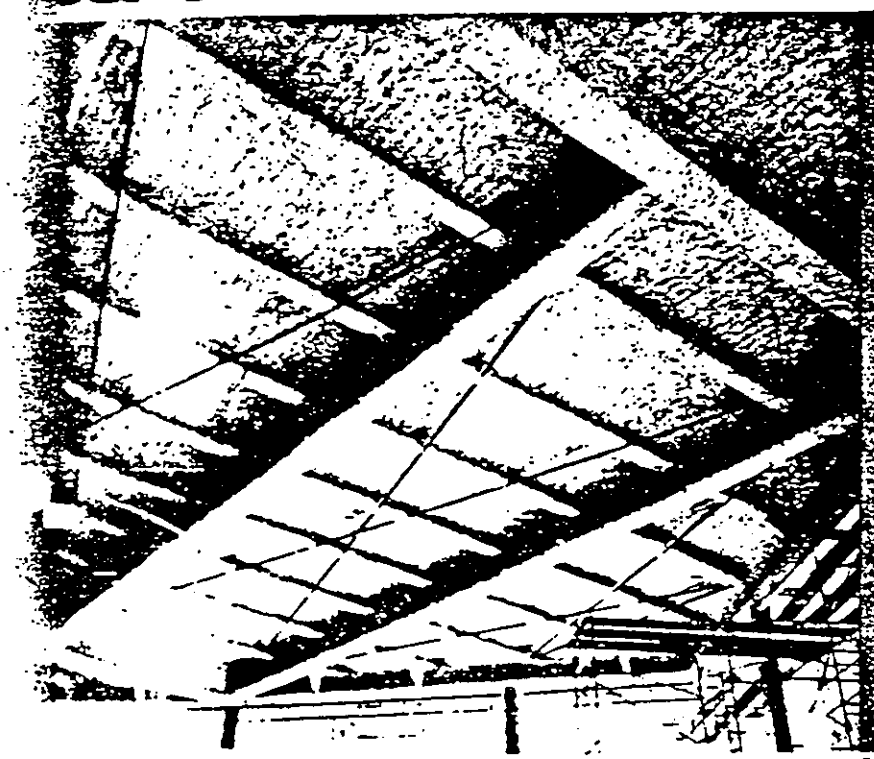
Frank M Stumpf dep

PLAINTIFF'S EXHIBIT
USM-321

Cafco DECK-SHIELD



FIREPROOFING

For

- DECKS
- CEILINGS
- BEAMS
- GIRDERS
- COLUMNS

1959

COLUMBIA ACOUSTICS
FIREPROOFING Company

subsidiary of
UNITED STATES MINERAL WOOL COMPANY
Stanhope, New Jersey

NEtcong 2-1200

1959

Cafco®

66

BLAZE-SHIELD

CAFCO* BLAZE-SHIELD, designed for fireproofing beams, girders, columns, decks and ceilings, is a scientifically proportioned blend of refined asbestos fibers, white mineral fibers, and 100% inorganic binders. Mechanically applied in ½" to 3" thicknesses, it forms a lightweight, fissured, continuous blanket without seams, joints, or cracks.

APPLICATION

CAFCO BLAZE-SHIELD is applied to most types of clean surfaces without the use of supplementary bases, such as metal lath, for mechanical key. Upon job application of CAFCO ADHESIVE to the base surface, ONE application of BLAZE-SHIELD by ONE trade in ONE coat, followed by light tamping results in a tightly bonded, compressible coating.

ADVANTAGES

CAFCO BLAZE-SHIELD offers the architect, engineer and contractor these major advantages—

labor savings Direct application from a small rolling scaffold by one trade allows minimum fireproofing man-hours.

material savings In many cases savings can be effected through elimination of clips, hangers, rods, channels, spacers, and lath.

weight savings CAFCO BLAZE-SHIELD applied ½" thick to cellular deck weighs less than 6 pounds per square foot of deck. It is lighter than "lightweight" fireproofing materials.

space savings Direct application to structural elements reduces the volume of normally wasted space.

permanence Permanence of protection is assured because inorganic BLAZE-SHIELD is rot-proof, vermin-proof, and rust-proof. Normal structural movement is absorbed without surface cracking and spalling.

clean application Equipment incorporating a special Dust-Control System permits other trades to work during fireproofing application.

high light reflection BLAZE-SHIELD has a higher light reflectance than most other materials. Tested by Riverbank Laboratories, it has a reflectance of [illegible]. Left hemisphere: Ceiling and [illegible] sprayed with one coat of white paint.

