

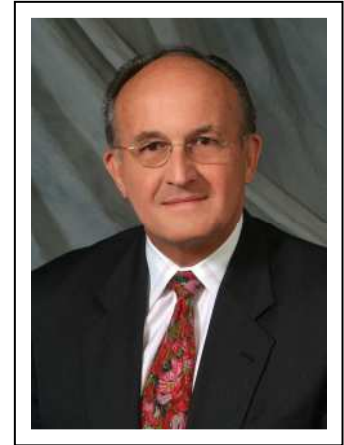
A. James Partridge, P.E.

Owner – James Partridge Consulting, LLC

Forensic Engineers

President – James Partridge Associates, Inc.

Owner – ZERODRAFT of Southeast Michigan



CURRICULUM VITAE

1981 to Present:

James Partridge Consulting, LLC (8/2001 to present)

Owner

Responsible for all evaluations, investigations, forensic analysis and construction field administration.

James Partridge Associates, Inc. (2/1981 to present)

President

Responsible for all planning, organizations, fees, scheduling, and engineering. Direct control of all engineering design for institutional, industrial, health care and residential projects. Client contacts, sales presentations, and construction administration.

ZERODRAFT of Southeast Michigan (6/2006 to present)

Owner

Specialist contractor and consultant on new and renovation projects, using air sealing techniques to eliminate outdoor air infiltration through the habitable environment envelope.

1972 to 1981:

Harley Ellington Pierce Yee Associates (3.5 years)

Mechanical Engineering Division Director (Partner)

Responsible for all mechanical systems design, specifications, cost estimates and related construction documentation requirements for hospitals, mausoleums, and computer facilities, industrial, residential, institutional and similar facilities. Responsible for heating and cooling load calculations, energy studies, sales presentations, client contacts, building condition surveys and construction field observations.

Alden B. Dow, Associates (2.5 years)

Engineering Administrator:

Responsible for all mechanical, electrical and structural systems design, specifications, cost estimates and related construction documentation requirements for banks, hospitals, correctional facilities, residential, institutional, recreational, entertainment facilities and other commercial buildings. Responsible for HVAC system selection, operating cost estimates, alternate fuel selections, sales presentations, client contracts and construction field observations.

Hoyem Basso Associates (2 years)

Associate:

Responsible for mechanical systems design associated with assigned projects including specifications for institutions, ice arenas, regional retail developments, zoological facilities, industrial complexes, recreational facilities and other diversified buildings. Also responsible for heating and cooling calculations, client contacts and construction field observations.

Prior 11 years of employment experience available upon request

Education:

BSME-Lawrence Technological University, 1970
ET- St. Clair College, 1961

Registrations:

Registered professional engineer in the following states: Michigan/1972, Ohio, Indiana, Illinois, Wisconsin, Arizona, North Carolina, Louisiana, Florida, California, Colorado, Minnesota, New Hampshire, Connecticut, Virginia, Washington, Pennsylvania and New York

National Council of Examiners for Engineering and Surveying (NCEES) certified

Certifications:

- o Licensed Residential Builder, Michigan, #2101192573
- o EDI (Exterior Design Institute) Certified Level 1 & 2 Building Envelope Consultant
- o Certified Water Damage Restoration Technician (IICRC)
- o Certified Applied Structural Drying Technician (IICRC)
- o Thermal/Infrared Thermography Level 1 "Theory"

Technical Society Memberships:

- o American Indoor Air Quality Council (IAQC)
- o American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- o American Society of Plumbing Engineers (ASPE)
- o The Association of Energy Engineers (AEE)
- o National Fire Protection Association (NFPA)
- o National Association of Fire Investigators (NAFI)
- o International Code Council (ICC)
- o Exterior Design Institute (EDI)
- o Institute of Inspection, Cleaning and Restoration Certification (IICRC)
- o National Conference of States Building Codes and Standards (NCSBCS)
- o National Roofing Contractors Association (NRCA)
- o Building Environment & Thermal Envelope Council (BETEC), National Institute of Building Sciences (NIBS)

