

Ralph A. Wharry P.E.

Wharry Engineering
427 Capital Ave S.W.
Phone: 269-962-9423 Fax: 269-962-7713
rawharry@wharry.com

General Information

- Bachelor of Science and Master of Science Degrees in Engineering
- Registered Professional Engineer in the states of Michigan, Texas, Indiana, Ohio, Oklahoma and South Carolina. Retired registration in Kentucky and Tennessee
- Experience in Structural Engineering, Building Design and Restoration, Roofing Systems, Waterproofing, and Remediation.
- Consulting Engineer specializing in the design, construction of industrial facilities.
- Radon Mitigation – EPA Certified
- Builders License, State of Michigan
- Mechanical License, State of Michigan-retired
- Veteran of the United States Army

Employment

March 1979 to Present

Wharry Engineering: Engineering Consultant

Responsibilities included: Projects designed metal and block buildings, crane ways, sewer systems, industrial waste systems, industrial waste surveillance systems, environmental areas, road systems and foundations. Types of industries involved included auto parts, cable, foil products, cereal products, adhesives, metal plating, wire products, insurance and supply houses. Size ranges 3,000,000sf.

Size ranges to 3,000,000 sf. Projects designed include steel, wood, and masonry buildings, crane ways, sewer systems, industrial waste surveillance systems, site development, roofing systems, waterproofing, mold and radon mitigation, and green buildings. Types of industries involved include auto parts, airport facilities, cable, foil products, cereal products, adhesives, metal plating, wire products, insurance, communications, supply houses, paper mills, steel fabrication, truck repair, warehousing, and government. Clients include: General Motors, Bell South, AT&T, Kraft Foods, Building Technology Associates, Ralston, Menasha Paper, ISRI, Johnson Controls, McKinney Aviation Texas Instrument Corp., TIG Insurance, Nationwide Insurance, Dallas I.S.D., Post Foods, Lockheed Martin, Welch Foods, and Byrd's Landing just to name a few of the four thousand projects completed, Airport Design: W.K. Kellogg Airport taxiway. Engineer of record for W.K. Kellogg Co. Corporate Hanger.

1978 to Present

President/ Industrial Commercial Construction Company, Inc.

Design/Build Industrial Buildings

President of firms varying in size from 13 to 49 employees. Facility included warehousing/offices of 38,000sf for materials and construction equipment.

March 1979-November 1982

Ferguson-Fruin Construction Company: Project Engineer

Responsibilities included: Industrial Plant Construction; Project Manager for construction of auto related industrial plants for foreign corporations. Responsible for construction and designing on design/build contract from initial ground clearing to machinery setting. Project size 88,000sf to 105,000sf with elevations to 56 feet.

November 1978 to March 1979

Gilbert-Commonwealth: Project Engineer

Power Plant Consultant: Engineer, Inspected area facilities and documented findings making recommendations for improvement. Concrete specifications

March 1975 to November 1978:

City of Battle Creek City/ Engineer

Responsibilities included:

Engineering; Directed staff of 12-20 civil, structural sanitary and traffic engineers and technicians.

Budgeting; Responsible for budgets of engineering, traffic, major and local street construction, outside services and EDA grants. Experience on bargaining team in union negotiations.

November 1972 to March 1975:

City of Battle Creek/ Principal Engineer

Devised initial design specifications for projects. Worked jointly with other departments through project to establish requirements, project budgets and resources and completion of project on time. Prepared progress reports, evaluated and approved project changes, made site visits.

May 1971 to November 1972:

Engineer/ City of Ann Arbor

Responsibilities included: Designing and constructing utility, roadways, sidewalks and traffic flow projects. Inspected utility and public roadway with work of developers.

May 1969 to April 1970: US Army Signal Corps/Fort Monmouth, New Jersey

Electronics Instructor: Communication Controller

Controlled and coordinated communication facilities and networks within the Defense Communication Agency. This position required complete knowledge of testing equipment, microwave systems and communication equipment from telephone to computer data links. Duties also entailed directing repair personnel, pre-empting and rerouting decisions, record administration and reporting. Secret Security Clearance.

