

Lewis Store



PROJECT

Lewis Store
Fredericksburg, Virginia

CLIENT

The Historic Fredericksburg Foundation, Inc.

DATES

2005 Structural Assessment & Design and Documentation
2006 Construction Contract Administration

DESCRIPTION

The Lewis Store is one of the oldest surviving urban retail buildings in the United States. It was constructed in 1749 by John Lewis, a leading Virginia merchant and planter and brother in law of George Washington. The building is distinguished by the use of carver stone lintels and quoins at the corners, a feature rarely seen in small brick buildings. These and other design elements make the Lewis Store an architecturally important urban store surviving from the colonial era.

CHALLENGE

S. Harris Ltd. was retained by Historic Fredericksburg Foundation, Inc. to investigate and determine the structural condition of the Lewis Store. The focus of the investigation was to assess and calculate the load capacity for expanded use of the second floor, second floor corridor, stairwells, and the attic space.

SERVICES

Structural Stabilization

Reinforced existing summer beam by designing an intricate steel truss system, capable of withstanding live and dead loads totaling 125 psf and relieving the existing summer beam of the incoming loads from the joists.

The design required minimal alteration to the original framing and each individual truss was fine-tuned by the precise tightening of a turnbuckle.

Provided construction documents that detailed an articulated truss consisting of a series of turnbuckles, clevises, threaded rods, and steel plates.

Renovation

Provided interior rehabilitation of the 2nd and 3rd floors. Specified architectural finishes consistent with the previously renovated first floor.

Provided construction details to level the second floor, raising the floor a total of ten inches.

POINTS OF INTEREST

The Lewis Store is listed on the National Register of Historic Places.