Publications:

- Co-authored the following publications:
- o Economic Feasibility of Variable Speed Drives
 - o Operable versus Fixed Sash Window
 - o HVAC Replacement (44% Energy Cost Avoidance)

Presentations and Lectures:

- o Lawrence Technological University School of Architecture and Design - Part-time Teaching
- o University of Michigan - Energy Cost Avoidance in Buildings
- o ASHRAE Winter Meeting Dallas - Lumen Christi High School
- o World Energy Engineering Congress - Lumen Christi High School
- o ASHRAE Technical Seminars - Presentations
- o AIA Chapter Technical Meetings - Presentations
- o Mechanical Inspectors Association of Michigan - Continuing Education
- o Lorman Education Services - *"Solving Water Intrusion Problems in Michigan"*
- o United Auto Workers Legal - *"Mold: Causation and Remediation"*
- o Lorman Education Services - *"Solving Water Intrusion Problems in Michigan"*
- o Lorman Education Services - *"Advances In Environmental Mold Issues"*
- o University of Detroit Mercy/School of Architecture Continuing Education Conference - *"Mold, Codes, and Water Intrusion"*
- o Architectural offices (several) - *"Water Intrusion & Mold"*
- o American Society of Plumbing Engineers - Technical Presentation
- o Lorman Education Services - *"Reducing Liability Associated With Water Damage and Mold during Construction and Renovation in Michigan"*
- o Lorman Education Services - *"Mold Remediation and Water Restoration in Michigan"*
- o Mechanical Inspectors Association of Michigan - *"HVAC and Mold"*

- American Society of Plumbing Engineers - *“Legal Issues and Liabilities Regarding Mold”*
- Institute of Real Estate Management & Detroit Metropolitan Apartment Association - *“Air Sealing/Building Envelope Improvement”*
- AIA Detroit Chapter, ARE, M/E/P Facilitator

Seminars:

- Mold Seminar: US Army, Hawaii
- Building Enclosure Science & Technology (BEST) Conference, Minneapolis
- National Fire Protection Association (NFPA) Conference, Las Vegas: *“Fire & Explosion Investigations (NFPA 921)”*
- Conference, Bloomfield Hills, Michigan; *“What to do When Construction Projects Go Bad In Michigan”*
- University of Wisconsin; *“Water Entry Prevention and Moisture Control in Buildings”*
- Construction Dispute Resolution Services (CDRS); Mediation & Arbitration Training, Southfield, Michigan
- Institute of Inspection Cleaning and Restoration/DRI-EAZ: Applied Structural Drying Course. Examination taken, certification obtained.
- Mold Abatement Projects: *“The Remediation Strategy & Project Oversight”* - Presented by Mid-Atlantic Environmental Hygiene Resource Center (a program of the University City Science Center)
- DRI-EAZ: Restorative Drying Symposium
- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Trade Show and Conference
 - Seminar: *“Vapor Control Strategy: Placement and Permeance of Vapor Retarders”*
 - Symposium: *“Innovations and Advances in Room Air Distribution”*
 - Seminar: *“Certified Ratings for Energy Recovery Ventilation: What You Need To Know”*
 - Seminar: *“New Tools for Psychrometrics”*
 - Seminar: *“Mold, Mildew Mitigation in Construction”*
 - Seminar: *“Business Management for ASHRAE Members”*
 - Seminar: *“Codes & Standards: Perspectives About Commercial Kitchen Ventilation”*
 - Public Session: *“Residential and Small Building Humidity and Mold Control”*
 - Seminar: *“Humidification: Back To Basics”*
 - Seminar: *“Case Studies of Smoke Management System Application”*
- Michigan State University: *“The Role of the Expert Witness”*
- American Indoor Air Quality Council: Certified Indoor Air Quality Consultant. Qualifications to take course reviewed and accepted, examination taken, and certification obtained
- Update training on the State of Michigan Plumbing Code
- Institute of Inspection Cleaning and Restoration (IICRC): Certified Water Damage Technician. Examination taken, certification obtained
- Toxic Mold Environmental Conference (Ontario, Canada)

