

Quality Notes

Pepper 071000 AVB & Fireproofed Steel – 01a 01-16-2024



Fireproofing, either Spray Fire Resistive Materials (SFRM) or Intumescent Fire Resistive Materials (IFRM), is <u>not a suitable substrate</u> for air/vapor barrier or Spray Polyurethane Foam (SPF) insulation.

This fact creates a challenging condition for the continuity of the AVB or SPF system(s) when fireproofed structural steel extends out of the exterior wall (line of AVB). The team will need to address how the air/vapor barrier (AVB) or SPF will be continuous.



The AVB & SPF cannot be installed on or under fireproofing because it is not a proper substrate as indicated by AVB manufacturers, and has not been fire tested to be on top, and cannot achieve the adequate pull-off strength.



So, if the soffit has fireproofed steel, the team must be able to continue the AVB...somehow...

A solution is to install a secondary soffit to create a proper substrate.

Fireproof manufacturers have not tested their products to meet the air barrier requirements.

UL has stated, "Unless otherwise noted in the individual design or certification published in UL's Online Certifications Directory, the application of SPF or other insulation over Sprayed Fire Resistive Materials (SFRM) or Intumescent Fire Resistive Materials (IRFM) costing has not been investigated...which according to FCIA, "When UL states it has not been investigated, it likely means that there is no data to prove that the assembly will perform under fire conditions.



When we have this design, we must ensure we have a solution to the AVB or SPF continuation challenge, which will likely include a soffit or a secondary soffit above the architectural soffit.

Make sure that the GC and architect plan for this construction.

