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ROBERT P. MCCORMACK, P.E.

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Mr. McCormack has over 30 years of professional experience. Most of that has been in project management, design and construction of various projects in the combined fields of civil, environmental, and mechanical engineering. Typical projects include commercial and residential structures, water and wastewater treatment plants, utility distribution and conveyance systems, site assessments, water resource planning and studies, plumbing systems, swimming pools and transportation structures. Mr. McCormack also has considerable experience in forensic work in the areas of construction and contracts, water and wastewater issues, structural evaluation, environmental and civil engineering.

Areas of Specialization

Construction & Construction Management
Civil Engineering
Public Works Design & Construction
Environmental Engineering
Water & Wastewater Treatment and Conveyance
Water Resources Management

Education

B.S., Thermal and Environmental Engineering
Southern Illinois University, 1973

Licenses and Certifications

Registered Professional Engineer, MO – License # 020244, Expires 12/31/10
Registered Professional Engineer, IL – License #062-036855, Expires 11/30/11
Registered Professional Engineer, KY – License # 11559, Expires 6/30/10
NCEE Certificate
Several Environmental Certifications

Other

Serves on the City of Creve Coeur, Storm Water Committee
Previously served on the City of Creve Coeur Building Commission Board of Appeals
Has been City Engineer for several communities

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*Providing Clear Answers
Through Insights and Multidisciplinary Excellence*

	COLORADO	FLORIDA	ILLINOIS	LOUISIANA	MISSOURI	TEXAS

REPRESENTATIVE PROJECT EXPERIENCE

FORENSIC, EXPERT WITNESS, AND INVESTIGATIVE EXPERIENCE AND SKILLS (Typical Projects, Owners not named)

Stormwater Management: Assist in determination of cause and responsibility for drowning in municipal stormwater drainage system. Project involved code and regulatory issues as well as review of design, construction and management standards.

Mold and Water Investigations (Several Projects): Determine cause of mold and water intrusion in residential, commercial and institutional. Several stucco and EIFS system failure projects.

Structural Stabilization (Multiple Projects): Work with insurance companies and contractors to evaluate damage and prepare plans for temporary structural stabilization after fires, storm damage or other types of structural failures. Prepare complete reconstruction plans on many of the projects.

Structural Failures due to Pavement Movement: Evaluation of structural failures due to movements of flat surfaces and streets.

Retaining Walls (Multiple Projects): Evaluation of retaining wall failures. Prepared plans for reconstruction.

Foundation Settling (multiple projects): Evaluation of geologic reports, foundation movement and collapse, foundation settling, water related foundation failures, and foundation design issues. Several projects have required redesign of the foundations.

Construction Issues (Several Projects): Routinely work with owners, adjusters, insurance companies and attorneys on interpretations and responsibilities of general and subcontractors, OSHA requirements, and other contract-related issues and constructability issues.

Building Collapse: Determine the cause of a building collapse during demolition of an adjacent building.

Basement Cracking and Settling (Several Projects): Evaluated cause and extent of foundation settling at residences and commercial structures. Such causes as water and sewer main leaks and collapses, mining, sinkholes, construction and rodent undermining have all been factors in many projects.

Truss Inspections (Several Projects): Inspection of broken trusses after wind damage, fire damage, overloading, and virtually every other cause. Projects involve evaluation and often involve redesign.

Roof Inspections (multiple projects): Evaluations of roofs of large commercial buildings to determine extent of damages due to hail and wind storms. Some projects included preparation of specifications and plans to repair damage.

Building Collapses due to Ice and Snow (Several Projects): Evaluation of cause of collapse and redesign of facilities.

Foundation Evaluation after Fire: Evaluated structural integrity of foundation at large manufacturing complex after a fire.

Complete Structural Evaluation (Several Projects): Evaluate structures of all types. Some are evaluations prior to restoration, some are to inspect work of contractors; others are to inspect damage due so various factors.

Structural “as-built drawings” (Several Projects): Prepare plans for existing structures. These are typically used to modify the structure, plumbing or electrical systems.

Restaurant Fire (multiple projects): Structural evaluation of buildings that were damaged by fire. Many projects have included preparation of plans and specifications for restoration.

Pump Station Failure (Several Projects): Determine extent and origin of damage to water system and customers after failure of potable water pump stations.

Hydrostatic Water Pressure Damage to Gymnasium: Determine cause and origin of water intrusion in basketball gymnasium. Determined that water was due to back-up of plumbing and failure of the hydrostatic relief system.

Wastewater Treatment Plant Failure (Several Projects): Determine cause and origin of failed mechanical and electrical equipment at wastewater treatment plants.

Storm Water Pump System Failure: Evaluate system failure the subsequent flooding as a result of the failure of a large combined sewer pumping station.

Plumbing Leaks (Several Projects): Determine cause and origin of plumbing leaks in commercial buildings and private residences. Evaluate extent of damage due to leaks.

Utility Construction (Several Projects): Many projects have included poor design, faulty construction, cave-ins, construction contract issues, settlement, specification interpretation, code issues, damage to structures as a result of construction and construction responsibility disputes.

Combined Pump Station Failure (Multiple Projects): Determine cause of pump station failure and associated management issues with regard to protocol and

responsibility.