Water Intrusion/Mold Evaluations/Code and Construction Deficiencies:

- August 2001 thru April 17, 2009 - 350 Investigations

Investigations and Expert Witness Experience: (* denotes ongoing investigation)

2009

- * Pardy: Carbon Monoxide Fatality (Representing Plaintiff)
- * Detroit New Hope Hospital: HVAC coil rupture, Water intrusion (Expert for Hospital Insurance Company)
- * Brydges: Carbon Monoxide Fatality (Representing Defendant)
- * Bunchek: Slip and Fall (Representing Plaintiff)
- * Hillsboro Towers Condo Association (Florida): Water intrusion and mold representing Plaintiff)
- * Aberdeen Condo Association: Ice Damming & Water Intrusion and Mold (Expert for Condo Association)
- * Dittrich Furs: Water Intrusion at two facilities
- * Berbiglia: Residential Heating deficiencies (Representing Plaintiff)

2008

- * Airport Tower: Assess water intrusion sites (Representing Plaintiff)
- * Lasalle Apartments: Evaluate cause of electrical bus short-circuit (Representing Building Owner)
- Investaid Corporation: Evaluate boiler failure and frozen heating piping (Representing Insurance Company)
- Willits Condominiums: Evaluate alternate closed circuit evaporative cooler (Representing Plaintiff)
- Abbott Residence: Assess water loss causation (Representing Plaintiff)

- * Marriot Ocean Club, Aruba: Assess roof replacement, water intrusion, dehumidification and rainfall surcharge on roof. (Representing Condominium Owner's)
- * Jewish Federation, Independent Living Center/Hechtman: Assessing boiler and its contribution to the fire (Representing Plaintiff – Insurance Company)
- * Crush Restaurant: Evaluated demolition and remediation proposals (Representing Bank)
- * Cass Technical High School: Evaluate deficiencies in building heating, cooling and temperature controls systems (Representing Owner – Detroit Public Schools)
- * Angel Pocock-Smith (Deceased): Evaluating building courtyard and exterior walls (Representing Plaintiff)
- * Chrome-Craft: Evaluating ignition source of fire in chrome plating plant and cost of damages (Representing Insurance Company)
- * Portsmouth Apartments: Evaluating cause of microbial contamination in apartment (Representing Plaintiff)
- o Lytle Park Place Condominiums: Evaluate economic method of introducing outdoor air into residential condominiums (Representing Building Owner)
- * Braidwood Manor: Evaluating cause of 3rd degree burns on legs of paraplegic resident (Representing Plaintiff)
- * Independent Living Facility: Evaluating required vs. installed exiting safety measures with respect to dementia and hypothermia death (Representing Plaintiff)
- * Mold Exposure: Evaluating cause of illness as a consequence of exposure in building contaminated with mold.
 - o Henry Ford Estate: Assess water intrusion sites below balcony (Assisting Architect)
 - o Bates Street Parking Garage: Building Assessment (Representing Prospective Buyer)
 - o 400 Hamilton: Evaluate office building (Representing Prospective Buyer)
 - o Biltmore Condominiums: (Representing Defendant)
- * Lackie Residence: Evaluating water intrusion sites after new roof installed (Representing Plaintiff)
- o Clarke vs. ASI: Evaluated water loss & provided structural drying consultation (Representing Defendant)
- o Amerisure: Evaluated water loss and provided structural drying consultation (Representing Building Tenant)
- o Alioto Residence: Evaluated windows and water intrusion sites (Representing Plaintiff)
- o Desmaris Metal Roof: Evaluated installation deficiencies, water intrusion sites and excessive use of sealant (Representing Building Owner)

