



PROFESSIONAL ENGINEERS- PERSONAL SERVICE

Midwest Engineering and Design is an engineering consulting firm providing Mechanical, Electrical, Plumbing, and Fire Protection design drawings and services for commercial, industrial, and institutional facilities.



- College Facilities
- Schools/Churches
- Business/Office Buildings
- Medical Facilities
- Industrial Facilities
- Automotive

Our goal is to provide personal service to each of our clients, regardless of the size or scope of the project. Our design staff will treat your project with personal attention to help make the design process go smoothly and efficiently, with professional results.

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ABOUT US

Midwest Engineering and Design was established in 2003 with a goal of providing high quality, local, Mechanical, Electrical, Plumbing, and Fire Protection design services. We feel strongly that site visits are a crucial part of the design process. This is typically not possible when the project is located hours away. It is for that reason we have focused on local projects, with more than 95% of our work coming from Columbia and the surrounding area. By focusing on local work we have also achieved the added benefit of generating a good working relationship with the local architects, utility engineers, code officials, distributors, and contractors.

We are a progressive firm, utilizing the latest design technology and software to provide the highest level of service to our clients. With the use of advancing technologies we are able to provide more precise designs, within budget, and on time.

We strive to add value to every client's project by improving the final result while making the most of the money spent.

SUPPLIER DIVERSITY

Midwest Engineering & Design is a Veteran owned firm and happy to help support supplier diversity. We are also able to sub-contract mechanical design services through Siebeneck Engineering, a WBE certified Mechanical Engineering firm owned and operated by Tracie Siebeneck, our Senior Mechanical Engineer. Because of our 15 year working relationship, any sub-contracted work is done in a seamless manor.



ENGINEERING DESIGN SERVICES

Mechanical Engineering Design

Heating, Ventilating, & Air Conditioning (HVAC)

- Forced Air Heating & Cooling
- Hydronic Heating & Cooling
- Geothermal Heating & Cooling
- Radiant Heating

DDC Temperature Controls
Battery Plant)

Commercial Kitchen Exhaust

Energy Recovery Systems

Refrigeration

Energy Studies

Plumbing Engineering Design

Domestic Water Piping

Waste & Vent Piping

Gas, Medical Gas

Compressed Air

Process Piping Systems

Rain Water Capture

Landscape/Irrigation/Fountain Design

Sanity Sewer Scoping

Underground Piping locates

Life Safety / Fire Protection Design

Commercial Hood - Fire Suppression

Fire Alarm System

Security System

Nurse Call systems

Emergency Lighting

Electrical Engineering Design

Power Distribution

Lighting Calculations & Layout

Parking Lot Lighting

Sport Field Lighting

Lightning Protection/Grounding

Stand-by Power (Generator or

Transient & Harmonic Study

Communication Systems (Voice/Data)

UPS ATS (Automatic Transfer Switch)

STS (Static Transfer Switch)

Data Logging

Arc Flash Calculations and Labeling

Protective Device Coordination

Short Circuit Calculations

One-Line Diagrams

Power Factor Correction

Controls

Construction Administration

Contract documents

Construction cost estimation

Shop drawing review

Site visits and construction monitoring

Construction punch lists



TEST SERVICES

Midwest Engineering and Design stands out from other engineering firms by having extensive field experience as well as the ability to perform many on-site tests of existing Mechanical, Electrical, and Plumbing systems. This has proven particularly important when modifying existing structures.

Mechanical Test & Diagnostic Equipment

- Air Balance hood
- Hot wire Anemometer - air flow tester
- IR temp sensor
- IR camera
- Wet bulb/dry bulb temperature sensors
- Humidity sensors
- Laser RPM meter
- Refrigeration service and diagnostic equipment: Gages, Vacuum pump, Refrigerant recovery system

Plumbing Test & Diagnostic Equipment

- Sewer Camera with digital recorder and sonde locator
- Below grade pipe locator
- Sewer pressure data logger
- Water pressure gage
- Water quality sensor

Electrical Test & Diagnostic Equipment

- Power quality data logger
- IR camera
- Below grade wire/conduit locator
- Circuit Tracer
- Ground resistance test equipment
- MegOhm test meter
- Voltage/amperage meters
- RF and EMF meters
- Laser Distance finder
- Light level meter



DESIGN TEAM

James L. Dove, PE

Principal

A licensed, Professional Engineer and licensed Master Electrician, with a BS degree in Electrical Engineering obtained from Montana State University, Bozeman. Mr. Dove has over 22 years of professional experience in the design of commercial, industrial, and institutional building electric systems, with specific skills in project management. Jim has extensive field experience in both electrical and mechanical systems.

