

### Engineering Design & Testing Corp. 8405 Melrose Drive | Lenexa, Kansas 66214

phone: (913) 859-9580 email: ctarbell@edtkc.com

## **EDUCATION**

2006	Bachelor of Science, Civil Engineering
	Iowa State University, Ames, Iowa

2011 Master of Civil Engineering University of Kansas, Lawrence, Kansas

## **EXPERIENCE**

September 2020 Engineering Design & Testing Corp. to Present Lenexa, Kansas

### Consulting Engineer

For commercial, industrial and residential structures: assessment of hail and/or wind damage to roof coverings; scope of structural damage due to wind, fire, snow, vibrations, vehicle impacts, tree impacts; cause of moisture intrusion through building envelope and foundations; scope of foundation damage due to involuntary discharges of water, soil pressure and ground movement; evaluation of construction defects and building code compliance; failure analysis involving concrete, masonry, steel and wood structures; cost estimates; value of loss; laboratory and field testing of construction materials; damage segregation; infrared thermography.

### April 2018 SunSource Homes to July 2020

# Kansas City, Missouri

Structural Engineer

Analysis of existing structures for structural capacity to support solar installation. Structural design of custom homes and other miscellaneous structures.

#### May 2006 **Burns & McDonnell** to February 2018 Kansas City, Missouri

### Sr. Structural Engineer

Design of concrete foundations and structural steel ductwork for power generation facilities. Design of concrete foundations and steel platforms for refinery facilities. Structural analysis of existing lattice steel high voltage transmission towers and design of high voltage transmission lines.

## **EXPERIENCE**

Field Experience and Consulting Activity (partial list)
Floating Dock — Lee's Summit, Missouri
Determine scope of structural damage to floating dock.
Restaurant Fire — Kansas City, Kansas
Determine scope of structural damage due to fire and code evaluation.
Residential Roof — Clinton, Missouri
Evaluate roofs for wind and/or hail damage.
Multiple Hotels — Omaha, Nebraska
Evaluate roofs for wind and/or hail damage.
Vehicle Impact — Independence, Missouri
Determine scope of damage to residence resulting from vehicle impact.
Moisture Intrusion — Warrensburg, Missouri
Determine cause of moisture intrusion.
Residential Roof — Saint Joseph, Missouri
Determine scope of wind and/or hail damage to roof.
Residential Hail — Olathe, Kansas
Evaluate concrete roof tiles, windows and EIFS veneer for hail damage.
Grain Bin — <i>Meadville, Missouri</i>
Determine cause of damage to grain bin.
Commercial Building — <i>Saint Joseph, Missouri</i>
Determine cause of moisture intrusion through wall of commercial building.
Tree Impact — Stilwell, Kansas
Determine scope of residence damage due to tree impact.
Townhome Complex — <i>Kansas City, Missouri</i>
Evaluate roofs for hail damage.
Commercial Building Fire — <i>Kansas City, Missouri</i>
Determine scope of fire damage to building.
Residential Roof — Lee's Summit, Missouri
Evaluate roof for hail damage.
DECISTRATIONS and CERTIFICATIONS
REGISTRATIONS and CERTIFICATIONS
Registered Professional Engineer in Arkansas (#19799)
Registered Professional Engineer in Colorado (#54524)
Registered Professional Engineer in Illinois (#62073689)
Registered Professional Engineer in Indiana (#PE12000638)

Registered Professional Engineer in Iowa (#P26209)

Registered Professional Engineer in Kansas (#21502)

Registered Professional Engineer in Minnesota (#60466) Registered Professional Engineer in Missouri (#PE-2018019613)

Registered Professional Engineer in Nebraska (#E-18347)

Registered Professional Engineer in Oklahoma (#32174)

Registered Professional Engineer in Wisconsin (#49363-6)

National Council of Examiners for Engineers and Surveying Record (#12-583-44)

## **PROFESSIONAL ORGANIZATIONS**

American Society of Civil Engineers (ASCE)

## **CONTINUING EDUCATION (partial list)**

2022 Technical Issues Regarding Premise Liability Matter; EDT, Columbia, SC Creative Engineering 101; EDT, Columbia, SC Construction Defects; EDT, Columbia, SC Wild and Urban Interface and Mitigation Strategies; EDT, Columbia, SC Investigating Internal Combustion Engine Failures; EDT, Columbia, SC 2021 Photovoltaic and Energy Storage - How It Can All Go Wrong, EDT, Columbia, SC Hailstones – Impact Damage to Asphalt Shingle Roof Coverings; EDT, Columbia, SC Hurricane Damage: Storm Surge vs Wind vs Wind-Driven Rain: EDT, Columbia, SC Rooftop Solar Arrays: A Civil/Structural Perspective; EDT, Columbia, SC Blast-Related Damage Evaluation of Residential Structures; EDT, Columbia, SC Failure Analysis of Threaded Fasteners; EDT, Columbia, SC 2020 Design of Roof Structures, ASCE; Reston, VA Connection Solutions for Wood Framed Structures, ASCE; Reston, VA Elevating Wood Frame Structures, ASCE; Reston, VA Engineering Judgement – Structural Renovation of a 100-Year-Old Barn ASCE; Reston, VA Evaluating Damage and Repairing Metal Plate Connected Wood Trusses, ASCE; Reston, VA Structural Considerations for Building Additions, ASCE; Reston, VA Antiquated Structural Systems, ASCE; Reston, VA Snow Loading for Non-Standard Roof Shapes, ASCE; Reston, VA Investigation of Winter Roof Failures, ASCE; Reston, VA The Structural Stability Game Show, AISC; Chicago, IL The Fasteners and the Furious, AWC; Leesburg, VA 2019 Essentials for Wood Construction, AWC; Leesburg, VA Demystifying Diaphragm Design, AWC; Leesburg, VA

*Tall Wood Structures*, AWC; Leesburg, VA *Special Inspections for Wood Construction*, AWC; Leesburg, VA *Engineered Lumber Design and Construction*, Half Moon Education, Overland Park, KS *CLT as a Floor or Roof Element*, AWC; Leesburg, VA *2018 NDS Changes*, AWC; Leesburg, VA *Cornucopia of Classic Connection Conundrums*, AWC; Leesburg, VA