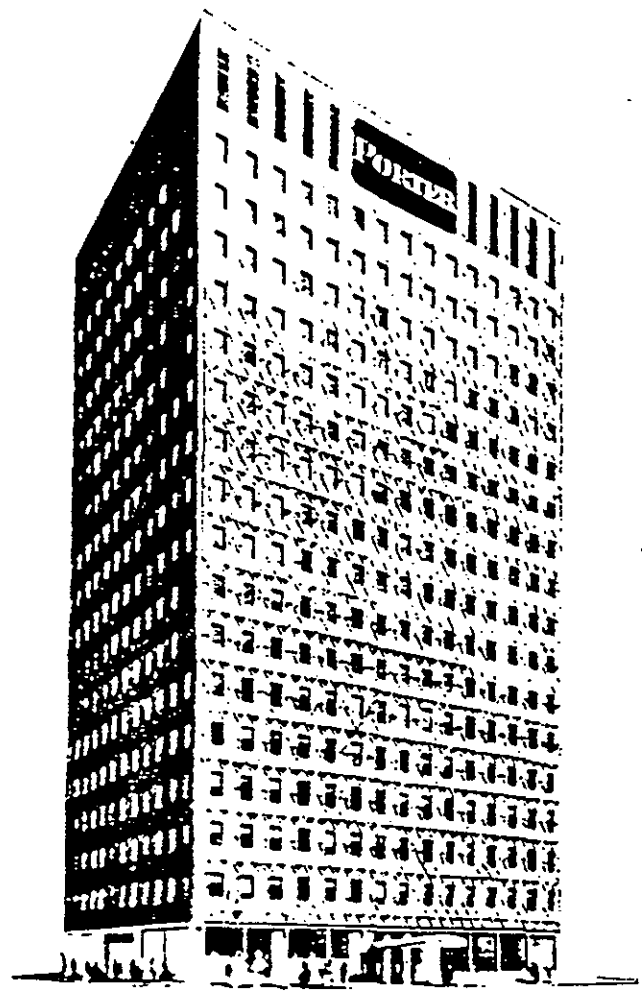
high acoustical absorption Tested by Riverbank Laboratories, 1" CAFCO BLAZE-SHIELD acoustical finishing coat provided a Noise Reduction Coefficient of .75. When a perforated metal pan ceiling is suspended 12" below a CAFCO treated floor or roof assembly, the sound absorbing pad may be eliminated. See page 4.

high thermal insulation A K-factor of .20 allows effective insulation of specified boundaries and roof undersides. See page 4.

winter application With simple precautions, application is possible under many temperature conditions which delay the use of other fireproofing materials. Schedules are maintained, job heating costs are reduced.

corrosion preventive CAFCO ADHESIVE applied directly to steel leaves no space in which corrosion can take place. Job prime coating may often be eliminated.

**T.M. Reg. U.S. Pat. Off.*



H. K. Porter Co., Inc. Office Building—Pittsburg, Pa.
Architect: Harrison & Abramovitz, New York
General Contractor: George A. Fuller Co.—Pittsburgh, Pa.

Approximately 220 tons of CAFCO BLAZE-SHIELD applied directly to the cellular deck and beams of this structure resulted in job economies which could not have been realized with other types of fireproofing.

fire tests prove efficiency

CAFCO BLAZE-SHIELD is a highly efficient fireproofing material tested and proved by recognized laboratories and accepted by building departments. Test data are filed with Insurance Rating Bureaus throughout the United States and Canada. Data on the facing page show fire test results.

cafco test facilities

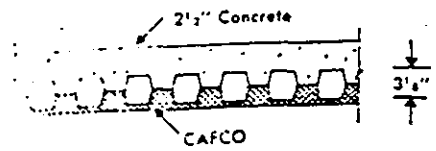
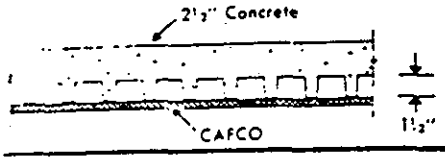
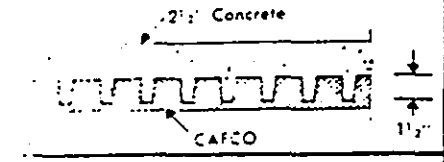
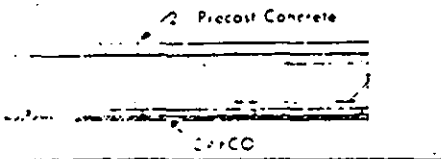
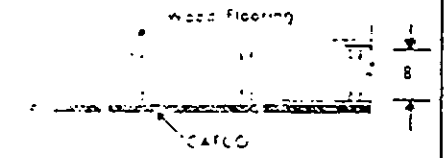
Columbia Acoustics and Fireproofing Company maintains a test furnace for evaluating CAFCO BLAZE-SHIELD applied to existing and new construction systems. New uses and systems are constantly under study. Test results can be correlated with those obtained at Underwriters' Laboratories, Inc.