Tracie L. Siebeneck, PE

Senior Mechanical Engineer / Project Manager

Principal of Siebeneck Engineering (State certified WBE)

A licensed, Professional Engineer with a BS degree in Mechanical Engineering from the University of Missouri, Columbia. Mrs. Siebeneck has over 20 years of professional experience in the HVAC industry. She specializes in building load calculation, equipment selection, system control, and air distribution system layout. Special attention is given to occupant comfort through detailed analysis of air movement throughout the building. Additional experience includes energy recovery equipment design as well as clean room filtration equipment design.

Guy E. Stroud

Design Engineer / Project Manager

A Mechanical Engineer with a BS degree from Valparaiso University. Mr. Stroud has 27 years of professional experience. His design experience includes HVAC, plumbing and fire protection design. His project experience includes university projects (dormitories, classrooms, laboratories and general campus system designs), commercial offices, restaurants/kitchens, industry facilities, apartment/assisted living, data centers and government projects. His experience also includes hospital and clinic projects involving Operating Rooms, Intensive Care Units, Palliative Care, Central Sterile, Catheterization Labs, Emergency Departments, Central Hospital Labs, MRIs and hospital generator installations.

Mark Skinner

Designer/Drafter

An Associate's degree in design drafting from Linn Technical College. Mr. Skinner has over 32 years of both office and field experience working in Architectural, Civil, Structural, & Electrical fields. Mark adds hands on experience that is so valuable in providing accurate and detailed information for the installation contractor.



CERTIFICAITONS

James L. Dove, PE is a licensed, Professional Engineer with the state of Missouri. PE Certificate/License No. 2002016644 and is good through 12/31/2020.

Tracie Siebeneck, PE is a licensed, Professional Engineer with the state of Missouri. PE Certificate/License No. 2013019114 and is good through 12/31/2020. Tracie also owns a State certified WBE engineering firm.

Midwest Engineering and Design, L.L.C. is a registered Professional Engineering Corporation with the state of Missouri. The original Certificate/License No. 2010032467 and is good through 12/31/2020.

Midwest Engineering and Design, L.L.C. has a Certificate of Good Standing from the Secretary of State's office, #LC0802319.

E-Verify from the Division of Homeland Security and received a MOU (Memorandum of Understanding) for Midwest Engineering and Design, L.L.C., Company ID Number 390681. (MOU provided upon request)

Midwest Engineering and Design, L.L.C. maintains both commercial liability and professional liability insurance both with policy limits of 1,000,000 per claim, and 2,000,000 aggregate. (Certificate of Insurance provided upon request)

PARTIAL LIST OF DESIGN EXPERIENCE

COLLEGE FACILITIES

UNIVERSITY OF MISSOURI (Columbia, MO)

Hearnes Center Locker Rooms HVAC upgrade
Dalton Cardiovascular Emergency Fixture Study
Veterinary Medicine New Ambulatory Teaching Facility
Life Science Business Incubator Emergency Generator Study
Academic Support Center, Suite 206 Renovation
Southwest housing's Center Convenience Store Renovation
Clydesdale Hall CPET / Rad Isolation
Student Fitness Center (Tanning Salon) – Renovation
Beta Sigma Psi – Renovate Existing Fraternity House
Lambda Chi Alpha – New Fraternity House
Delta Tau Delta – New Fraternity House
MU Coal Log Building - New Research facility (Midway, MO)
Advanced Technical Center - New construction (Mexico, MO)

COLUMBIA COLLEGE (Columbia, MO)

Student Dining Facility - Exhaust Hood Suppression
Delany Shelter – New Pavilion Electrical

WESTMINSTER COLLEGE (Fulton, MO)

