

**PAI**303 Bagot Street, Suite 501 Tel: (613) 545-3303 jhparker@parker-inc.com
Kingston, ON, K7K 5W7 Fax: (613) 545-1154 www.parker-inc.com**Parker & Associates, Inc.**

JAMES H. PARKER

EDUCATION

1967 B.Sc. Electrical Engineering, Queen's University of Belfast

1970 Ph.D. Electrical Engineering, Queen's University of Belfast

1981 American Management Association, Management Certificate

1995 B.A. Italian and Spanish, Queen's University, Kingston

EXPERIENCE

1986 - Present **President**

Parker & Associates Inc., Kingston, Ontario

- Principal of engineering consulting company with 20 Associates
- PAI Project summary is attached

1986 -1995 **Adjunct Professor Electrical Engineering**

Queen's University, Kingston, Ontario

1984 - 1986 **Special Assistant to the President**

Responsible for Skytrain (automated LRT) product

Urban Transportation Development Corporation (UTDC)

1981 - 1984 **Vice-President, Engineering and Projects (UTDC)**

1974 - 1981 **Director, Engineering (UTDC)**

1972 - 1974 **Electrical Engineering**

Ministry of Transportation, Toronto, Ontario

1970 - 1972 **Assistant Technical Engineer**

Central Nuclear Services, Ontario Hydro, Toronto, Ontario

ENGINEERING AND MANAGEMENT EXPERIENCE

- Led the successful trials for US Federal Transit Administration for safety and reliability qualification of a new transit system
- Troubleshooting, Specification and Contract interpretation support for Kawasaki Rail Car, Inc. (MARC III)
- Acted as expert witness on Toronto Scarborough LRT
- Conducted detailed review of scope and costing of Jacksonville MATRA System for FTA
- Troubleshooting of ATC system for Hong Kong Airport People Mover
- Project review and audit of fully automated PRT 2000 ATC for RTA, Chicago
- Directed system designs of and led international Bids for automated transit systems for Light Rail systems for Ankara, Bangkok, Barcelona and Chicago
- Preliminary design, preparation and management of technical Bid for rolling stock for Washington Metropolitan Transit Authority and New Jersey Transit Authority, Massachusetts Bay Area Transit Authority and New York City Transit Authority
- Prepared preliminary designs, including life cycle costing for Bids for Singapore Sengang Punggol system, Singapore Marina Line, Manila LRT Line 3, Kuala Lumpur AGT and Kuala Lumpur LRT
- Led team of UK/Canadian manufacturing consortium in systems engineering and preliminary design of Docklands Light Railway in London, England,
- Design review and supervision of ac propulsion for Boston Transit Authority (MBTA)
- Development projects for: ac propulsion, steerable trucks, LRT signaling systems, linear motors and flywheel energy storage
- Directed design, development and test of an Articulated Light Rail Vehicle for Toronto
- Project Manager for design, manufacture and delivery of 200 Light Rail Vehicles for Toronto Transit Commission
- Led study team for new design of bogies for London Transport Tube stock
- Product manager for Vancouver SkyTrain (first automatic transit system in North America in full revenue service)
- Review of Edmonton LRT for cab signaling
- Audit of software for Vancouver ALRT train control (driverless system)

SEMINARS, CONFERENCES AND PUBLICATIONS

- Delivered a presentation entitled "Transportation Technology Trends" to IEEE members, Hyderabad, India (2003)
- Delivered a ten-day lecture series to BHEL engineers on propulsion and traction inverter control, Hyderabad, India (2003)
- Paper for Indian Stainless Steel Development Association, Stainless Steel Railcars for Metro and EMU Railways – North American Experience (2002)
- Invited by Leningrad Institute of Railways to give seminars on evaluation techniques for rail systems and vehicles (1992-1993)
- Delivered United Nations expert lecture series on Light Rail Transit in New Delhi, Hyderabad and Bhopal of India (1990)
- Invited speaker to Rail and Transit Technology Conference, Seoul, 1991. "Some experience in evaluating rail systems"
- Innovative Urban Transport Systems: The North American and Japanese Experiences (October 1988)
- Invited to give keynote address on the Safety of software for Train Control at Bicentennial of Politecnico di Milano, Italy 1988 (in Italian)
- Gave lecture tour on new developments in transportation technology to Japanese Manufacturers and Railway Associations (April 1987 & 1988)
- Discussion Paper: Forecasting World Urban Transit Markets (February 1986)

PROFESSIONAL AFFILIATIONS

- Member of Association of Professional Engineers of Ontario
- Member of Institute of Electrical and Electronic Engineers (IEEE)
- Past Chairman of the Land Transportation Committee of the IEEE
- Member of High Speed Rail/Maglev Association
- Past Member of Railway Advisory Committee of Canada
- Past Member - Sub-committee, American Public Transit Association

