for use, shall be by the Fire Department standards and restrictions

	<i>Alternate Method/Material</i>	<i>Allowed?</i>
1.	Water curtain in lieu of a required fire rated wall, exterior or interior	P
2.	Water curtain in lieu of a required protected opening	P
3	Water impinged wall on an exterior surface where protection of opening is required due to: <ul style="list-style-type: none"> a. distance to property line b. proximity to unprotected openings of a stairway c. Either (a) or (b) for existing portions of a building built under the UBC where there is a conflict with the IBC 	P* P Case by case
4.	Water impinged wall on an interior surface where protection of openings is required <ul style="list-style-type: none"> a. Corridor b. Fire wall (ASW) c. Fire barrier (Occupancy Separation) d. Fire partition (Tenant separation) e. Smoke barrier f. Smoke partition 	Case by case P P Case by case Case by case P
5.	Other	Case by case

P - Performance approach is required for justification.

*The exception to CBC 705.8.2 specifically allows the use of a water impinged wall on exterior openings so an AMMC is not required. However, per Table 705.8, the allowable area for protected openings is the same percentage of opening area as those in buildings protected by an NFPA 13 system. Opening area larger than that permitted by table 705.8 will not be allowed with additional protection. As a result, this exception would only be applicable to existing buildings protected by a 13-R system, or only partially sprinklered, which are no longer allowed. A 13-D system does not have the capacity to protect windows.

Additionally, sprinklers cannot be used to mitigate any required rating greater than 1-hr.

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