



Transportation Planning & Design
Traffic Engineering

**MARTIN
ALEXIOU
BRYSON**

Who We Are

Martin/Alexiou/Bryson, P.C. (M/A/B) is a Raleigh-based consulting firm specializing in transportation planning and traffic engineering. Building on its reputation for providing cost-effective, sustainable solutions, the firm has grown to 27 persons in 11 years. The exceptional depth and breadth of staff experience has earned M/A/B the opportunity to participate in a variety of important and innovative projects throughout the state and country. We are particularly proud of the breadth of our experience, gained by developing successful transportation solutions at both local and regional levels for automobiles, transit, pedestrians, bicyclists, and most importantly, PEOPLE. M/A/B is an NCDOT registered Small Professional Services Firm (SPSF), a small business enterprise by Federal business standards, and a SWaM.

Services

Transportation Planning

- Long range transportation plans
- Multimodal plans
- Small area plans
- Corridor studies
- Major Investment Studies (MISs)
- Environmental screening
- Community impact assessments
- Feasibility studies
- Conceptual designs
- NEPA environmental documents (CE, EA/FONSI, EIS, ROD)
- Transportation Systems Management (TSM)
- Transportation master plans
- Trip reduction studies
- Geographic Information System (GIS)
- Bicycle plans
- Public involvement programs/consensus building

Traffic Planning and Engineering

- Traffic impact analysis (TIA)
- Traffic circulation studies
- Traffic analysis for environmental studies
- Traffic forecasting
- Signal warrants analysis
- Traffic signal design
- Traffic calming
- Intersection geometric design
- Pedestrian safety studies
- Traffic safety studies
- Traffic control plans
- Access management
- Rail crossing studies
- Functional design



Travel Modeling

- Travel forecasting
- Travel demand model development
- Toll forecasting
- Travel demand model application
- Travel behavior surveys
- Air quality conformity analysis

Roadway Design

- Conceptual and preliminary designs
- Final designs and construction plans
- Intersection improvements
- Roundabout designs
- Urban and rural roadways

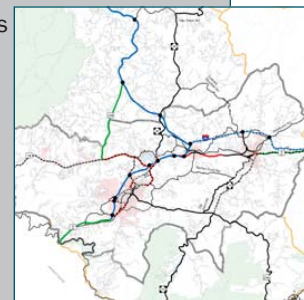
Campus Planning

- Parking analysis, forecasts, and plans
- Parking management strategies
- Parking reduction strategies
- Travel demand management
- Traffic calming
- Pedestrian safety
- Streetscape enhancements
- Bicycle planning
- Transit planning
- Traffic analysis and studies
- Traffic signal and control plans
- Special event management
- Address geocoding
- Travel behavior and attitudinal surveys
- Monitoring and peer review
- Carbon reduction plans



Transit and Rail Planning

- Regional and local transit plans
- Transit feasibility studies
- Multimodal transportation center studies
- Air quality analysis
- Corridor studies
- Service planning
- Ridership modeling
- On-board surveys
- Transit Oriented Development (TOD)
- FTA New and Small Starts Applications



Parking

- Parking plans
- Demand and pricing studies
- Facility feasibility studies
- Impact studies
- Layout and design

Select Projects

Downtown Development

Raleigh Livable Streets / Raleigh, NC
M/A/B was selected by the City of Raleigh to develop a transportation plan for the core area of downtown Raleigh. Recommended transportation actions included parking management strategies, modifications to the signage of downtown streets (wayfinding), and modifications to the transit routes in the area. The analyses performed for this study led to subsequent studies to begin the conversion of the one-way streets in the downtown area to two-way operation.