April 1967 to September 1967

Aerospace Engineer

Engineer for TRW Corp. Spaceflight Operations Department Missions Operations Section/Houston Texas

Responsibilities included: Flight Parameter Dispersion Analyses for Contingent Orbit Insertion-Mode IV Abort Sequence-Apollo Mission.

Historic Restoration Architecture and Engineering

Master plans for Historic Court Houses

Wheeler, LaMar, Newton, Rains, Navarro, Van Zandt, Rusk, Eastland, Stevens and Hutchinson

Fire Damage stabilization plans

Restoration/Renovation plans

Wheeler County Courthouse, Rains County Courthouse
Navarro County Courthouse, Newton County Courthouse (95%)
LaMar County Courthouse

Consulting Engineer

Design Manufacturing and Commercial Facilities:

Size ranges to 3,000,000 sf. Projects designed include steel, wood, and masonry buildings, crane ways, sewer systems, industrial waste surveillance systems, site development, roofing systems, waterproofing, mold and radon mitigation, and green buildings. Types of industries involved include auto parts, airport facilities, cable, foil products, cereal products, adhesives, metal plating, wire products, insurance, communications, supply houses, paper mills, steel fabrication, truck repair, warehousing, and government. Clients include: General Motors, Bell South, AT&T, Kraft Foods, Building Technology Associates, Ralston, Menasha Paper, ISRI, Johnson Controls, McKinney Aviation Texas Instrument Corp., TIG Insurance, Nationwide Insurance, Dallas I.S.D., Post Foods, Lockheed Martin, Welch Foods, and Byrds Landing just to name a few of the four thousand projects completed, Airport Design: W.K. Kellogg Airport taxiway. Engineer of record for W.K. Kellogg Co. Corporate Hanger.

Forensic Engineer

Investigations of structural conditions for bridges, residential homes, commercial, and municipal buildings. Over 1,000 forensic investigations including buildings damaged by the Oklahoma Federal Building bombing and Hurricane Katrina damage in Florida, Texas and Louisiana.

Construction & Site Management

Project, site manager or field quality monitor manager
Bell South over 100 building projects.
General Motors over 70 building projects.
Lockheed Martin Michoud Assembly Facility-New Orleans, Louisiana
30 million dollar roof project which survived hurricane Katrina
Johnson Controls-factory remodel

Vice President of Wolverine Feeder Co.

Contractors for construction, site management, waterproofing, roofing, radon mitigation, and epoxy injection. Quality control observation for roofing and waterproofing. Clients include General Motors, U.S. Government, Department of Energy, Skanska USA, and Building Technology Associates.

Construction Company President

Industrial Plant Construction

Project Manager for construction of auto related industrial plants for foreign and national corporations. Responsible for construction and designing on design/build contract from initial ground clearing to machinery setting. Managed multi million dollar contracts for new facilities and additions.

Various Construction Projects

Including firewalls, elevators, and construction for telephone utility, code enforcement for buildings, insulating projects, roofing, waterproofing, mold remediation, radon mitigation, park development, demolition, structural steel erection, and dam construction.

Former City Engineer – City of Battle Creek, MI

Engineering – Directed staff of 12-20 civil, structural, sanitary and traffic engineers and technicians. Budgeting – Responsible for the budgets of Engineering, Traffic, major and local street construction, outside services and EDA Grants. Experience on bargaining team in union negotiations.

