



HALLIWELL

WILDON MENEZES, P.E.

FORENSIC ENGINEER,
MECHANICAL ENGINEERING SERVICES

DALLAS/FT. WORTH, TX

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SPECIALTIES

- Forensic Cause and Origin Evaluations and Remediation Support
- Mechanical Equipment
- Machine Failures such as CNC machines, elevators, bottle blow molding machines, etc.
- Building HVAC Systems
- Chillers and Boilers
- Building Plumbing Systems
- Building Energy Analysis
- Building Cost Estimation
- Lift Station Evaluation
- Building Code Compliance
- Flood Damage
- Hail Damage
- Building Water Intrusion and Condensation Evaluations
- Sewage and Stormwater Pump Systems
- Subrogation
- CAT Response

BIOGRAPHY

Wildon is a Mechanical Engineer with a master's degree from Southern Methodist University and holds P.E. licensure across 41 states. He specializes in forensic engineering, HVAC, and plumbing design, with extensive experience evaluating mechanical system failures across residential, commercial, and industrial properties. His expertise includes technical energy analysis, load calculations, and multidisciplinary coordination. Wildon has led forensic assessments on a wide range of projects, including fire pump failures, pump station malfunctions, water intrusion, hail and flood damage, HVAC system losses, and plumbing leaks. His work supports subrogation claims, repair recommendations, and system resilience improvements, consistently upholding high engineering standards.

QUALIFICATIONS

M.S. Mechanical Engineering, Southern Methodist University

B.E. Mechanical Engineering, Visvesvaraya Technological University

INDUSTRY CERTIFICATIONS, LICENSES AND MEMBERSHIPS

- Licensed Professional Engineer, 41 U.S. states
- LEED Green Associate, U.S. Green Building Council

PROFESSIONAL EXPERIENCE

- Halliwell, Forensic Engineer, Mechanical Engineering Services
- Ernst and Young, Senior Analyst

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- ARCXIS, HVAC Lead & Plumbing Designer
- AIMusbokat Steel Casting Co., Sales Engineer

REPRESENTATIVE ASSIGNMENTS

Lift and Pump Station

St. Pete Beach | St. Petersburg, FL

Evaluation of sewage and stormwater pump systems across multiple cities following damage sustained during Hurricane 2024, which affected pumps and supporting equipment such as odor control systems and pressure transducers due to flooding, sand intrusion, and power surges. Determined the condition of each pump station component, identified whether repair or replacement is warranted, provided detailed cost estimates for both options, and developed cost projections for associated Incidentals to the Work (ITVs).

Rotating Biological Contactor System

NW Harris County MUD #9 | Cypress, TX

Wastewater treatment facility. Responsible for evaluating the structural and operational integrity of a rotating biological contactor (RBC) following extensive damage caused by hurricane-induced flooding. Provided a comprehensive analysis of the mechanical and biological components of the RBC to determine the extent of the damage and recommend necessary repairs and mitigation strategies.

Chiller System Failure

HYATT Place | Washington, DC

Subrogation. Provided detailed evaluation of a chiller system at a commercial property. Determined the extent of compromise due to improper maintenance practices by the building owner and/or substandard repair work executed by the HVAC contractor. Provided a thorough analysis of the chiller's operational parameters, maintenance records, and repair history to identify the root cause of the system's failure and to support the subrogation claim.

Flood Damage

Bluegreen Vacation - Milton | Multiple Locations in FL

Damage assessment to Hilton Hotels on Florida's west coast after Hurricane Milton. Evaluated HVAC equipment affected by flooding, including water heaters, PTACs, condenser units, air handler units, and rooftop units. Assessed pool equipment (boilers, filtration systems, and pumps). Distinguished between flood damage and maintenance issues, and provided recommendations for repairs or replacements.

Hail Damage

A&S Properties, Inc | Hurst, TX

Evaluated the damage caused by hail to the HVAC units on the roofs of several retail buildings. Assessed the extent of coil flattening and the overall condition of the fins. Created a property map that identified each unit, its details, coil face exposure, and the necessary restoration actions due to hail damage. Tested a sample of units to see if combing the coils was possible.

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Building Water Intrusion

Inspired Healthcare Capital, LLC | St. Petersburg, FL

Assessed the damage caused by Hurricane Milton at a memory care and assisted living facility. Identified storm-created openings and differentiated them from wind-driven rain that allowed water to enter the building through rooftop units (RTUs) and spread throughout the building via the duct system.

Condensation Issue in Pool Room

Summit Hotel Properties | Dallas, TX

Assessed damage caused by ceiling condensation at a hotel pool room. Evaluated the mechanical equipment, including the pool heater, the packaged pool dehumidifier, and associated ductwork. Identified areas with lower temperatures and checked the functioning of the dehumidifier and ductwork to ensure they effectively removed moist air from the room. Sized the dehumidifier to determine the appropriate capacity needed.

Elevator Loss

Amalgamated Hospitality Management | Conway, AR

Assessed a damaged elevator controller board caused by water damage due to a higher humidity level in the elevator room at a hotel. Evaluated the elevator power unit, controller box, and HVAC equipment that conditions the elevator room and the adjacent pool room. Assessed the mechanical equipment inside the elevator pit, under and above the elevator car, and the car operating panel for compatibility with the new elevator controller.

Fire Pump Loss

Brookfield Properties | Conway, AR

Assessed fire damage to a diesel-powered fire pump located in the pump room of a commercial property. The pump was unexpectedly activated without any sprinkler head engagement, triggering automated alerts to property management and fire monitoring personnel. Performed a post-incident inspection of the pump room, confirmed no sprinkler activation, and traced the root cause to a false low-pressure reading in the sensing line.

Water Closet (flush toilet) Leak

Anchor Built | Albuquerque, NM

Assessed water damage on a garage wall caused by leaks from wall-hung toilets installed in adjacent bathrooms of a residence. Homeowner had observed bubbling paint and organic growth on the garage wall, which shares a structure with a powder room and a full bathroom. Conducted water pressure testing and moisture meter readings, and evaluated the installation of the wall-hung toilets to determine whether external stress may have contributed to the leaks.