Traffic Planning and Engineering

Cary Parkway and High House Road Intersection Improvements Study / Town of Cary, NC
M/A/B completed the second and final phase of the Cary Parkway and High House Road intersection improvements study. The Town of Cary was seeking innovative improvement options for this centerpiece intersection that improved operations while

minimizing widening that could negatively affect landscaping and its aesthetic qualities. The initial phase identified seven unique intersection alternatives, such as traditional widening, quadrant roadways, bowtie, and roundabouts. The second phase of project included a detailed study of the three options preferred by Town Council. Conceptual design drawings, construction costs estimates, and detailed operational analyses including VISSIM animations were developed for these three options.



Traffic Impact Analyses

Town of Cary On-Call TIA Services / Cary, NC

For the past four years, M/A/B has performed more than 65 TIAs under an on-call agreement with the Town of Cary to conduct studies on an as-needed basis. The studies include an assessment of existing and future conditions utilizing Synchro/SimTraffic, a review of site layout and access, and recommendations for turn-lane and signalization improvements. The types of TIAs completed include studies for residential, office, retail, and mixed-use developments.



Campus Planning

On-Call Services for Development Plan
University of North Carolina at Chapel Hill / Chapel Hill, NC

M/A/B has worked on more than 40 campuses across the country, including the University of North Carolina at Chapel Hill. M/A/B has been providing on-call services under an a contract to assist the University implement its Development Plan which will add approximately 6.0 million SF to the Main Campus over a period of 8 years. Services have included traffic impact studies, parking analyses, and traffic control plans and signal design. Members of M/A/B staff have been assisting the campus for over 15 years, including the preparation of the 2001 Master Plan.



Transit Corridor Planning

NC 54 Transit Corridor Study
Triangle Transit / Research Triangle Park (RTP), NC
M/A/B was retained by Triangle Transit to determine the feasibility of implementing high capacity transit

improvements in a 13-mile corridor, which stretches between the University of North Carolina at Chapel Hill main campus and the planned Triangle Metro Center development in RTP. The corridor is one of several that ultimately may comprise the regional transit system for the Triangle area. Technologies assessed included Bus Rapid Transit (BRT), Diesel Multiple Units, and light-rail transit. Use of a planned HOV lane for BRT was also evaluated.

Transit Design

Multimodal Study
City of Greenville, NC

M/A/B studied the feasibility of a Transportation Center for the City of Greenville, NC. The city is growing strongly, driven by its role as eastern North Carolina's medical and academic hub, and is facing future congestion and mobility issues. M/A/B's study examined whether and how a transportation center would help to improve citizens' and visitors' mobility, both for people without cars and for those seeking an alternative to congested streets – and in turn help to maintain and improve the city's vitality and quality of life. As well as the potential transportation benefits, downtown revitalization efforts could also be given a boost. M/A/B worked closely with a wide range of stakeholders, including transportation operators, city and county organizations, and the public.



Transportation Planning

Franklin Boulevard Corridor Study
Gaston MPO / Gastonia, NC

M/A/B assisted the Gaston MPO conduct a comprehensive study of a nine-mile segment of US 29/74 through Gastonia. The study addressed economic redevelopment; adaptive re-use; urban design; traffic and transit operations; pedestrian and bicycle routes; safety; access management; and implementation. The study emphasized mixed-use redevelopment that reduced auto dependency, and identified extensive improvements to pedestrian, bicycle, and transit safety and mobility. Work included close coordination with the steering committee, numerous presentations, and a series of public workshops.



Travel Modeling

Monroe Connector/Bypass
Mecklenburg and Union County / NC

M/A/B has provided traffic forecast and modeling services as part of the EIS for a proposed 21-mile freeway bypass from the intersection of US 74 at I-485 in eastern Mecklenburg County to US 74 near the Town of Marshville in Union County. As part of this work, M/A/B undertook

several enhancements to the existing model including adding the toll functionality to the model. The work included daily design volumes for two different alignments for non-toll and toll scenarios, using the recently completed Metrolina Regional Travel Demand Model. The resulting traffic volumes will be used to estimate 2030 traffic volumes for preliminary design and impact assessment.

