Brian T. Ketcham, P.E.
President, Brian Ketcham Engineering, PC
Executive Vice President and Technical Director, Konheim & Ketcham, Inc.
Executive Director, Community Consulting Services (501C3)

Professional Background
Brian Ketcham is an innovative transportation engineer with recognized expertise in most transportation related fields: traffic, transit, air quality and noise impact analyses, truck routing, parking plans, pedestrian flow, and associated socio-economic analyses. With more than 30 years of hands-on transportation experience, he has performed dozens of complex traffic and air quality studies, managed transportation and air quality and noise impact assessments of large-scale projects (highways, shopping centers, residential developments, hospitals) and prepared extensive maintenance and protection of traffic and truck route plans, primarily for New York City and State agencies. He produces practical improvements by developing an intimate knowledge of travel patterns and user needs through repeated observation, targeted data collection and optimizing traffic flow with modeling that tests real world effects and builds consensus on solutions. He co-authored a landmark study comparing transport in New York, Paris, London and Tokyo. These forward looking approaches have marked his career since he authored the nation's first comprehensive plan to control mobile source emissions, which pioneered strategies now known as transportation systems management. He is knowledgeable about the best use of advanced transport and air and noise models.

Area-wide maintenance and protection of traffic (M&PT) plans for major construction projects:

- Worked with NYC Department of Transportation over many years to evaluate alternative closure plans for reconstruction of the Queens Boulevard Bridge using TRANPLAN models of a 2 sq/mi area Long Island City road network and all East River crossings. For the selected option, optimized traffic patterns and signal controls with Synchro/SimTraffic modeling of more than 100 intersections, which produced unexpected bonus of better than ever traffic flow throughout the area. (2001)
- Built TransCAD model of the arterial network within a six mile radius of the Triborough Bridge to assist MTA Bridges & Tunnels choose among 13 alternative strategies for redecking all spans. (1995)
- Used TRANPLAN model of 3-sq\m area around the Kosciuszko Bridge to test alternative concepts for NYS Department of Transportation of reconstructing the bridge, including a replacement bridge (1994).
- Analyzed pedestrian-vehicle conflicts on the service roads of the Clearview Expressway to help NYSDOT and community and school officials assess need for changing local street patterns as part of plan for diversion routes during reconstruction of the interchange of the Clearview-Long Island Expressway. (2001)
- Developed diversion routes for NYSDOT during repaving the Staten Island Expressway based on assessing the hour-by-hour capacities of roads adjacent each segment of the six mile highway. (1998)
- Developed for NYCDOT detailed work zone M&PT plans for rehabilitating the Mill Basin and Gerritsen Bridges on the Belt Parkway; assessed mainline impacts of proposed lane reductions. (1995)
- M&PT plan for reconstruction of 12 bridges in Catskill Watershed by the NYCDEP. (1998)

Analysis of design alternatives of highways and other major projects

- Analyzed alternative configurations of new toll barriers on the Bronx-Queens and Manhattan toll plazas of the Triborough Bridge in terms of safety and access to/from Randall's Island,

expressed as externality costs for users and toll revenues for MTA B&T. (2002)

