

Sean Hazen

Forensic Engineering Expertise

Structural Analysis/Design

Review appropriate documents, including project plans and specifications as it relates to the building structure for purposes of failure analysis and extent of resulting damages. In addition, being a licensed professional engineer. Examples of past work includes bridge design, inspection with DOT and local agencies, failure analysis of failing bridge structures (concrete, steel, wood) and various building components (windows, doors, glass, roofing, exterior and interior cladding).

Origin & Cause

Determine the source and responsible party or element related to the failure of a structural or architectural element, or water damage in a building. Examples of past work include failure of roofing and wall cladding causing moisture entry, humidity, and condensation-related losses.

Building Fenestration/Building Envelope

The building envelope is a building's first line of defense to moisture entry. Identifying the type of system (single versus multiple barrier) and how the various adjoining materials' water, vapor, thermal, and air control layers connect is key to effective moisture management. Examples of past work include residential window installations, exterior cladding installation, and roofing materials.

Inspection and Evaluation of Roofing Systems

This includes steep and low slope roofs as well as various types of roofing materials, including both common and unique roofing applications. Experience involves evaluating roofs for installation deficiencies and storm-related damages, including for hail and wind.

Education

Bachelor of Engineering in Civil Engineering
Western Michigan University, Kalamazoo, MI
May 2017

Licenses & Certifications

PE – Professional Engineer
Licensed by the State of Michigan - Number 6201310024
QTL – Qualified Team Leader for bridge inspections in the State of Michigan
(MDOT)

Employment History

Forensic Engineer
Nederveld, Inc.
2025 - Present
Duties include forensic engineering analysis relating to building pathology, structural damage due to fire, structural damage from vehicle impacts, storm damage (wind, snow, hail), seismic, and water loss events, calculations, and plan of repair design.

Bridge Engineer
Fishbeck, Grand Rapids and Novi, MI
2018 - 2024

Duties included providing bridge inspection and scoping for MDOT and LAP agencies as well as designing bridge plans, reviewing specifications, and detailing plan sets.

Civil Engineering Technician

Fishbeck, Novi, MI

2017 - 2018

Duties included providing construction inspection for Michigan Department of Transportation projects and ensuring construction complies with specifications and estimates on project plans.

Intern - Technician

Fishbeck, Thompson, Carr & Huber, Inc., Novi, MI

2016

Duties included providing construction inspection for Michigan Department of Transportation projects and ensuring construction complies with specifications and estimates on project plans.

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