PAI Project Summary

CLIENT	PROJECT & TYPE	START	END
Kawasaki Rail Car Inc.	Support with PATH Master Program Schedule.	8/05	ongoing
Kawasaki Heavy Industries Ltd.	Marketing Support for projects In Europe.	6/05	ongoing
Sumitomo Corporation	Technical and Marketing Support for projects In Europe.	5/03	ongoing
Kawasaki Heavy Industries Ltd. , Nippon Sharyo Ltd., Toshiba Corporation	Preparation and review of design documents and test procedures and Manuals and Training for Taiwan High Speed Rail project. Participation in V&V process.	12/03	ongoing
Kawasaki Rail Car, Inc.	Preliminary design, preparation (including procurement support) and management of technical Bid for rolling stock for projects including MBTA, WMATA, NJT, SEPTA, SCRRRA Metrolink, PATH, MRCOG, CTA, RAV, MNR M8.	1/01	ongoing
Mitsubishi Heavy Industries	Prepared Commercial documentation.	3/06	4/06
Mitsubishi Electric Corporation	Prepared report on Train Information Management Systems in North America	9/05	3/06
Raul V. Bravo & Associates	Prepared RAMS documentation.	8/05	10/05
Japan Subway Association	Responded to detailed Questionnaire regarding Advanced Rapid Transit Systems.	7/05	7/05
Toshiba Corporation	Support with Spoornet bid for Coallink and OREX lines, including LCC and tender preparation.	2/05	7/05
Kawasaki Rail Car Inc.	Participated in the preparation of Technical Specification Requirements Traceability Matrix for PATH bid.	5/05	6/05
Kawasaki Heavy Industries Ltd.	Supported bid preparation for Stagecoach UK pre-qualification.	3/05	4/05
Toshiba Corporation	Software Documentation preparation and review for R160 Project.	11/03	4/05
Mitsubishi Heavy Industries	Supported with cost estimating for Dubai project.	1/05	1/05
Mitsubishi Heavy Industries of America	Supported with cost estimating for North American civil projects.	12/04	1/05
Gibbons, Del Deo, Dolan, Griffinger & Becchione	Expert Witness in legal case.	6/03	1/05
Kawasaki Rail Car. Inc.	Supported with train EMI emission simulations.	9/04	12/04

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Mitsubishi Heavy Industries	Technical (ATC and Software) and contractual support for Dulles APM.	3/04	12/04
Faiveley - Transtechnik	Preparation of Technical Assessment of Faiveley and Transtechnik Misappropriation of Confidential and Proprietary Information.	3/04	6/04
Nippon Sharyo Ltd. and Sumitomo Corporation of America	Participation in preparation of Chicago METRA bid.	4/04	5/04
Toshiba Corporation	Prepared the Training Manuals and Course Material for submission to car builder for JFK Airport project. Also, scheduled to deliver Course to JFK maintenance personnel.	4/00	4/04
Panasonic	Software Documentation preparation and review for R160 Project.	11/03	3/04
Sidetrack	Preparation of Safety documentation for wall mounted advertising system being promoted to Transit Authorities.	11/03	3/04
Mitsui & Co.	Prepared Market Research Report.	1/04	2/04
University of Wisconsin	Presentation of Engineering Fundamentals of Rail Transit Passenger Systems	1/04	1/04
Fuji Electric Corporation	Software Documentation preparation and review for R160 Project.	11/03	12/03
Korea Railroad Research Institute	Preparation and presentation of safety and reliability seminar course.	8/03	8/03
Toshiba Corporation	Prepared the Training Course Material for submission to car builder for Manila MRT 2 project. Delivered course to Manila maintenance personnel.	3/03	4/03
Toshiba Corporation	Proposal preparation and preparation of Life Cycle Cost mode for the Spoornet SMLLIP.	6/02	10/02
Toshiba Corporation	Prepared the Training Course Material for submission to Car builder for Vancouver SkyTrain extension project. Delivered Course to Vancouver maintenance personnel.	10/00	11/01
Toshiba Corporation	Preparation of RAMS Plan and Quality Assurance Plan for Manila Line 3 project.	4/01	6/01
Toshiba Corporation	Finalization of an ISQAP (for PCU and APU) for the PDR for Minneapolis LRT project.	4/01	5/01
Toshiba Corporation	Prepared the Project Management Plan and Presentation for submission to the car builder for Minneapolis LRT project.	1/01	2/01