cafco engineering service

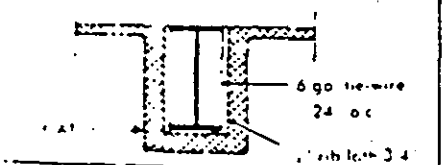
An engineering and service staff is available to assist the building industry. Years of research and development have established an enviable reputation which is reflected in every application of CAFCO products.

FIRE RETARDANT RATINGS

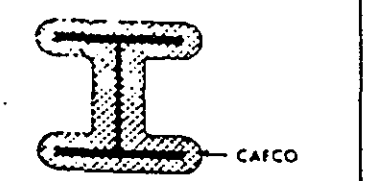
FLOORS and CEILINGS

	description	rating	CAFCO thickness	authority
	CAFCO applied directly to cellular steel floor units.	2 hrs. 3 hrs. 3 hrs. 4 hrs.	⅜" 7/16" ¾" 1"	EXTR. BMS-92 U.L.(Canada) July 15, 1958 U.L. TEST =R3749-2 EXTR. BMS-92
	CAFCO applied directly to cellular steel floor units.	2 hrs. 3 hrs. 4 hrs.	½" ¾" 1"	U.L.(Canada) Sept. 9, 1958 U.L. TEST =R3749-3 EXTR. BMS-92
	CAFCO applied directly to fluted steel floor units.	2 hrs. 3 hrs. 4 hrs.	⅜" ¾" 1"	EXTR. BMS-92 U.L. TEST =R3749-3 EXTR. BMS-92
	CAFCO applied to ⅜" rib lath tied to ¾" channels spaced 16" o.c. Open web joists on 24" cc.	3 hrs.	1"	U.S.T. TEST =E-13891
	CAFCO applied to ⅜" gypsum lath nailed to 2"x8" wood joists spaced on 16" cc.	1½ hrs.	¾"	CAFCO TEST =FT-8

BEAMS

	description	rating	CAFCO thickness	authority
	CAFCO applied directly to beam.	1 hr. 2 hrs. 3 hrs. 3 hrs. 4 hrs.	¾" 1⅛" 1⅜" 1¾" 2⅛"	EXTR. BMS-92 U.L.(Canada) Sept. 9, 1958 U.L.(Canada) July 15, 1958 EXTR. BMS-92 U.L. TEST =R3749-3
	CAFCO applied to contact wrapped beam.	1 hr. 2 hrs. 3 hrs. 4 hrs.	½" ⅞" 1¼" 1½"	EXTR. BMS-92 EXTR. BMS-92 EXTR. BMS-92 U.L. TEST =R3749-3

COLUMNS

	description	rating	CAFCO thickness	authority
	CAFCO applied directly to column.	1 hr. 2 hrs. 3 hrs. 4 hrs. 5 hrs.	¾" 1¼" 1¾" 2⅛" 2½"	EXTR. BMS-92 EXTR. BMS-92 EXTR. BMS-92 EXTR. BMS-92 U.L. TEST =R3749-4

note: Extr BMS-92-National Bureau of Standards

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BLAZE-SHIELD SPECIFICATIONS

NOTE: To permit a comparison of quotations on fireproofing, we recommend this work be awarded a separate section in the specifications. This will permit immediate analysis without breaking down possible combination bids. Delete irrelevant paragraphs.

FIBROUS FIREPROOFING

GENERAL

scope
This section shall include all materials, equipment and labor necessary for the application of fibrous fireproofing to areas indicated on drawings or specified in this section.

manufacturer's qualifications
The manufacturer of the materials shall have the approval for the application specified. Such approval to include the local Building Department. The manufacturer shall provide actual test data from a laboratory acceptable to the pertinent insurance rating board.

contractor's qualifications
The Contractor shall be franchised for this type of work by the manufacturer of the materials; he shall use materials and application and Dust Control equipment approved by the manufacturer, he shall make the application of this work under the supervision of a manufacturer trained or approved foreman; he shall execute the work in strict accordance to manufacturer's specifications and instructions.

samples
The Contractor shall submit two samples to the architect prior to commencement of work.

examination of existing work
The Contractor shall examine all work prepared by others which is to receive the work of this section. Commencement of work constitutes acceptance of all surface bases and preparations for his work.

work by others
Surfaces for application of fireproofing and base attachments for the suspension of pipes, ducts, lights, acoustical ceilings and other mechanical devices shall be installed by others prior to commencement of work covered by this section.

