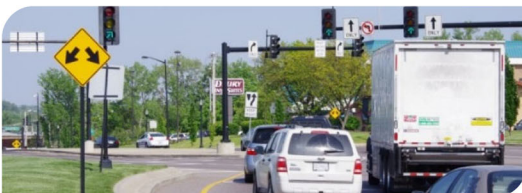
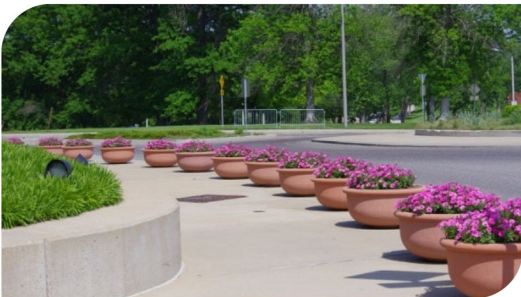


# TRANSPORTATION ENGINEERS+PLANNERS



**TRANSPORTATION  
ENGINEERS+PLANNERS**

**EXPERT   TRUSTED ADVISOR   FRIEND**



## Staff

29 Employees  
13 Licensed Professional Engineers (PE)  
12 Professional Traffic Operations Engineers (PTOE)  
2 Professional Transportation Planners (PTP)  
2 Road Safety Professionals (RSP2I and RSP2B)

## Services

Access Management  
ADA Compliance  
Bicycle/Pedestrian Plans & Facilities  
Community & Stakeholder Engagement  
Complete Streets  
Construction Detour Mitigation  
Construction Review & Inspection  
Data Collection  
Expert Witness Services  
Freeway & Arterial Operations  
Funding & Grant Applications  
Geographic Information Systems (GIS)  
Micro-Simulation Modeling  
Parking Studies  
Roadway & Intersection Design  
Roundabout Studies & Design  
Safety Studies & Analysis  
Signal Optimization & Synchronization  
Smart Cities Planning  
Sustainable Transportation Solutions  
Traffic Calming  
Traffic Impact Studies  
Traffic Management Center Staffing/ Operations  
Traffic Signal Turn-Ons & Programming  
Traffic Signal, Lighting & ITS Design  
Training & Professional Development  
Travel Forecasting & Modeling



## Offices

**Headquarters**  
St. Louis, Missouri  
12400 Olive Boulevard,  
Suite 430  
Saint Louis, MO 63141

**Downtown St. Louis**  
720 Olive Street, Suite 1701  
Saint Louis, MO 63101

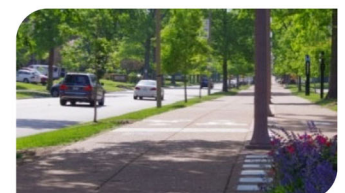
**St. Charles, Missouri**  
119 South Main Street  
Saint Charles, MO 63301

**Kansas City, Missouri**  
4741 Central Street #1354  
Kansas City, MO 64112

**Collinsville, Illinois**  
340 Regency Centre  
Collinsville, IL 62234

## Contact

phone 314. 878.6644  
fax 314.878.5876  
[www.cbbtraffic.com](http://www.cbbtraffic.com)  
[cbb@cbbtraffic.com](mailto:cbb@cbbtraffic.com)



**12400 Olive Boulevard, Suite 430, Saint Louis, Missouri 63141**

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Collinsville, IL 62234

**Mission Statement:** CBB is a Midwest firm where free-thinking, innovation, and collaboration merge with international best practices to provide traffic engineering and transportation planning solutions for safer, more sustainable, and economically vibrant communities

**General Overview:** Established in 1973, CBB is a leader in transportation engineering and planning. Several staff members have advanced professional accomplishments including post-graduate degrees in transportation engineering and planning; licensure as Professional Engineers (PE); and certifications as Professional Traffic Operations Engineers (PTOE), Professional Transportation Planners (PTP), and Level 2 Road Safety Professionals in both Infrastructure and Human Behavior (RSP2I and RSP2B). Our active engagement in technical societies such as the Institute of Transportation Engineers (ITE), American Public Works Association (APWA), International Municipal Signals Association (IMSA), American Planning Association (APA), National Association of City Transportation Officials (NACTO), Transportation Research Board (TRB), and the American Society of Civil Engineers (ASCE) keep us abreast of new advancements and technologies.