Activities Building – New construction
Champ Auditorium - Service Upgrades
Sweazey Hall Dormitory - Renovation
Wetterau Hall Dormitory - Renovation
Weigle Hall Dormitory - Renovation
Newnham Hall HVAC - Renovation
Westminster Hall HVAC - Renovation
Westminster Gym HVAC - Renovation

CENTRAL METHODIST COLLEGE (Fayette, MO)

Howard Payne Hall – HVAC, Plumbing and Electrical Renovation
Woodward Hall - Renovation.
Burford Hall - Renovation
McMurry Hall - Renovation
Holt Hall - Electrical Service Evaluation

STATE TECHNICAL COLLEGE OF MISSOURI - (Linn, MO)

Nilges Hall – Elevator & HVAC Renovation

LINCOLN UNIVERSITY - (Jefferson City, MO)

New Outdoor Tennis Faculty – Sports lighting
Aquaculture Research Facility – Pump control panel design
Elliff Hall Renovation – 3800 sq ft TV broadcasting Bldg
Sheep and Beef Handling Facility – New construction
Elliff Hall Gym and Broadcasting room –Renovation 2,850 sq ft
Lincoln University Daycare – Building Renovation 2,200 sq ft

SCHOOLS/CHURCHES

OUR LADY of LOURDES INTERPARISH SCHOOL – 30,000 sq ft Addition (Columbia, MO)

COLUMBIA CATHOLIC HIGH SCHOOL –New School 90,000 sq ft (Columbia, MO)

MISSOURI STATE HIGHWAY PATROL - Academy HVAC Renovation (Jefferson City, MO)

WOODCREST CHAPEL – New 15,400 sq ft Children's Wing Addition (Columbia, MO)

IMMACULATE CONCEPTION SCHOOL - New School 28,800 sq ft (Jackson, MO)

MACON MIDDLE & ELEMENTARY SCHOOL - Electrical Upgrades Evaluation (Macon, MO)

MACON HIGH SCHOOL-HVAC - Renovation (Macon, MO)

SCHOOLS/CHURCHES continued

ELDON SPORTS COMPLEX – Parking lot, track and field (Eldon, MO)
EUGENE SPORTS COMPLEX – Parking lot, track and field (Eugene, MO)
RUSSELLVILLE SPORTS COMPLEX – Parking lot, track and field (Russellville, MO)
JACKSON JUNIOR HIGH SCHOOL - Renovation and Addition 75,000 sq ft (Jackson, MO)
FIRST PRESBYTERIAN CHURCH – New 58,800 sq ft Addition (Fulton, MO)
UNITED METHODIST CHURCH –Building Renovation 4,160 sq ft (Jefferson City, MO)
ST. MICHAELS DELIVERANCE CHURCH – Feasibility and Evaluation Report (Jefferson City, MO)
CHRISTIAN CHAPEL - New Addition (Columbia, MO)
SALVATION ARMY - Chapel Renovation (Jefferson City, MO)
FIRST CHRISTIAN CHURCH HVAC - Renovation (Memphis, Missouri)

