



# TRAFFIC PLANNING & ENGINEERING

Part of a diversified family of solutions

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## Services

Travel Demand Forecasting

Traffic Analysis Modeling

Traffic Data Collection

Traffic Studies

Traffic Signal Design & Systems

Signing & Pavement Markings

Maintenance of Traffic

Lighting

Intelligent Transportation Systems

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## About Us

Johnson, Mirmiran & Thompson (JMT) is a multidisciplinary consulting engineering and architectural firm serving clients throughout the United States since 1971. We have successfully completed thousands of projects related to traffic planning and design for a wide variety of clients. Our engineers, modelers, planners, data technicians, and other technical staff provide a broad range of services to meet any project needs.



# Travel Demand Forecasting

JMT has performed travel demand forecasting for more than 25 years, through both regional travel demand models and the manual four-step process. Sample assignments include: transportation plans; individual project forecasts for corridors involving transit, express toll and HOV lanes; and environmental assessments for air and noise analysis.

# Traffic Analysis Modeling

Existing and projected traffic volumes are analyzed to determine the adequacy of existing operations and to evaluate if proposed improvements resolve deficiencies. Various analysis packages, including VISSIM, CORSIM, SIDRA Intersection, SYNCHRO, and Highway Capacity Manual Software, are utilized in the analysis and can range from signal timing to evaluating future improvements. Travel time and speed data are used to validate the models.

# Traffic Data Collection

Traffic data are collected through various methods, including manual, video, and portable counts. Count types include volume, classification, speed, as well as vehicle occupancy data.

Our successful projects are a reflection of the training and experience of our excellent staff.





# Traffic Studies

The traffic studies performed by JMT account for many different elements to ensure that the needs of the client are met. Studies and reviews completed include:

- Traffic Signal Warrant
- Signal Phasing
- Origin-Destination
- Truck
- Pedestrian
- Delay & Queuing
- Big Data Analysis
- Bicycle
- Roundabout
- Corridor
- Transit
- School
- Signal Timing
- Crash Analysis
- Traffic Calming
- Pedestrian/Road Safety Audits
- Parking
- Access Management
- Traffic Impact Study Reviews



# Maintenance of Traffic

Work zone safety for all construction personnel, pedestrians, bicyclists, and motorists is of paramount importance at JMT. We have developed a course in work zone safety procedures and design that has been taught to state and local agencies. Our staff is familiar with utilizing various software packages to analyze traffic during construction in the development of transportation management plans. We also incorporate the latest technologies, such as our work with automated speed enforcement zones in work areas.

# Lighting

JMT designs roadway lighting for major interchanges as well as decorative, low-level lighting for urban streetscapes. We strike a balance between functional and aesthetic lighting based on the context of the lighting needs. Cost effective solutions, such as LED and other low power draw fixtures, are the mainstay of our practice of developing sustainable solutions.

# Traffic Signal Design & Systems

JMT has designed hundreds of traffic signal and beacon installations, including HAWK and RRFB, throughout the United States. Many of these were part of an existing or proposed traffic signal system requiring the addition of system communications. Field reviews in conjunction with our in-house survey and utility designation ensure minimal conflicts during installation.



# Signing & Pavement Markings

Motorists rely on signing and pavement markings to understand how to traverse a roadway and find their destination. JMT accounts for various human factors to develop signing and pavement marking plans. Plans are developed in accordance with the Manual on Uniform Traffic Control Devices, as well as state and local jurisdiction standards and regulations.

# Intelligent Transportation Systems

JMT has the experience necessary to incorporate ITS solutions into transportation projects. These solutions include alerting motorists through dynamic message signs; HAR systems or 511 systems; monitoring traffic conditions through state-of-the-art systems; and controlling traffic flow with innovative advanced traffic management systems plus the design of toll systems. Our staff has been involved with a pilot program for implementing connected and autonomous vehicles.





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