

Firestop Engineering Judgments (Technical Evaluations¹) are not Intended to be as-built or coordination drawings



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Summary: Expectations for Engineering Judgment (EJ) Drawings and Details

- Details are schematic and representative
- Adjacent construction elements *not affecting firestop system performance* may be, and should preferably be omitted.
- The contractor remains responsible for means, methods, sequencing, and constructability.
- EJs are intended to document the specific details that must all be complied with to achieve the indicated firestop system performance, not document every surrounding condition.

Discussion

There is an increased incidence of Engineering Judgment (EJ) requests and revisions that are unnecessarily drifting toward as-built or coordination documentation. This position paper is intended to set expectations and reinforce the proper role, scope, and intent of firestop Engineering Judgments.

What an Engineering Judgment Is

An Engineering Judgment is a technical evaluation that:

- Addresses specific firestop performance considerations
- Is based on tested systems, engineering principles, and applicable guidance
- Provides schematic and representative details, not as-built construction documents

¹ The term “Technical Evaluations” has been adopted by UL Solutions, and by an increasing number of firestop manufacturers, to reference the documents that have been historically referred to as “Engineering Judgments”. The two terms are intended to represent the same concept and documents. The term “Engineering Judgment”, abbreviated “EJ”, is used throughout this document for brevity.

What an Engineering Judgment should *Not* be, and why

Engineering Judgments are not intended to function as as-built or coordination drawings.

Firestop Engineering Judgments are not intended to provide an evaluation, interpretation or declaration of the code compliance of the construction shown beyond the firestopping. For example, the following details might or might not be code-compliant as implemented on a specific project, but are typically shown (detailed) as part of an EJ. Those details are provided to the EJ issuer by the contractor or other interested party seeking the EJ. They are not decided, engineered nor specified by the EJ issuer.

- The hourly rating of the assembly receiving the penetration or joint firestopping
- Fire and/or smoke dampers and their type, or lack of dampers, in a duct being firestopped
- The code requirement for a T-rating (or not) for the firestopping shown
- The selection of a fire partition, fire barrier, smoke barrier, or fire wall as the rated assembly that is receiving the firestopping.
- Construction details of a curtain wall to meet applicable code requirements other than *interior* fire spread, such as *exterior* fire spread, energy efficiency, wind resistance, etc.

The details above are the responsibility of the Registered Design Professional for the construction in question and are not investigated or specified by the EJ issuer.

When EJs are requested to add details that have no materially significant impact on fire performance of the firestop system, such a request is likely to result in negative impacts on construction:

- Increases cost of the firestopping process by increasing costs associated with needed engineering judgments
- Incorrectly adjusts expectations of AHJs, designers and contractors to misuse firestop Engineering Judgments
- Creates implied liability for conditions that were never evaluated with respect to fire performance
- Potentially delays EJ submittal, approval and construction activities
- Artificially adds unneeded details that a firestop special inspector would feel compelled to verify and report, adding time and costs to the inspection process

When Additional Detail *Is* Appropriate

Additional information or detail should typically only be included when it materially impacts firestop performance, such as:

- Opening size, joint width or geometry affecting firestop solution
- Substrate type, thickness, fire resistance rating (including listing number) or construction details affecting system selection
- Penetrant or joint characteristics affecting thermal or movement behavior

Including details beyond this threshold does not improve EJ quality and often increases revision cycles without improving field outcomes.

A limited exception to the guidance above may apply when architectural curtain wall drawings are used as the base reference for a perimeter fire containment Engineering Judgment. In these cases:

- The original architectural detail may be retained for context, and
- The EJ must clearly and explicitly identify only the additions or modifications required for the assembly to achieve the claimed fire rating if tested in accordance with ASTM E2307 (or other applicable national standard).

Even in this scenario, the EJ does not validate the full architectural assembly and should remain focused on the firestop system performance being evaluated.

Why This Matters

Engineering Judgments are a shared engineering resource. Protecting their intended use:

- Improves turnaround times
- Reduces revisions
- Preserves technical rigor
- Ensures EJs remain defensible, scalable, and aligned with industry guidance

This discipline benefits contractors, designers, and authorities having jurisdiction by keeping EJs focused on what they are designed to do: evaluate firestop performance; not document construction.

Bottom Line

If a construction detail does not materially affect firestop system performance, it should normally be avoided in an Engineering Judgment.

EJs should be engineering tools that communicate the critical components of a penetration or joint firestop system. They should not drift towards being as-built drawings.

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