Parking

Downtown Parking Impact Study
City of Charlottesville, VA

Downtown Charlottesville is an attractive destination, with a successful pedestrian mall and close proximity to the University of Virginia grounds. M/A/B led a study with the goal of effectively managing the parking supply and thus supporting the downtown's continued success. M/A/B's detailed occupancy and turnover analysis has confirmed that although commuters represent only a minority of on-street parking users, they have a disproportionate effect and are a major factor in the stress level. M/A/B also identified future demand growth, deficiencies in the parking supply, and additional structured parking required.

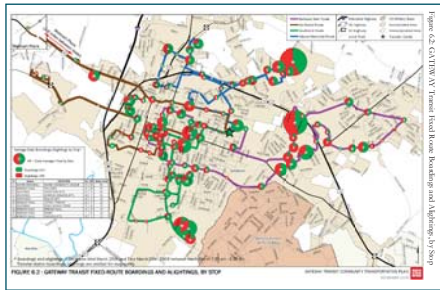


Community Transportation Service Plans

Goldsboro Community Transportation Plan
Gateway Transit Authority (GWTA) and NCDOT Public Transportation / Goldsboro, NC

M/A/B prepared a Community Transportation Plan for GWTA which operates a public transit network offering both urban fixed-route service, within Goldsboro City limits, and rural demand-responsive service, within Wayne County limits. The transit study, the first to be undertaken based on NCDOT Public Transportation Division's (PTD) new template included short- (5-years), mid- (10-years), and long-range (20-years) components.

This study reviewed the current performance and organizational direction of GWTA and recommended alternative strategies for all aspects of GWTA service, including operations, capital programming, marketing strategies, planning, facility relocation, and staffing that will increase mobility options for passengers and improve the efficiency and effectiveness of the organization and transportation services.



Our Philosophy

The firm's philosophy and commitment to clients is captured in the goals that guide all planning and design projects at M/A/B:

- Improve the safety and efficiency of transportation systems
- Broaden transportation choices, improving mobility for all
- Provide balanced, sustainable transportation systems
- Approach transportation challenges as an opportunity to enhance quality of life
- Balance transportation objectives with man-made and natural environments, and with economic goals and realities
- Solicit input from all who will be affected by the outcome
- Embrace each project as a unique learning opportunity for all involved
- Provide enthusiasm and energy on all projects

Our Clients

M/A/B works with public and private clients across North Carolina and the U.S., including:

Departments of Transportation/ Metropolitan Planning Organizations/Authorities

- North Carolina DOT
- Greensboro DOT (NC)
- Durham-Chapel Hill-Carrboro MPO
- Regional Intergovernmental Council, Charleston, WV
- Virginia DOT
- Capital Area MPO (NC)
- Greensboro Urban Area MPO (NC)
- Triangle Transit (NC)
- Wilmington Urban Area MPO (NC)
- Regional Transportation Alliance (NC)

Universities/Colleges

- University of North Carolina at Chapel Hill
- Duke University
- University of Kentucky
- University of North Carolina at Greensboro
- University of Alabama
- University of Arkansas
- University of Chicago
- North Carolina State University
- Cornell University
- Rutgers University
- Carnegie Mellon University
- University of Maryland
- Northern Arizona University
- Arizona State University
- Johns Hopkins University
- Campbell University
- University of Wisconsin
- North Carolina Central University
- Loyola College
- Wake Community College
- Moravian College
- Longwood University
- University of Illinois at Urbana-Champaign
- University of Texas at San Antonio
- James Madison University
- Radford University

Cities/Towns/County

- City of Durham, NC
- Town of Cary, NC
- City of Raleigh, NC
- Town of Chapel Hill, NC
- Town of Hillsborough, NC
- City of Greenville, NC
- City of Jacksonville, NC
- Town of Bethania, NC
- City of Rocky Mount, NC
- Town of Navassa, NC
- Wake County
- City of Manassas, VA
- City of Fredericksburg, VA
- City of Charlottesville, VA
- City of Goldsboro, NC

Other

- School districts
- Mixed use developments
- Real estate developers



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