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Special Project Series

*INVESTIGATION OF THE EXTENT OF STRUCTURAL DAMAGE
CAUSED BY FIRE AT THE MAC FRUGAL'S DISTRIBUTION CENTER*



The Mac Frugal's Distribution Center in New Orleans, Louisiana, is a large steel framed structure with precast concrete exterior walls. The Distribution Center has a footprint of approximately 1.2 million square feet.

This structure was destroyed by a fire on March 21, 1996 and John A. Martin and Associates, Inc. (JAMA) was assigned with the task of performing a review of the damaged structure and making recommendations on the structural and non-structural components which could be salvaged and used in reconstruction of the facility. With the exception of a small area in the southeast corner, nearly all of the warehouse roof collapsed. The mezzanine area at the west end of the building, including the administrative offices, was protected by a fire-wall and not consumed in the blaze, but it did suffer heavy structural damage.



While it was suggested by another engineering firm that about 70% of the exterior precast panels might be salvaged and included in the replacement structure, JAMA advised the owners that such a decision might not be in their best interests. Many of these panels suffered significant damage in the fire and the subsequent collapse of the roof system. Our close evaluation revealed that saving these panels would be much more troublesome and expensive than utilizing new panels for reconstruction.