SECTION 07841

THROUGH-PENETRATION FIRESTOP SYSTEMS

PART 1 - DESIGN DIRECTIVE

1.1 SUMMARY

A. It is the responsibility of the architect to clearly define the barriers that are fire rated. This should be indicated on a separate plan indicating the time rating of the separation.

B. Each consultant shall consider typical penetrations and provide details that are project specific citing UL or FM tested assemblies. Specific firestopping methods shall also be cited on the drawings, Hilti fastening systems shall be the basis of design.

PART 2 - PRODUCTS

2.1 The firestopping material of a single manufacturer shall be used throughout the project.

A. Hilti systems shall be the basis of design. Other manufacturers may be submitted providing there are tests performed by an independent nationally recognized testing facility, such as UL Laboratories.
   1. 3M Fire Protection Products

PART 3 - EXECUTION

3.1 QUALITY ASSURANCE

A. The general contractor / construction manager is ultimately responsible for all firestopping penetrations whether performed by their own forces or their subcontractors.

B. The manufacturer representative shall be engaged by the general contractor to provide an on-site training session for the project. This shall be performed at the beginning of the project. A permanent record of attendees shall be maintained. Multiple sessions may be required to insure all installing contractors have attended the training session.
   1. The involvement of the manufacturer's representative is somewhat proportional to the size of the project. It is unreasonable to require a manufacturer to provide training for every project. However, regardless of project size, contractors installing firestopping must be trained in the importance of proper installation techniques. If recent training has taken place on similar projects the requirement for on-site training may be waived. Otherwise, training shall be required.

C. Each contractor shall review the various conditions that may be encountered on the project. These conditions shall be reviewed by the firestop supplier to provide to enable the supplier to apply the appropriate UL tested assembly.

D. Where a tested assembly is not applicable to a specific situation, an engineering judgment may be offered by the manufacturer provided the proposed system is stamped by a professional New Hampshire engineer.

1. The requirements noted in section 15050, BASIC MECHANICAL MATERIALS AND METHODS, relative to sleeves through separations may be eliminated and overruled by an approved assembly.

E. Each firestop assembly must be inspected by the building inspector or his project specific appointee. The project specific appointee shall be jointly requested by the contractor and the Dartmouth College Project Manager early in the project. No firestops shall be concealed until an inspection has taken place.

F. The contractor shall prepare a book containing all of the standard firestop assemblies and engineering judgments used on the project. A preliminary version may be used as the submittal providing material description sheets are included. Each area shall also be identified, usually by rooms. Large rooms with several penetrations may require multiple sheets. Each sheet shall have, as a minimum, the following data:

1. System assembly reference number.
2. Location in room (ceiling, wall, floor, etc.).
3. Date of installation.
4. Signature of installer.
5. Installing contractor name.
6. Signature of inspecting contractor.
7. Inspecting contractor name.
8. Code official or designee signature.
9. Code official or designee company.

END OF SECTION 07841