TWM
ENGINEERING & GEOSPATIAL SERVICES

Firm Brochure 2023

Missouri's Local Program

Transportation • Survey/Geospatial • Structural • Land Development • Water Infrastructure

our core competencies: TWM, Inc. is a 100% employee-owned firm that specializes in civil and structural engineering and geospatial services. Over the last 75 years, we have successfully completed projects for over 100 government agencies throughout Missouri, Illinois, the Midwest and beyond, including:

DOTs | Municipalities | Counties | Federal | Military | Transit Districts
St. Louis Metropolitan Sewer District | Parks & Recreation Departments

As a full-service engineering consultant, TWM prides itself on being able to provide a broad range of design projects and related services. TWM has diversified into five primary disciplines:

- Transportation
- Survey/Geospatial
- Structural
- Land Development
- Water Infrastructure

Each of our Missouri Offices have at least one full time staff member who is MoDOT LPA Basic Training Certified and is ready to meet the needs for a variety of LPA project types.

We have a long history of serving both private and public sector clients. Those clients and the communities we have served can attest to our focus on the details, our commitment to project schedules, and our care toward the client as a vested partner in the project.

EXCEPTIONAL SERVICE. NOTHING LESS

TWM-INC.COM

ABOUT TWM | Background & Qualifications

range of capabilities

At TWM, we have the resources of a larger firm and the personalized customer service of a small, family-oriented firm working for local communities. With 9 office locations in 3 states, our firm is an ideal size—large enough to take on major projects but small enough to respond to your needs quickly.

We're capable of providing a **broad range of design projects** and related services for nearly any type of project, including:

- Roadways, highways, and streetscapes
- Multi-modal and pedestrian facilities
- Traffic analysis, traffic studies, and signal design
- Bridges, retaining walls, large structures, and buildings
- GIS, land surveying, mapping, reality capture data collection, and engineered layout
- Recreational, commercial, industrial, institutional, and residential sites
- Municipal engineering/consulting
- Water distribution, water systems, and treatment
- Wastewater collection and treatment systems
- Stormwater management
- Video inspection of pipes and culverts and air testing
- Construction inspection services

how we develop a diverse workforce

TWM is proud to be an equal opportunity employer. We have a voluntary affirmative action plan in place and actively recruit and promote through channels that reach diverse applicants. In addition, we have (in the past or present):

- Contributed to ACEC & Engineers' Club—known for seeking ways to increase interest in engineering among minorities
- Participated in STEM career Q&A sessions at local high schools
- Offered scholarships to high school students who want to study engineering in college
- Incorporated age and experience into mentoring practices

Among our professional engineers, ages range from 27 to 70, females account for 29% (well above the St. Louis MSA census figure of 16%), some have a military background or affiliation, and many practice differing religions. All TWM employees become owners of the company through our Employee Stock Ownership Plan, once they meet eligibility requirements of 1 year of service and 1,000 hours worked. The stock is a gift from the company with no financial participation by the employee. We believe building a diverse team provides the best synergy to accomplish our mission, **Exceptional Service. Nothing Less.**

EXCEPTIONAL SERVICE. NOTHING LESS.

That's our mission statement and our promise to you. Our success is built upon a solid reputation for getting the job done right. We are particularly proud that we retain approximately 95% of our customers' business. Our resolution of challenges is what sets us apart, and based on our level of repeat business, we think our clients agree.

company data

- Self-Certified Small Business
- 100% ESOP-owned
- States in which TWM & TWM engineers hold licenses: IL, MO, TN, AR, IN, GA, FL, KS, KY, MI, MT, TX
- Survey licenses: AR, IL MO, KY KS TN, OR

corporate headquarters

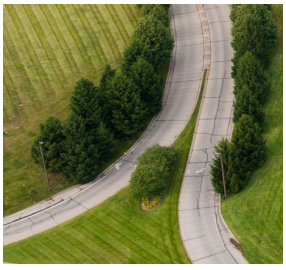
4940 Old Collinsville Road
Swansea, IL 62226
618.624.4488

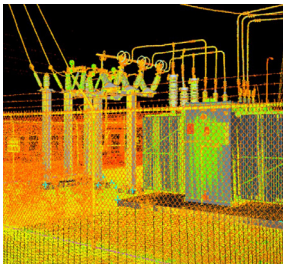
office locations

MO:
St. Louis
St. Charles
Columbia

IL:
Swansea
Peoria
Edwardsville
Columbia

TN:
Franklin
Chattanooga

RELEVANT EXPERIENCE | Example Projects

roadway design

Our designs bring innovative solutions to reduce congestion and minimize future maintenance costs. We have the staff, tools, and resources to solve a myriad of transportation engineering problems you face. Our roadway expertise includes:

- designing new alignments
- reconstruction and widening projects on interstates
- rural and urban highways
- local streets and bridges
- bike trails and sidewalks
- multi-modal enhancements

Cognizant that our clients always have budgets to meet, we strive for solutions that not only work, but also work smart.

McKnight Road Sidewalk & Resurfacing | STP-5609(615) & TAP-5412(605)

Surveying and property research, preliminary plans, ROW plans, and final bid package. Project consisted of milling existing surface, HMA overlay, ADA-compliant 6' wide sidewalk addition on west side, drainage improvements, and signal replacement at Clayton intersection. Assisted with preconstruction conference, daily site inspections, conducting construction material testing and inspections, and performing ADA inspections.