**CBB has a Rich History Partnering with MoDOT on Innovative Projects:** CBB has a long history of innovation with MoDOT going back to the New I-64 Design-Build and Rural Expressway Median Cross-Over Task Force projects. CBB was a key part of all three St. Louis Diverging Diamond Interchange (DDI) projects at I-270/Dorsett Road, I-70/Mid Rivers Mall Drive, and I-70/5th Street. Most recently CBB has been an instrumental part of innovative design-build projects such as I-270 North, I-70 Rocheport Missouri River Bridge, and I-70 Truck Climbing Lanes at Mineola Hill. Examples of project innovations include Dynamic Trail-Blazer Signage, Counterflow Bus-Only Lanes, traffic management drones, Advanced Traffic Signal Performance Measures (ATSPM), and Advanced Roadway Condition Warning System.

## **CBB's Service Areas**

### **TRANSPORTATION STUDIES AND PLANNING**

CBB blends transportation engineering and planning to develop visionary, practical solutions that meet the needs of our clients. CBB has participated in every stage of project development such as access management, safety studies, traffic impact studies, comprehensive transportation plans, public engagement, and the writing of grant applications. We are experienced in collaborating with key stakeholders like State DOT's, Metropolitan Planning Organizations, City Planning and Public Works Departments, School District, and Transit Agencies. CBB is proud of the work we do in creating holistic transportation solutions that serve every member of the community. Several tools are employed to solve transportation problems as part of CBB's transportation studies and planning process. Our team members are experts in the use of transportation resources from agencies such as FHWA, AASHTO, ITE as well as MoDOT's Engineering Policy Guide (epg). CBB provides an unparalleled level of expertise and diligence in transportation engineering and planning projects to ensure safe and efficient transportation solutions for all users.

### **TRANSPORTATION MODELING**

We understand that transportation modeling is crucial in developing transportation solutions. CBB's staff are experts in the latest transportation modeling techniques and methodologies for analysis, planning, and communication. We are equipped to perform high level macroscopic analyses for concept level studies to in-depth microsimulation models built with vehicular travel, parking, public transit, and pedestrian behavioral features. We realize that once a transportation solution has been developed, the next vital step is communicating the solution to the community. To that end, we are skilled in utilizing microsimulation models to create visual animations that can depict the benefits a transportation project has to offer. We also have expertise in big data analytics, which has become increasingly important in transportation industries. We can analyze large amounts of data to understand any correlation, hidden patterns, and other underlying insights to improve efficiency and flexibility in traffic operations and safety projects. CBB is well-versed in the following areas such as Data Analytics, Travel Demand Modeling (e.g., Cube, TransCAD, VISUM), Microsimulation (e.g., VISSIM), Macrosimulation (e.g., SYNCHRO, SIDRA, VISTRO, HCS), Pedestrian Modeling (e.g., VisWalk), Transportation Visualization and Animation, and Geographic Information Systems (GIS).

### TRANSPORTATION DESIGN SERVICES

CBB's roadway, traffic signal, ITS, and lighting designers take an innovative and methodical approach to solving design challenges by understanding the fundamental needs of the project. Each project is a unique assignment, and we strive to develop alternatives that minimize impacts and construction costs while maximizing safety and functionality. We are committed to detail and coordination in our design process. We are well versed in completing high-level concept plans to final design plans for construction. We are adaptable to last-minute changes that are inevitable during construction as well as finding ways to cut costs without sacrificing quality. CBB has years of expertise in a wide range of design experience including complex intersections and interchanges, roundabouts, traffic signals, lighting, and Intelligent Transportation Systems (ITS). Our staff is also skilled in the latest versions of powerful software tools such as AutoCAD Civil 3D, MicroStation and Autoturn. We also provide construction review and inspection services, which allows for a seamless transition from the project design phase to final implementation. At CBB, we are passionate about providing accurate and well-designed plans and are committed to accomplishing our client's goals within the required budget.