Window Leakage (Multiple Projects): Evaluation of window and door leakage

Church Fires (Multiple Projects): Determine extent of fire and water damage to church after fires. Some projects have required remedial stabilization, then redesign of facilities for restoration.

HVAC Inspection (Several Projects): Evaluation of rooftop units after fires and hail-storms.

Vehicle Damage from Hail (Multiple Projects): Inspection vehicles to determine damage (if any) from hail or other causes.

Hail Damage (Several Projects): Have evaluated extent of hail damage to siding, stucco, roofing of all types, concrete, asphalt and virtually every type of surface that exists.

Billboard Failure: Determined cause and origin of billboard failure.

Gas Storage Tank: Large compressed gas facility experienced explosions and extensive damage to facilities. Projects included assessment of damages, preparation of plans for repair of damage, design of new gas storage tank support structure, evaluation of building for code and structural upgrade.

Country Club Fire: Determined extent of structural damages and prepared plans for restoration of clubhouse that had been damaged by fire. Included testing of remaining structural components.

Apartment Fire Damage Assessments (Several Projects): Determine extent of damages and prepare plans for repairs.

Code Issues (Several Projects): Evaluate structures and plans for code compliance with International Building Code, Uniform Building Code, Residential Codes and various local codes. Design upgrades for structures for compliance with safety and ADD codes.

Storm Damage Evaluations (Several Projects): Evaluate damage and remedial repairs to structures of all types. Often reconstruction plans are prepared.

Swimming Pool Evaluations (Several Projects): Determine cause of pool piping and structural failures. Some projects require preparation of repair plans.

Floor Damage Evaluation (Multiple Projects): Determine extent of damage to gymnasium floor and provide recommendations for restoration.

Blasting Damage (Multiple Projects): Evaluate structural damage that was caused by or allegedly caused by blasting.

Geologic Issues (Multiple Projects): Evaluated various types of geologic issues such as: Assist building owners in restoration of sinkholes, sliding, settling and erosion.

Ice machine failure: Determine cause and extent of damage resulting in a failed ice-making machine.

Sprinkler System Investigations (Several Projects): Evaluate sprinkler systems (dry, wet and kitchen type) after failures or due to freezing and mechanical issues.

Sewage Backup into Convention Center: Investigated combined sewage back up into large convention facility. Issues included plumbing codes, state regulatory mandates, construction mistakes and several interpretive issues with sewer owner.

Sewage Collection System (Multiple Projects): Involved in determination of responsibility for damage to structures caused by sewer system failure

Boiler Explosion: Investigated damage to public building HVAC and plumbing systems after a boiler explosion.

Water Mains (Several Projects): Determine location, extent of damage and cause of water main breaks on public distribution systems and internal plumbing systems. Determine causes of water hammer, pump failures.

Construction Issues: Worked with insurance adjuster on establishing extent of claim and associated costs after a failure at a large cofferdam.

Complete Utility Destruction. Involved in the investigation and documentation of damage to public water and wastewater treatment and pumping facilities following major hurricane.

Water Treatment Plants (Multiple Projects): Determine adequacy of design of plants, contractual responsibility of engineer and contractor and errors and omissions evaluations.

WASTEWATER TREATMENT PLANTS

Industrial Treatment Plants: Primary design responsibility for industrial treatment plants, including specification preparation, contract preparation, bidding and construction supervision and/or observation. Some plants, served as construction manager or contractor. Representative industry /client type follow:

- Energy conversion
- Scrap yards
- Metal recycling
- Foundries
- Hazardous waste processors
- Poultry processing
- Power plants
- Lubricant Manufacturer
- Foam rubber manufacturer
- Wood preservative facility
- Tire manufacturers
- Printing plants
- Carpet manufacturing
- HVAC equipment manufacturer

Domestic Treatment Plants: Primary design responsibility for domestic treatment plants, including specification preparation, contract preparation, bidding and construction supervision and/or observation for over 50 plants. Some plants, served as construction manager, consultant or contractor.

WATER TREATMENT PLANTS: Primary design responsibility for over 25 domestic treatment plants, including specification preparation, contract preparation, bidding and construction supervision and/or observation. Some plants, served as construction manager, consultant or contractor.

PUMP STATIONS: Primary design responsibility for water, wastewater, storm-water and backwater from seepage, including specification preparation, contract preparation, bidding and construction supervision and/or observation in several states. At some pump stations I served as construction manager, consultant or contractor. Have been involved in hundreds of standard lift and pumping stations.

OTHER ENVIRONMENTAL PROJECT EXPERIENCE (See Detail Supplements)

- Storm water management plans
- Utility system design (water, wastewater, storm water systems)
- Pressure sewer sewage collection systems
- Wastewater facility plans
- Master planning for large area systems
- Subdivision design (utilities, streets, drainage systems)
- Water distribution system planning, construction and design
- Spill containment plans
- Phase I, II & III assessments and remediation
- Water storage tanks
- Municipal and private swimming pool design
- Non-point pollution studies

- Flood management studies and design of facilities

OTHER MISCELLANEOUS PROJECTS

Was involved in several diverse projects in transportation design, planning and construction as well as other types of projects:

- Inventory of state prison facilities
- Assessment of state owned dams
- Subdivisions
- County and state bridges
- Retaining walls
- Design and construction of building plumbing systems
- Cell towers