Professional Attainment:

- Registered Professional Engineer in the states of Michigan, Texas, Indiana, South Carolina, Ohio and Oklahoma
- Member of the National and Michigan Societies of Professional Engineers.
- Member of the National Historic Society
- Past Chairman of Battle Creek Area Transportation Committee
- Past member of the Battle Creek Engineers Club
- Past member of the Elderly and Handicap Transportation Committee
- Past member of American Waterworks Assoc.
- Past member of the Battle Creek Board of Realtors
- Past member of the Battle Creek Rotary Club
- Two Term President of the Battle Creek Ski Club
- Director of the Battle Creek Ski Club
- Past professional member of the American Institute of Steel Construction
- Member of NABIE (National Academy of Board Certified Engineers)
- Student Pilot-solo
- Member of NFIB
- Member of ACFEI (American College of Forensic Examiners)

Education:

University of Michigan	
Master of Science in Engineering Mechanics	Ann Arbor, MI (1967)
Bachelor of Science in Aerospace Engineering	Ann Arbor, MI (1971)
U.S. Army Signal School	Fort Monmouth, NJ
Electronics Technician and Instructor	
Secret Security Clearance	
Kellogg Community College	Battle Creek, MI
Management Courses	
Private Pilot Training	
Flint Junior College (Mott)	Flint, MI
Associate of Science Degree	

Continuing Education

Kirby Metal Building Systems Training Design of pile foundations & design of pile walls	Structural design for permanent wood foundations & mechanical prop. for wood.	Stachybotrys (black mold) Mitigation and Awareness Training	Waterproofing Investigation and Solving water intrusion problems
Dale Carnegie Courses Mass concrete structures	Building Envelope Insulating Air Barrier	Investigate Water leakage in Monumental Masonry bldgs.	Radon Mitigation and control
Quality Management	Building Façade construction practices	Tested Safe2Work	Creative code compliance for Fire safety, Security and Accessibility
Asbestos Training	Wood Pile to Beam connections	Slate roof assemblies	
Heating, Ventilation & A/C systems Wood door specification & construction	Selective window glazing Construction documents primer Causes of distress & deterioration of concrete	OSHA/fall protection & Stairways & Ladders Scaffold use in the const. industry Hazardous Materials Training	RISA Basics of Structural Modeling RISA Advance Structural Modeling
Structural integrity & requirements for concrete	Basics & Advanced structural modeling	National Trust for Historic Preservation	Assoc. of Energy Engineers, Lighting Efficiency Training
Structural Analysis of Historic Buildings Investigations & Forensic Engineering	Historical Restoration Conferences in Washington and New Orleans	Lighting Historic Places Basics of Failure Investigations & Forensic Engineering	Piles for Settlement Prevention, Stabilization & Restoration
Restoring interior finishes & Architectural	Identifying & understanding wood in historical structures	Historic Plaster conservation, repair, reproduction &	Historic Stone, Terra Cotta patching & Clay

Ornament		restoration in historic theatres	Tile roofing
Introduction to historic building materials	Repointing the late 19th & 20th Century Bldg.	Technical, Legal & Practical issues in Chimney restoration	Stone & Tile flooring
Solving Water Intrusion and Mold Problems	Understanding Flow and Erosion NPDES Phase II	Practical Steel Design: 2-20 Stories AISC	Simpson Strong Tie Anchor System seminar
National Preservation Institute Design solutions with engineered wood	An Introduction to Historic Building Materials	Concrete repair basics Leak detection for Roofs	Controlling storm-water discharge w/underground detention/retention
Effective Drainage channel stabilization & design w/turf	Urban heat island effect Elec. Power plant design	Design & constr. For Earth & Rock fill Dams	Evaluation & repair of resident foundations
Bearing capacity of soil	Repair of rigid pavements Bridge insp., maintenance & repair	Nitrogen Oxides/Why & How they are controlled	ADA & Architect Barriers Act & Assess
Ice forces on structures	RISA Dynamics/Response Spectra Analysis	EPDM restoration systems	Cooling Bldgs. by Natural ventilation
Rock ridge Elem. Case study –Value Engineering	Foundations in areas of frost penetration	Distillation & Condensation Tech	Fire Protection Engineering for Bldgs.
TX engineering practice rules	Noise control in Bldgs.	Ethics for Engineers	Foundations for structures
AIA design of golf clubhouses	Indiana ethics for engineers	Indiana State Board Statute & Admin Rules	Advanced waste water treatment
Indoor air quality	Platform for solar tech.	Ludowicki roof tile	Florida Laws for P.E.'s
Maryland P.E.	Build radon resistant homes		