- Developed internal roadway plan of new East End Terminal at LaGuardia Airport for the Port Authority of New York & New Jersey, and for NEPA EIS assessed traffic, air and noise impacts on surrounding roads and community. (1989)
- Evaluated travel and air quality costs and benefits of roadway transport vs. cross harbor barging of goods delivered to the Port of Brooklyn. The study for the PANY&NJ was selected by USDOT as one of the "10 Best Congestion Management and Air Quality projects" to promote TEA-21. (1996)
- Assessed traffic flow conditions using CORSIM model of six alternative merge configurations of FDR Drive from Triborough Bridge off ramp and exit to large retail complex under construction at 116th Street in Manhattan.(2005)
- Determined best configuration for deceleration ramps, using Synchro/SimTraffic, on Bronx River Parkway at Gun Hill Road and at Mosholu Parkway, will use CORSIM to refine designs for NYSDOT. (2005)
- Examined impact of closing northbound exit on Major Deegan Expressway at 230th Street with Synchro/SimTraffic, will use CORSIM for additional study for NYSDOT of feasibility of building new exit and entry ramps to accommodate traffic anticipated from new Target store at 225th Street. (2005)
- Used Synchro/SimTraffic model to augment City Environmental Quality Review of traffic, parking and pedestrian analysis and mitigation of major expansion of New York-Presbyterian Hospital, in particular, to test entry and exit patterns at hospital entrance and recommend comprehensive improvements to circulation patterns around Columbia Presbyterian Medical Center campus. (2000)
- Prepared detailed forecast of traffic and pedestrian demand for LIRR Sunnyside Station Pedestrian Connector planned to be built by the MTA in Long Island City as part of East Side Access project (2003).
- Developed pedestrian and cyclist safety improvements at both ends of the Brooklyn Bridge, the Manhattan end for NYCDOT, the Brooklyn end for Community Board No. 2 as participants in NYCDOT Downtown Brooklyn Traffic Calming Study, by proposing to replace highway-type ramps with signalized crosswalks and reconfigured intersections. Synchro/SimTraffic modeling of the complex Brooklyn approach showed enormous traffic flow benefits of new left-turn lane for southbound vehicles. Concepts selected by the Municipal Art Society as two of the "100 Best Ideas for NYC in the 21st Century." (1997, 2001)
- Directed High Accident Location studies of numerous locations for NYSDOT in which causal factors and recommendations are so well documented that the Regional Office uses the reports as models for other consultants. (2005)
- Analysis of traffic and air quality impacts for CEQR review of a proposal to add 30 industrial and commercial trip generators in College Point Corporate Park, Queens, NY. (1995)
- Performed for the Brodsky Organization, traffic, parking, transit and pedestrian analyses and mitigation of impacts for CEQR review of 1,000 unit residential complex and adjacent 10 million square foot development on 140 block traffic network of upper West Side of Manhattan (1989)
- Multiple studies related to resource recovery facility proposed by Middlesex County (NJ) Utilities Authority: county-wide analysis of 16 potential sites; transfer station analysis; county-wide truck route study; traffic analysis of selected site; redesign of complex traffic circle. Similar studies for facilities in Passaic and Camden, NJ and Conshohocken, PA. Brian also developed enforceable refuse truck routes through close consultation with haulers in Passaic, Middlesex, Somerset and Essex Counties. Landmark waste export study for NYC Department of Sanitation (1990).

Performed air quality, noise impact analyses of traffic generated by large-scale developments:

- La Guardia Airport expansion, Queens, NY. 91989)
- Expansion of Long Island Expressway at the Sagtikos Parkway, Suffolk County, NY. (1985)
- Route 25 widening, CR 83-CR 21, Suffolk County, NY. (2005)
- I-495, Exits 63-67, service road improvements, Suffolk County, NY. (2001)
- Route 112 widening, Route 25-I-495, Suffolk County, NY. (2005)
- Route 25A widening, Suffolk County, NY. (1993)
- Route 211 widening, Orange County, NY. (1985)
- Route 9/I-84 reconstruction, Dutchess County, NY. (1986)

Designed and directed numerous area-wide traffic data collection programs:

- Hutchinson River Parkway and I-95, Bronx, NY for corridor safety study for NYSDOT. (2001)
- Brooklyn-Queens Expressway Corridor for M&PT plan for reconstruction of BQE, north of Queens Blvd. by NYSDOT. Traffic data collection and pedestrian/vehicle conflict analyses. (1998)
- All above traffic analyses.

Education

Case Institute of Technology, B.S.M.E., 1962
Massachusetts Institute of Technology, all course work for M.S. in mechanical engineering, 1966

Professional Registration

Licensed Professional Engineer, 1969, New York State #045144

Societies

Institute of Transportation Engineers
Transportation Research Board, Committee on Socio-Economic Factors in Transportation Planning
Air & Waste Management Association
Society of Automotive Engineers