

Lawrence F. Kruth

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EMPLOYMENT

Kruth Engineering, LLC – Grand Ledge, Michigan

2023 to present

Consulting Services for Steel Construction

- Steel Fabrication
- Steel Erection
- Site-Specific Erection Planning
- Erection Procedures
- Construction Engineering
- Safety Analysis
- Site-Specific Safety Programs
- Fall Protection Systems
- Quality Management
- AISC Fabrication Certification
- AISC Erection Certification
- Constructability Analysis
- Connection Design
- Expert witness for dispute resolution

American Institute of Steel Construction – Chicago, Illinois

2016 to 2022

Vice President of Engineering & Research

- Oversee all of the Institute's technical activities, including AISC standards and technical publications, research activities, and development of conceptual solutions and technical assistance through the AISC Steel Solutions Center.

Douglas Steel Fabricating Corporation – Lansing, Michigan

1984 to 2015

Vice President – 2013 to 2015

- Responsible for coordinating all the activities of Douglas Steel in all departments for their increased efficiency and effectiveness. Has the decision-making authority to resolve all inter-departmental conflicts.
- Responsible for ensuring that all departments within the organization embrace and adhere to Douglas Steel's Quality Management System.
- Responsible for ensuring that all departments within the organization embrace and adhere to Douglas Steel's Safety Program.
- Serves as the company's representative concerning all union issues, including but not limited to contract negotiations, staffing, disciplinary, attendance, productivity, and safety, and serves as the company's head negotiator during negotiations.
- Responsible for overseeing the procurement of all materials for fabrication, managing the corporation's inventory, and the systems required to manage the materials department.

Vice President of Engineering, Technology & Safety – 2008 to 2013

- Responsible for managing all engineering personnel and activities required for the fabrication and erection of structural steel, including establishing annual departmental budgets, supervising personnel, monitoring schedules and activities, subcontracting engineering work, and supervising the subcontracted engineering work.
- Designed complex connections and fully designed many miscellaneous steel items such as stairs, handrails, and platforms.
- Responsible for solving shop fabrication issues and field erection issues.
- Pioneered the use of BIM in our company and with A/E firms throughout Michigan.
- Managed all technology-related activities throughout the corporation, including networking.
- Responsible for managing all safety activities for the shop and field erection operations, including developing and administering policy to assure compliance with applicable regulations.

Engineering and Safety Manager – 1998 to 2008

- Responsible for managing all engineering personnel and activities required for the fabrication and erection of structural steel, including establishing annual departmental budgets, supervising personnel, monitoring schedules and activities, subcontracting engineering work, and supervising the subcontracted engineering work.
- Developed methods to exchange models between design software and our detailing software.
- Designed complex connections and fully designed many miscellaneous steel items such as stairs, handrails, and platforms.
- Responsible for solving shop fabrication issues and field erection issues.
- Responsible for managing all safety activities for the shop and field erection operations, including developing and administering policy to assure compliance with applicable regulations.

Chief Engineer – 1991 to 1998

- Responsible for managing all engineering personnel and activities required for the fabrication and erection of structural steel, including establishing annual departmental budgets, supervising personnel, monitoring schedules and activities, subcontracting engineering work, and supervising the subcontracted engineering work.
- Implemented a Computer-Aided Drafting System (SDS/2).
- Designed complex connections and fully designed many miscellaneous steel items such as stairs, handrails, and platforms.
- Responsible for solving shop fabrication issues and field erection issues.

Project Manager – 1984 to 1991

- Coordinated all project activities, including estimating, contract negotiating, subcontracting, purchasing, engineering, fabrication, erection, accounts payable, accounts receivable, and scheduling.
- Investigate future projects and coordinate bidding.

H & G Steel Fabrication Corporation – Grand Ledge, Michigan

1984 to 1984

Contract Manager – 1984 to 1984

- Project Management and Contract Administration for Structural Steel Fabrication and erection, consisting of estimating, preparing proposals, developing contract documents, coordination of detailing, and investigating future project potentials.

Kaiser Engineers of Pennsylvania – Pittsburgh, Pennsylvania

1981 to 1984

Senior Engineer – 1981 to 1984

- Project Engineering, including developing design concepts and preparing designs for various structures.
- Investigation, development, implementation, and management of computer-related activities.
- Projects included site layout, site preparation, and rail and road design for Steel Continuous Casting Plants. Erosion and sedimentation control plans, structural steel design, reinforced concrete design, foundation design, and structural analysis.
- Verified final construction of structural elements at a nuclear power plant.