BUSINESS / OFFICE BUILDINGS

MISSOURI STATE HIGHWAY PATROL- Headquarters/Dormitory HVAC and Plumbing Renovations (Jefferson City, MO)
MISSOURI STATE CAPITAL – Renovation for House of Representatives 9,000 sq Ft (Jefferson City, Missouri)
MISSOURI RETIRED TEACHERS ASSOCIATION – New Office Building 6,800 sq ft (Jefferson City, MO)
A-1 RENTAL – Retail Building Renovation 8,776 sq ft (Columbia, MO)
BREWER SCIENCE – Conference Room Renovation 4,050 sq ft (Rolla, MO)
MIDWAY ANTIQUE MALL – Retail Building Renovation 42,900 sq ft (Columbia, MO)
MIDWEST BLOCK AND BRICK – New Building 18,000 sq ft (Jefferson City, MO)
SUPREME COURT BUILDING – Updated electrical service to existing 4 story bldg (Jefferson City, MO)
BIO DIESEL NATIONAL HEADQUARTERS – Office Renovation 9600 sq ft (Jefferson City, MO)
JOHNSON’S SHUT-INS – Geothermal Ground Source Design for New Visitor Center (Reynolds County, MO)
MICHAEL BERRY LAW OFFICE – 3 story Office Renovation (Jefferson City, MO)
ATKINS BUILDING – Renovation 50,000 sq ft (Columbia, MO)
JEFFERSON CITY - CITY HALL – 2ND Story addition 5,000 sq ft (Jefferson City, MO)
PUCKETT’S CLOTHING STORE – Renovation 7,600 sq ft (Columbia, MO)
TRUMAN OFFICE BUILDING – Main motor control center replacement (Jefferson City, MO)
LIFE STYLES FURNITURE – Renovation 7,200 sq ft (Columbia, MO)
CORPORATE IDENTI-T’s – New construction 8,300 sq ft (Columbia, MO)
LES BOURGEOIS BISTRO – New septic system control wiring / site lighting design (Rocheport, MO)
9th STREET RENOVATION – Feasibility study for business district historic renovation (Columbia, MO)
TRUMAN STATE PARK VISITOR CENTER – New construction 3,700 sq ft (Warsaw, MO)
HERITAGE MARKET RETAIL CENTER – New construction 10,200 sq ft (Jefferson City, MO)
HARRY S. TRUMAN STATE PARK - New Ground Source Heat Pump System (Warsaw, MO)
FIRST PRESBYTERIAN CHURCH – New Construction 3,000 sq ft (Mount Olivet, MO)
FIRST PRESBYTERIAN CHURCH – New Addition 58,800 sq ft (Fulton, MO)
TRUMAN STATE OFFICE BUILDING – Renovations (Jefferson City, MO)
BALLANTINE HOUSE – Historic Renovation 20,000 sq ft (Boonville, MO)
FULTON CITY HALL - New construction 125,000 sq ft (Fulton, MO)
SHELTER INSURANCE COMPANY - New Addition 45,000 sq ft (Columbia, MO)
SHELTER INSURANCE COMPANY - Computer Room HVAC Renovation (Columbia, Missouri)
DEPT. OF SOCIAL SERVICES – Historic Building Renovation (Boonville, MO)
THE JUNCTION – New Restaurant/night club 11,500 sq ft (Perry, MO)

MEDICAL FACILITIES

CHRISTY COURT MEDICAL BUILDING – New facility 15,280 sq ft (Jefferson City, MO)
ST. MARY’S – PATHWAYS SLEEP CENTER – New facility 6,110 sq ft (Jefferson City, MO)
SURGERY CENTER OF NORTH CENTRAL MISSOURI – HVAC evaluation (Moberly, MO)
DR. PARK BUILDING V – HVAC Renovation 2,700 sq ft (Columbia, MO)
VA HOSPITAL – (Columbia, Missouri)
 -Specialty Care Clinic Renovation – 6,000 sq ft
 -VA/UMC Research Expansion Project – 13,000 sq ft
METHODIST HOSPITAL (Chicago, IL)
 -Pavilion & Kitchen Renovation
 - Boiler Feed Pump System Renovation
 - #2 Fuel Storage System Design (Chicago, Illinois)

MEDICAL FACILITIES continued

CAPITAL REGION MEDICAL CENTER (Jefferson City, MO)

-Obstetrics/Pediatrics Clinic Renovation

ST. JOHN'S HOSPITAL – (Mt. Vernon, Illinois)

-Medium Pressure Steam Boiler Replacement

-Secondary Chilled Water Pump Addition

ST. MARY'S CLINICS

-Eldon Medical Clinic-Renovation (Eldon, MO)

-California Medical Clinic-Renovation (California, MO)

-Belle Medical Clinic-Renovation (Belle, MO)

INDUSTRIAL FACILITIES

WATLOW CLEAN ROOM – Factory Renovation 1,500 sq ft (Columbia, MO)

STATE STORAGE FACILITY – Building Renovation 137,400 sq ft (Jefferson City, MO)

DANUSER MECHANICAL – Building Addition 32,400 sq ft (Fulton, MO)

VOSS DISTRIBUTING – Building Renovation 4,360 sq ft (Columbia, MO)

611 BIG BEAR BOULEVARD – Building Renovation 27,650 sq ft (Columbia, MO)

RSC RENTAL – New Rental Facility 8,500 sq ft (Columbia, MO)

