

Fischer Theater Structural Condition Investigation

Danville, Illinois

Range of Services

- Structural consultant
- Structural investigation, report

Client: Vermillion Heritage Foundation, Danville, IL



Present South Wall



Present North Wall

Project Overview

The Fischer Theater, built in 1884, held 859 seats and was formerly known as the Grand Opera House in Danville, IL. The theater had been a venue for vaudevillian theater and a movie house. It has remained vacant since it was closed in 1982, left unattended it began to deteriorate. It was granted historic Landmark status in 1994. A foundation was started to raise money to restore the theater and a structural condition assessment was requested in 1997 due to the extent of deterioration to the entire building, and noticeably the south masonry-bearing wall.

The building is a basic rectangle in plan with a flat roof, except over the stage area. The exterior walls are three to five wythes of brick, with the inner wythes made of salmon brick. Wood stud walls are built inside the walls against the masonry. The north and south exterior brick walls support the three major timber roof trusses that span the theater space. The major balcony is steel framed and cantilevers toward the stage. The south exterior wall was covered with a bituminous coating to prevent water entry into the salmon brick wythes and was recoated in 1996, since the wall was beginning to bulge outward.

Present South Wall Condition

Water has been entering the wall for many years. The salmon brick units, intended for interior usage, have disintegrated and the mortar has turned to powder in the lower regions of the three story wall. Parts of the wall have already collapsed behind the recessed wood stud wall and plaster coating. The wall is a bearing wall that supports the main roof trusses and is unstable and poses a threat to public safety. See image upper left.

Present North Wall Condition

The north wall is considerably thicker and more detailed on the exterior since it faces the street. It has more structural integrity than the south wall. Termite activity has deteriorated the inner recessed wood stud wall segments. See image lower left.

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East Roof Truss



Condition of the East Roof Truss

The South-bearing end of the timber truss is rotted, crushed and rotated (see overall image far left and close-up inset image of bottom chord). Large chunks of wood can be removed by hand. The bolts are tilted and unable to hold the parts together. The north bearing end sits on three studs of the wood stud recessed wall, rather than the masonry. The truss reaction has crushed the top plate into the central stud, causing the truss end to drop 1 inch and fracture the wood top plate (see lower inset image to left). The adjacent brickwork has fractured, rotated and displaced as a result of the truss drop.

Condition of the Middle truss

The middle truss south bearing end was also rotted and displaced downward, much like the east truss (see lower left image).

Condition of the Lower Scalloped Balconies

The side balconies are wood framed and cantilever off the brick wall below. The backspan frames into a ledger board anchored to the exterior south wall. The balconies have sagged visibly and flex when standing on them. Creep in the wood has led to permanent sag. Collapse of the south wall will collapse the balconies (see image below).

Middle Truss



Lower Balconies



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