MATERIALS

bonding adhesive
Shall be milky white, latex-type water emulsion which shall unaffected by water, water vapor, condensation, aging, or fre ing once it has set up. Bonding adhesive to be CAFCO A HESIVE as supplied by Columbia Acoustics and Fireproo Company, Stanhope, N. J., or approved equal.

fiber
The fiber shall consist of inorganic virgin Crysotile asbestos small pellet, white, mineral fiber, combined with inorga binders. The fiber shall have a thermal conductivity (k) fac of not greater than .26 and shall have a Noise Reduction efficient of .75 on solid backing, as tested by Riverbank La ratories, Geneva, Illinois. Fibers shall be CAFCO BLA SHIELD, or approved equal, and shall be supplied to job-site in sealed paper bags, properly marked and labeled show the approval of Underwriter's Laboratories, Inc.

transparent overspray
Shall be CAFCO SEALER or approved equal; shall be tra parent and unaffected by moisture.

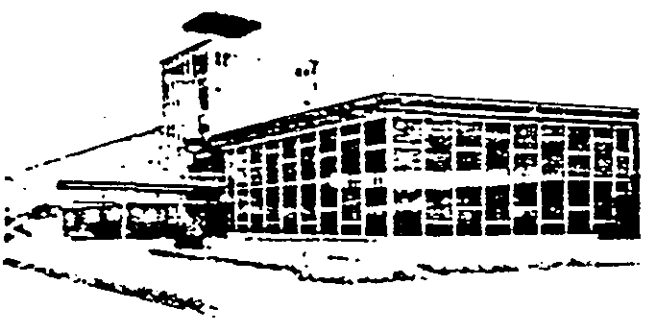
INSTALLATION

job conditions
Application shall be started only after the contractor is satisf surface and weather conditions are acceptable. Surfaces sh be reasonably clean and free of dirt, grease, oil, loose plas rust, paint, or other conditions which would tend to prev good adhesion. Freezing weather application shall follow manufacturer's recommendations.

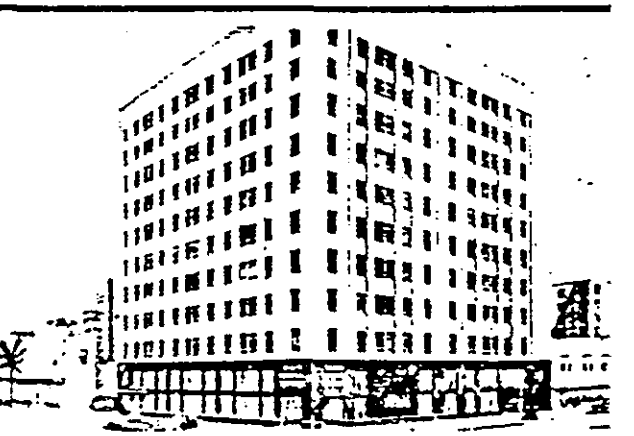
procedure
All surfaces to be covered shall be primed with bonding hesive. Fiber shall be applied to required thickness, and t tamped and oversprayed with sealer.

CAFCO FOR ACOUSTICS AND INSULATION

With CAFCO BLAZE-SHIELD has valuable acoustical and insulating properties, it has been designed primarily for efficient, economical fireproofing. Technical information covering CAFCO SOUND-SHIELD, for acoustical absorption, and CAFCO HEAT-SHIELD, for thermal insulation can be found in Sweets Architectural Ha Co and Plant Engineering fa Co Files, respectively.



Air Terminal Bldg., Uplands Airport Ottawa, Ont.
Dept of Transport, W A Ramsay, Chief Architect
General Contractor: Perini Ltd Ottawa
Architects, Gilleland and Strutt, Ottawa



First Federal Savings and Loan Association of St. Petersburg, Fla.
Designer: The Cunneen Company, Philadelphia, Pa.
General Contractor: Mills and Jones, St. Petersburg
Architect: Parish and Crowe, St. Petersburg

COLUMBIA ACOUSTICS and FIREPROOFING Company