2007

- o Moss Residence: Water intrusion into basement (Representing Plaintiff)
- o Big Buck Brewery: Mold causation (Representing Defendant)
- o Bosch Rexroth: Evaluate building indoor air quality (Representing Tenant)
- o Clark Residence: Investigate bathroom water loss (Representing Defendant)
- o Builders Association: Headquarters building assessment (Representing Owner)
- o Huron Metro Park: Investigated cause and redesign of underground supply air ductwork failure (Representing Insurance Co.)
- o Woodridge Condo: Roofing Issue (Representing Condo Association)
- o Freeman Building: Water Loss, Frozen Sprinkler (Representing Insurance Co.)
- * Carol & Curtis Wagner Residence: Microbial Defacement in Attic (Representing Owner)
- o Toyota Marine: Investigated cause of chilled water coil rupture (Representing defendant – report issued)
- o Somerset Place II: Investigated cause of closed circuit evaporative cooler coil rupture (Representing Insurance Co.)

2006

- o Willits Condominiums: Evaluated adequacy of closed circuit evaporative cooling and piping. (Representing Plaintiff)
- o Aronoff Residence: Evaluated cause of sudden water intrusion. (Representing Insurance Co, report written)
- * Smillie Residence: Investigate cause of mold in condominium. (Representing Plaintiff – report written)
- o Reis Residence: Investigated cause of water intrusion. (Representing Insurance Co.)
- * Royal Oak Condominium Owner: Evaluated construction deficiencies. (Representing Plaintiff)
- o Rolls Refrigeration: Investigated installation of food coolers in grocery store. (Representing Defendant)
- * Hines Residence: Investigating death of Tenant purported to be from hypothermia. (Representing Plaintiff)

2005

- o Hospital: Evaluating mechanical, electrical, plumbing, and fire protection systems design and integration into the building (Representing Defendant)
- o Szmczak Residence: Evaluated construction deficiencies and probable contribution to mold contamination. (Representing Plaintiff – Arbitration Testimony)

- Feinbloom Residence: Evaluated construction deficiencies (Representing Plaintiff; Arbitration Testimony)
- * Andrews Residence: Evaluation of excessive carbon monoxide levels in apartment. (Representing Plaintiff – report submitted)
- * Fertz Residence: evaluated cause of mold in attic. (Representing Plaintiff)
- Hancz Residence: Evaluated cause of excessive carbon monoxide in apartment. (Representing Plaintiff – Deposition taken)
- Hutzel Plumbing: Evaluated boiler installation and purported deficiencies. (Representing Defendant – report issued)
- Colianni/ Indoor Air Quality: Evaluated HVAC system and building envelope for water intrusion (Representing Plaintiff)
- Diocese of Saginaw/ Indoor Air Quality: Evaluated high humidity levels throughout building (Representing Plaintiff)
- Guidot Residence: Evaluated boiler as probable cause of fire (Representing Defendant, Deposition taken)
- * St. John's Church: Evaluating HVAC system deficiency and establishing redesign requirements (Representing Plaintiff)
- Municipal Library/ Heating: Evaluated heating system deficiency (Representing Plaintiff, Deposition taken, Facilitation)