Master Engineers – Pittsburgh, Pennsylvania

1980 to 1981

Staff Engineer – 1980 to 1981

- Developing design concepts for various civil engineering structures, supervising and training drafters, designers, and engineers, and preparing designs, specifications, estimates, and proposals.
- Projects included slope stabilization, continuous casting facilities - steel and aluminum, structural analysis, design of mill buildings, foundation design, and light rail transit.

Franklin Associates – Somerset, Pennsylvania

1976 to 1980

Engineer – 1976 to 1980

- Direct responsibility for many construction projects from the initial proposal stage through construction inspection, including supervision of drafters, surveyors, engineers, and geologists.
- Projects included structural steel, reinforced concrete, and foundation design for industrial, commercial, and institutional buildings, small bridge design, small municipal sewage facilities, small water treatment plants, and supply systems, including establishing rate structures, rehabilitation and expansion of existing sewage and potable water facilities, sewer system evaluation surveys, environmental permits (Local, State, and Federal), site layout, site preparation, rail, and road design, earthen structure design, stability analysis, erosion and sedimentation control plans, and surveying.

PROFESSIONAL CERTIFICATIONS AND MEMBERSHIPS

- Licensed Professional Engineer, State of Michigan
- Registered Professional Engineer, State of Pennsylvania
- Member Structural Engineers Association of Michigan
- Lifetime Honorary Member of the American Institute of Steel Construction
- 2011 Structural Engineers Association of Michigan – Engineer of the Year
- Member of the MIOSHA Part 26 – Steel Erection Advisory Committee 2000 to 2015
- Member of the MIOSHA Part 10 – Lifting and Digging Equipment Advisory Committee 2000 to 2015

PROFESSIONAL ACTIVITIES

- Member American Institute of Steel Construction Board of Directors 2012 to 2016
- Member American Institute of Steel Construction Committee on Specifications
- Member American Institute of Steel Construction TC-6 Connection Design Specification Committee
- Member American Institute of Steel Construction TC-12 Quality Control & Quality Assurance Specification Committee
- Member American Institute of Steel Construction Committee on Research
- Member American Institute of Steel Construction Committee on Manuals
- Member American Institute of Steel Construction Structural Stainless Steel Committee on Specifications
- Chair of the Research Council on Structural Connections Specification Committee
- Adjunct Professor – Michigan State University 2016
- Speaker at NASCC – The Steel Conference on AISC Code of Standard Practice, Safety, BIM, Quality Control & Quality Assurance, and unique design projects 2003 to Present
- Member Rules Committee and Judge for AISC Student Steel Bridge Competition 1988 to Present
- Speaker at many professional events, such as Structural Engineers Association of Michigan, Structural Engineers Association of Kentucky, American Society of Civil Engineers, National Institute of Steel Detailers, Bi-State Steel Fabricators Association, Central Fabricators Association, Southern Association of Steel Fabricators

EDUCATION

- Bachelor of Science in Civil Engineering Technology, 1976, University of Pittsburgh at Johnstown

DISPUTE RESOLUTION

- Retained as an expert witness and prepared a report on structural steel fabrication and erection for Manni Sipre S.P.A., a steel fabrication company located in Italy. Manni Sipre S.P.A. filed a case with the ICC International Court of Arbitration against The Berlin Steel Company (USA) for failure to pay the balance due to Manni Sipre S.P.A. at the end of a contract between the two companies. Mr. Kruth's testimony was vital to the arbitral tribunal awarding Manni Sipre S.P.A. the full compensation owed on the contract.
- Retained as an expert witness and prepared a report for the owner on a schedule delay related to the steel fabrication and erection of a large convention center.
- Retained as an expert witness regarding a steel erection fatality on a job site.
- Retained as an expert regarding a conflict with the Wisconsin Department of Transportation and AISC Certification.
- Retained as an expert regarding the fabricator not receiving contracted payment for work performed on an industrial facility.
- Retained as an expert regarding a building collapse.
- Retained as an expert regarding deflection of a long-span truss in a warehouse facility.