### TRAFFIC SIGNALS AND TRANSPORTATION SYSTEMS OPERATIONS

At CBB we understand the importance of a smart and efficient transportation network. With years of experience working in Intelligent Transportation Systems (ITS) and traffic signal technologies, CBB is an expert in transportation operations. We are recognized experts in traffic signal and intersection design, ITS network/device design and integration, signal turn-ons and on-call maintenance, traffic management center (TMC) operations, maintenance of traffic (MOT) during construction, signal coordination and timing projects and much more. We have successfully managed traffic for countless large and small projects, municipal bodies, and government organizations. Our knowledge and experience of how drivers react to a closure, crash, or high-volume event allows us to mitigate traffic and reduce travel times. Having a safe, efficient, and intelligent traffic system is necessary in today's landscape. Our staff has the knowledge and experience to select, design, program, troubleshoot, and implement numerous ITS components. This allows our clients to focus on their daily tasks while CBB handles the problems of today and plans for the challenges of tomorrow. We have deep expertise with several types of traffic management software including Tactics, Centrac, TransSuite, and MAXVIEW. We field program and troubleshoot signal detections software such as Iteris and Autoscope cameras in addition to many types of traffic controllers including Siemens, Econolite, McCain, and Intelight. We are experts in several types of traffic operations software including Synchro, Tru-Traffic, and are well-versed in Traffic Signal Optimization and Synchronization, Maintenance of Traffic during Construction, Field Services / Signal Turn-Ons and Programming, and TMC Staffing.

### TRANSPORTATION SAFETY

CBB is committed to a safe transportation network and understands the impact it has on communities and people of all ages and abilities. We put safety at the forefront in every aspect of transportation design. It is the foundation for our work from designing a full highway reconstruction project to determining the location of a new crosswalk. We understand that every detail can make the proposed improvement more intuitive to the user and ultimately safer for everyone. We strive to optimize the design for safety at the core of the design, but also have a toolbox of safety countermeasures that we pull from to help mitigate underlying safety issues. There are countless metrics with which to evaluate a road system, travel time, capacity, reliability, etc. However, the most important goal is for road users to get to their destinations safely. While numbers and monetary values are assigned to crashes to better facilitate crash evaluation, our team understands that every crash represents a real-life impact to one or more people. With this in mind, we strive to provide thorough safety recommendations and evaluations. We are well versed in all levels of safety analysis and design, from a localized crash analysis at an intersection to expansive network screenings of an entire Metropolitan Planning Organization that includes multiple counties. We have experience in safety evaluations and use an innovative, data driven approach to safety analysis. Our staff are experts in the HSM Methodologies. We are regular users of all the safety analysis software including HSM spreadsheets, ISATe, IHSDM and ArcGIS. Finally, we have certified Level 2 Road Safety Professionals in both Infrastructure and Human Behavior, (RSP2I and RSP2IB), giving you confidence that all safety results are reliable and accurate.

## TECHNICAL CAPABILITIES AND AGENCY EXPERIENCE

The following is a listing of CBB's government agency work history within the past two (2) years and the various services we provided.

### STATE AGENCIES

Illinois Department of Transportation  
Missouri Department of Transportation

### COUNTIES

St. Charles County, MO

### CITIES

Brentwood, MO  
Clayton, MO  
Collinsville, IL  
Columbia, MO  
Cottleville, MO  
Creve Coeur, MO  
DeSoto, MO  
Fairview Heights, IL  
Festus, MO  
Kirkwood, MO  
Ladue, MO  
Maplewood, MO  
Maryland Heights, MO  
O'Fallon, IL  
Pacific, MO  
Russellville, AR  
St. Louis, MO  
Sunset Hills, MO  
Washington, MO  
Weldon Springs, MO  
Wentzville, MO

### METROPOLITAN PLANNING ORGANIZATIONS

East West Gateway Council of Governments  
SIMPO

### OTHER GOVERNMENT ENTITIES

Fenton Fire District

Access Justification  
Reports (AJR)

Access  
Management

Bicycle/  
Pedestrian  
Plans & Facilities

Campus Planning

Comprehensive  
Transportation  
Plans

Corridor and  
Alignment Studies

Expert Witness  
Testimony

Freeway Operations  
Studies

Interchange  
Concept  
Development

Intersection Design  
Studies

MoDOT Transportation  
Engineering Assistance  
Program

Parking Studies

Peer Reviews

Planning for  
Connected and  
Autonomous  
Vehicles

Public Engagement

School Circulation  
and Operational  
Studies

Signal Warrants  
Studies

Site Plan Review  
and Refinement

Smart Cities  
Planning

Traffic  
Assessments

Traffic Impacts  
Studies