RSC RENTAL – New construction 5,275 sq ft (Rolla, MO)

MEEKS BUILDING MATERIALS – New out building (Columbia, MO)

JEFFERSON CITY STREET MAINTENANCE BUILDING – New construction 28,600 sq ft (Jefferson City, MO)

ALLIANCE MEDICAL SUPPLY – New office/warehouse 29,000 sq ft (Jefferson City, MO)

LES BOURGEOIS WINERY NEW DISTRIBUTION CENTER 13,200 sq ft (Rocheport, MO)

LES BOURGEOIS DISTRIBUTION CENTER – Electric service replacement (Rocheport, MO)

HENDERSON IMPLEMENT – New Dealership 12,000 sq ft (Columbia, MO)

KEMPER INDUSTRIAL BLDG – New building (Columbia, MO)

BUSENBARK CARPET – New Construction 22,600 sq ft (Columbia, MO)

SUMMIT POLIMERS-Plant Expansion (Columbia, MO)

SAFETY KLEEN-Branch Office & Warehouse (Little Rock, AK)

HUBBELL POWER SYSTEMS-Distribution Center HVAC Controls (Centralia, MO)

MISSOURI NATIONAL GUARD-Fuel Station Controls (Jefferson City, MO)

LIBERTY LANDING SEWER LIFT STATION (Ashland, MO)

KINKADE CROSSING SEWAGE TREATMENT PLANT (Columbia MO)

VILLAGE OF WINDSOR WASTE TREATMENT PLANT (Booneville MO)

ARBOR POINTE POOL (Columbia, MO)

STEEPLECHASE (Columbia, MO)

AUTOMOTIVE

MSHP Troop F New Vehicle Maintenance Garage 21,000 sq ft – (Jefferson City, MO)

RILEY AUTOMOTIVE – Building Renovation and Addition 12,530 sq ft (Jefferson City, MO)

RILEY COLLISION CENTER – Building Renovation and Addition 6,800 sq ft (Jefferson City, MO)

JEFFERSON CITY STREET MAINTENANCE BLDG. – New 25,000 sq ft City maintenance building (Jefferson City, MO)

THREE RIVERS ELECTRIC COOP – Maintenance Expansion 5,000 sq ft (Linn, MO)

GASPERS/ARBYS – New 12,300 sq ft Truck Stop (Kingdom City, MO)

REAGAN HYUNDAI – Auto dealership 13,500 sq ft (Jefferson City, MO)

JD BYRIDER – Office/ Work Bay Addition 3,000 sq ft (Columbia, MO)

BENCH MOTORS AUTO BODY SHOP – New construction 7,700 sq ft (Waynesville, MO)

BP GAS STATION – New Construction 3,100 sq ft (Columbia, MO)

CENTERTOWN MISSOURI NATIONAL GUARD – New Maintenance Training Building (Centertown, MO)

B.A.R. INVESTMENTS, LLC – Rollins Tools New Construction 3,800 sq ft (Jefferson City, MO)

MIENIKE MUFFLER SHOP – New construction 6,900 sq ft (Columbia, MO)

CUSTOM MUFFLER – New construction 7,500 sq ft (Columbia, MO)

MONG New Maintenance Training Building 5,000 sq ft (Centertown, MO)

REFERENCES

ARCHITECTS & ENGINEERS

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3401 W Broadway Business Park, Columbia, MO 65203
(573) 817-5750
Contact: Jay Gebhardt

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Contact: Dave Weber

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(573) 635-9127 ex. 259
Contact: Brad Copeland

Bank of Missouri (Columbia, MO)
Contact: John Keller (573) 874-6454

Central MO Pools (Moberly, MO)
Scott Middleton (660) 263-4855

ECO Paving (Columbia, MO)
Contact: Steve Wendling (573) 219-2113

LES BOURGEOIS WINERY (Rocheport, MO)
Contact: Curtis Bourgeois (573) 698-8970

PCE (Columbia, MO)
Contact: Craig Simon (573) 442-1113

Questec Contractors (Columbia, MO)
Contact: Scott Boyd (573) 875-0260

RILEY AUTOMOTIVE (Jefferson City, MO)
Contact: Kevin Riley (573) 634-2324

Government Entities

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