Fernview Drive Resurfacing | STP-5526(645)

Project design included preliminary and final design for mill and fill resurfacing. Pavement design innovations included use of Void Reducing Asphalt Membrane on longitudinal joints and fiber reinforced asphalt. TWM adhered to all applicable requirements to ensure the City received its federal funding reimbursement.

Saline Road Safety Improvements | STP-5469(603)

TWM performed topographic and boundary surveys, produced hydraulic analysis and waterway design, produced ROW acquisition documents, and designed improvements for this 1-mile long roadway safety project in northern Jefferson County. Improvements included adding 4' wide shoulders, sizing and replacing three box culverts, replacing driveway culvert, and installing rumble strips.

trails & sidewalks

From simple sidewalk projects to complex ADA / PROWAG solutions, TWM has also been setting the standard for bike trail / SUP design. Some of our typical projects include:

- Rural/remote bike trails and urban shared-use paths
- Transit oriented pedestrian solutions such as Z-gate crossings
- ADA/PROWAG compatible sidewalk and ramps
- ADA transition plans
- Streetscape projects with decorative railing and lighting
- Feasibility studies for bikeway corridors
- Safety studies for crossing busy urban roadways

Russell Avenue Shared-Use Path | TAP-5577(638)

TWM designed an 8' wide shared-use path connecting two city parks. TWM successfully obtained a $1 million TAP grant to fund the pedestrian-focused improvements on this project as well as the Deer Creek Greenway Connector. As a result, our team was tasked with combining the Russell Ave shared-use path bid package with the Deer Creek Greenway Connector bid package to MoDOT LPA standards to take advantage of the grant and build the improvements in tandem.

Fernview Drive Sidewalk Concept

While completing the Fernview Drive Resurfacing project, TWM was tasked with designing three different concepts for new sidewalk along Fernview Drive in Creve Coeur. Strip maps were produced with the three concepts to collect neighborhood input at a public meeting. After reviewing the comments from the public meeting, one of the concepts was selected and a conceptual plan and estimate generated to assist the City in applying for federal funds to build the improvements.

RELEVANT EXPERIENCE | Example Projects

structures

We focus on delivering structures that are cost-effective, safe, easily constructible, and durable. Some typical projects:

- Bridge replacements
- Box culverts and wingwalls
- Deck and superstructure replacements
- Repair and rehabilitation
- Deck overlays
- Grant applications
- Load ratings and bridge condition reports (BCR)
- "Signature" pedestrian bridges
- Rails-to-trails conversion of old bridges

Sanders Park Pedestrian Bridge Replacement

Design for a new bridge structure that maximizes functionality and accessibility of neighborhood access to Sanders Park. The replacement ties the bridge into the existing sidewalks, increasing connectivity to the park system. A pre-engineered truss superstructure with cast-in-place concrete abutments founded on piles socketed into rock was designed to provide an economical and low maintenance structure.

Berry Road Sidewalk Improvements and Culvert Replacement | (AR-1679)

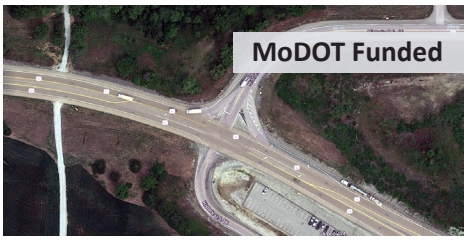
Provided safe pedestrian accommodations by designing a new 6' wide sidewalk on the west side of Berry Road. Safety features include ADA-compliant curb ramps, pedestrian crossings, and vehicular barriers. Scope also included retaining walls, drainage improvements, and replacement of an 8'x9' box culvert under Berry Road.

traffic engineering & TEAP

Traffic engineering is an art as much as a science and requires seasoned engineers to balance residential, commercial, and commuters' interests. We have helped cities plan for upgraded roadway corridors as well as assisted developers by tailoring their projects to suit the existing roadway and traffic conditions.

J6P2350 Safety Improvements Study at U.S. Route 50/Route AT

Traffic study for significant safety concerns at the intersection of U.S. Route 50 & Route AT/North Outer 44. The study included five intersection configurations and review of viability, cost, and methodology of each as a safety improvement strategy. TWM authored a Conceptual Study Report to record the findings and recommend a Preferred Option.



900 Tucker Traffic Redevelopment

Conversion of two-way traffic to one-way movement. Scope included analyzing existing traffic data and trip generations, crash data and safety assessments, preparing a Traffic Impact Study (TIS), performing a capacity analysis, determining traffic distributions and predicting traffic growth for an extended 20 years.

construction inspection

We have the knowledge of federal standards and experience for providing construction observation and inspection services.

Kennedy Street Improvements

This project designed pavement improvements on a segment of Kennedy Street where the existing asphalt has become deteriorated. The project included construction management and inspection services, including assistance with change orders, concrete strength and asphalt density materials testing.

128 total employees, including:

- **5 MoDOT LPA Certified staff**
- 38 licensed PEs
- 7 licensed SEs
- 2 PTOEs
- 11 engineers in training
- 5 construction inspectors
- 13 licensed land surveyors
- 2 surveyors in training
- 28 simultaneous survey crews

Equipment includes:

- 7 terrestrial LiDAR scanners
- 5 UAVs (drones)
- 1 mobile LiDAR unit