2004 and Prior

- Sharpe Residence: Evaluated construction deficiencies (Representing Plaintiff; Trial Testimony).
- Romeo District Library: Evaluated construction deficiencies (Representing Plaintiff, Arbitration Testimony).
- Crest Homes / Lelli's Restaurant: Rooftop mechanical systems analysis. (Representing Plaintiff; Arbitration Testimony).
- Crestwood Credit Union: Mechanical HVAC installation deficiency analysis and recommendations. (Representing Plaintiffs, Arbitration Testimony).
- Teasdale Residence: Evaluated construction deficiencies (Representing Plaintiff, Deposition taken).
- Trice/ Indoor Air Quality: Evaluated building HVAC systems (Representing Plaintiff, Deposition taken).
- Bays/ Boiler Flue Gases: Evaluated boiler flue gases in food manufacturing facility (Representing Owner).
- Dean/ Indoor Air Quality: Evaluated indoor air quality in high school (Representing Plaintiff).
- Dutton Irrigation: Evaluated water damage from reflecting ponds in office building (Representing Defendant).
- Hamburg Residence: Evaluated construction and HVAC deficiencies (Representing Plaintiff).
- Lipman Residence: Evaluated water damage and proposed reconstruction techniques (Representing Plaintiff).
- Nugent Residence: Evaluated construction deficiencies and mold sites (Representing Plaintiff).
- Rolls Refrigeration: Evaluated meat and product coolers refrigeration system (Representing Defendant).
- Umland Residence: Evaluated construction deficiencies and water intrusion (Representing Plaintiff).
- Wilson Condominium: Evaluated water intrusion and mold sites (Representing Plaintiff).
- Ya-Ya's Chicken: Evaluated water damage and mold contamination in a restaurant (Representing Defendant).
- Burke Building: Building Envelope evaluation (Representing Defendant).
- Silverman Builders: Furnace and attic ventilation (Representing Defendant).
- Silver Phoenix Office Building: Evaluate roof top unit installation and suitability for application (Representing Plaintiff).
- Medhealth Wellness Center: Excessive condensation in attic above pool and in walls surrounding pool in medical rehabilitation facility. (Representing Defendant).
- City of Birmingham Adams Fire Station: Fire station heating and ventilation deficiencies. (Representing Plaintiff).
- River Rouge Schools: Rooftop multi-zone units with high component failures. (Representing Plaintiff).
- City of Eastpointe Court Complex: HVAC systems deficiencies evaluation. (Engineer of Record and Plaintiff Expert).
- Andiamo West: Evaluation of HVAC system and code deficiencies. (Representing Plaintiff).
- Crawford Residence: Frozen piping/building damage/construction evaluations. (Representing Plaintiff).
- WF Miller Building: Roof collapse analysis. (Representing Defendant).

Investigations:

- Bates Street Parking Garage: Building Assessment (Representing Owner)
- Builder Assoc of Michigan: Building Assessment (Representing Owner)
- Horiba Co.: Water Hammer Evaluation (Representing Owner)
- English Gardens: Water Loss (Representing Roofing Contractor)
- Marty Mellin: Indoor air quality assessment (Owner)
- 400 Hamilton, Birmingham: Pre-purchase assessment (Representing Purchaser)
- Dickow Residence: Possible furnace deficiency (Representing Insurance Company)
- Arnoff Residence: Water loss investigation (Representing Insurance Company)

- Detroit Cornice and Slate Building: Evaluated heating system deficiency (Representing Owner).
- Burton International School: Expert for plaintiff
- Mini-Max Wash and Dry: Evaluated mechanical and potable hot water systems and potential damage from smoke generated by fire in space. (Representing Insurance company)
- Dollar World: Evaluated whether building fire was started from lighting or heating system. (Representing Insurance Company)
- Grosse Pointe Residence: Evaluated mechanical, electrical and plumbing systems in 16,000 SF home for compliance to contract documents. (Representing Home owner)
- Commercial Office Building: Evaluated pressure relationships in building served by central station multi-zone units and potential for migration of contaminants.(Representing Plaintiff)
- Industrial Building: Evaluated air-turnover ventilation system for code compliance and vibration isolation. (Request by owner)

Building Systems Analysis Experience:

- Silver Phoenix Office Building: Evaluation of Replacement Rooftop Unit.
- TRW—Air Bag and Seatbelt World Headquarters: Evaluation of Building System Capacity for Chemical Laboratory Relocation.
- Jimmy's Restaurant: Kitchen Exhaust and Make-Up Air Systems Evaluation.
- Frankel Residence: Envelope, Humidity and Wall Condensation Evaluation (Museum Quality Environment).
- Bloomfield Hills Country Club: Evaluation of Excess Heating Condensate Loss.
- Grand Residence: Analysis of Indoor Pool HVAC System and Moisture Migration.
- Grand Rapids Skywalk Roof Icing: Evaluation and Recommendations to Eliminate Large Icicles on Skywalk Roof Eave.
- City Of Royal Oak Library: Analysis of HVAC and Life Safety Issues.
- Cranbrook Educational Community/Academy of Arts Building's: Mechanical and Electrical Systems Analysis of Historic Buildings.
- Kelly Services Headquarters Building: Kitchen Ventilation Systems Analysis.
- Kelly Services Headquarters Building: Building Central Air Distribution System Evaluation and Recommendations to Increase Capacity.
- Onyx Skating Center-Rochester Hills: Building Envelope Condensation Site Analysis and Consultation.
- Michigan State University Munn Ice Arena: Outside Air and Environmental Dehumidification Evaluation.
- Palace of Auburn Hills: Maintenance Shop Paint Hood and Ventilation Analysis.
- City Of Birmingham Pierce Street Parking Deck: Electrical Systems Analysis.
- Alibi Restaurant: HVAC Systems Analysis/Replacement.
- Suburban Hockey Training Center: Envelope Condensation Consultation.
- Mr. B's Rustic Tavern: Make-Up Air and Kitchen Exhaust Analysis.
- Cranbrook Educational Community/Kingswood School: Ventilation and Egress Evaluation.
- Somerset Inn—Troy: Kitchen Plumbing System Evaluation.
- Pulte Homes Data Center: Emergency Generator Capacity Evaluation.
- Federov Residence: Evaluation of Indoor Pool Envelope Deterioration and Mold Migration.
- Milliken Mill, Georgia: Evaluation of High Temperature Oil Distribution System.
- Coyne Residence: Evaluation of Outside Air Introduction and Fireplace Back-Drafting.
- Country Club of Detroit: Complete Building Systems Evaluation.
- Meadowbrook Country Club: Kitchen Ventilation/Cooling System Analysis.
- Ward Church: Plan Review of Mechanical and Plumbing Contract Documents for New Facility.
- City Of Southfield Fire Station #1: Code Evaluation of Fire Station Ventilation Systems.
- City Of Southfield Fire Station #2: Evaluation of Containment of Apparatus Room Products of Combustion.
- Algonac High School: Evaluation of Kitchen Ventilation Systems.

Additional Projects Experience Prior To 1992 Available Upon Request.

AREAS OF EXPERTISE

- o Air Quality
- o Air Conditioning
- o Alternative Dispute Resolution
- o Attic Moisture and Mold
- o Basement Leaks
- o Building Envelope Analysis
- o Building Code Compliance
- o Building Code Violations
- o Building Code Envelope Issues
- o Building Inspection
- o Building Condition Assessment
- o Building Code Standards
- o Building Survey/Existing Conditions
- o Commercial Litigation
- o Condensation
- o Condition Assessment
- o Construction Administration
- o Construction Codes
- o Construction Defects
- o Construction Dispute Resolution
- o Contract Document Analysis
- o Contract Compliance
- o Dehumidification
- o Design Documents
- o Document Examination
- o Drainage Failure
- o Engineering Investigation
- o Engineering Design
- o Engineering HVAC
- o Engineering Investigation
- o Engineering Mechanical
- o Expert Witness testimony
- o Explosion Investigation
- o Fire Investigation
- o Fire Sprinkler Systems
- o Gas Systems
- o Ghosting/soot damage
- o Heating
- o Heating and Cooling Systems
- o Hot Water (Potable) Systems
- o Heating, Ventilating and Air Conditioning (HVAC)
- o Ice Damming and Damage
- o Indoor Air Quality Investigation
- o Industrial Piping
- o Infrared Thermography
- o Leaking roofs
- o Mechanical code
- o Mechanical systems failures
- o Moisture Damage
- o Mold and Mildew Damage
- o Plumbing Code
- o Plumbing Systems
- o Preliminary Evaluations
- o Psychrometric Analysis
- o Roof Drainage
- o Roof Leaks
- o Scald Injuries
- o Swimming Pool Dehumidification
- o Water Intrusion
- o Water Vapor



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