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Toshiba Corporation	Prepared Preliminary and Final EMC Safety Report, Test Procedures and Test Report using the RM&S Analyses and Testing results for IE (Irish Rail).	4/00	1/01
Raul Bravo & Associates	Research Report on Japanese bi-level and gallery style, Electromagnetic Multiple Units for the Peninsula Corridor Joint Powers Board Commuter Rail between San Francisco and Gil Roy.	10/00	12/00
Nippon Sharyo Ltd. and Sumitomo Corporation of America	Preparation of Technical Description for Gallery Car Bid (Chicago Metra).	5/00	9/00
Kawasaki Heavy Industries, Ltd.	Prepared Draft Master Plan and Business Plan document, including Executive Summaries for restructuring of the Philippines National Railway. Prepared Executive Summary Presentations.	4/00	7/00
Kawasaki Rail Car, Inc.	Prepared Amtrak Pre-qualification submission.	5/00	6/00
Kawasaki Rail Car, Inc.	Preparation of Conductive Current Limit Calculations for NYCT R143 Contract.	6/99	1/00
Kawasaki Heavy Industries, Ltd. Kawasaki Rail Car, Inc.	Preliminary design of and preparation of proposals for rolling stock division including, New York City subway cars and Light Rail Transit systems in Singapore.	2/96	2000
Kawasaki Rail Car, Inc.	Preliminary design, preparation and management of technical Bid for rolling stock, including New York City Transit R142, R143, R160, Long Island Railroad.	1/96	2000
Mitsubishi Electric Corporation	Preparation of Test Procedures, Test Plan and Lab Procedures for Propulsion system for LIRR project.	4/99	11/99
Kawasaki Heavy Industries, Ltd. (Plant Division)	Preparation of System Bid for Singapore C830 Line.	5/98	11/99
Koito	Preparation of Software deliverable documentation for submission to NYCT (R142A).	1/98	1999
Kawasaki Heavy Industries, Ltd.	Reliability, Maintainability and Safety engineering support services provided for Singapore, C751B line. Prepared RAMS project deliverable documentation.	2/98	12/98
Kawasaki Heavy Industries, Ltd.	Advisor for Bi-Level Commuter Coach projects for Maryland Transit Authority & Long Island Railroad.	2/95	11/98

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Kawasaki Rail Car, Inc.	Supervised analysis, design, development and testing of MARC III rail vehicles. Specification and contract interpretation.	1996	10/98
International Drive Master Transit & Improvement District	Invited speaker to participate in a transit expert forum discussing a proposed LRT system in Orlando.	7/98	9/98
Korea Electrotechnology Research Institute (KERI)	Prepared the short form specification of the significant electrical equipment for the VHSR test train. Prepared the Preliminary Operational Requirements for the on-board computer system for the VHSR train.	3/97	9/98
Mitsubishi Heavy Industries of America	Preparation and management of technical Bid for APM technology (San Francisco Airport, Miami Airport, Dallas Fort Worth Airport, Dulles Airport, Madrid International Airport – prepared in Spanish and English).	4/96	1998
Mitsubishi Heavy Industries, Ltd. (Japan)	Prepared proposal and supported engineering for Bangkok MRT.	6/97	10/97
Mitsubishi Heavy Industries, Ltd. (Japan)	Project engineering support for New Hong Kong Airport People Mover and Manila LRT.	7/94	6/97
Korea Institute of Industrial Technology (KITECH)	Prepared a review and analysis of the current development status and key trends in the design of high-speed rolling stock.	4/97	6/97
Korea Institute Machinery & Metals (KIMM)	Participated in the evaluation of test results for linear induction motor. Prepared workshops for design staff on the design, analysis, control and testing of LIMS.	1994	1997
Transport Canada	Monitored worldwide developments in High Speed Rail/Maglev.	11/93	11/96
Regional Transit Authority, Chicago	Design oversight of Personal Rapid Transit System.	10/93	10/96
Kawasaki Rail Car, Inc.	Advised on Bi-Level Commuter Coach project for Massachusetts Bay Transportation Authority.	1/93	11/94
Nippon Signal (Japan)	State-of-the-Art review of signaling technology.	9/89	9/94
Magnetic Transit Inc. (Japan)	Specification preparation and design review of Maglev system for Orlando project.	10/93	6/94
CIGGT (Canada)	Maglev Vehicle Cost Assessment.	2/94	5/94
Weir & Foulds (Canada)	Expert witness on ALRT system.	1/93	12/93
Boston Transit Authority (USA)	Reviewed and supervised design of ac propulsion system for subway cars.	10/90	11/93

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Que-Ont HSR Task Force	Technology assessment, planning, operations and cost study of High Speed Rail for Canada.	6/92	9/93
Atomic Energy Control Board (Canada)	Prepared statistical analysis of metallurgical data for nuclear reactors.	11/90	7/93
UNDP (India)	Reviewed need for LRT in India and for Hyderabad in particular and present status of Maglev technology.	12/92	1/93
Federal Transit System (USA)	Prepared oversight audit of system design and costs for Jacksonville AGT.	2/92	12/92
Marelli (Italy)	Technical and marketing advisor on urban transit.	11/87	12/92
LS Transit Systems (USA)	Appraised state-of-the-art High-Speed Magnetic Levitation technology in North America.	1/92	6/92
GE USA	Statistical analysis of manufacturing defects.	2/90	6/92
UNDP (India)	Evaluation and design of Locomotive Performance Simulator.	3/92	4/92
Transport Canada	Project Manager of Co-operative International Program with Japan and Germany on Linear Motor Drives.	4/89	4/92
Firema System (Italy)	Technical and marketing advisor on Automated Guideway Systems.	11/90	11/91
Korea Institute Machinery & Metals (KIMM)	Conducted a comparative study of transport modes for high-speed access to Yong Jong Island airport.	8/90	4/91
Korean National Railways	Member of task force on the evaluation and selection process of supplier for HSR technology.	1/90	12/90
Korea Transport Institute	Prepared specification for High Speed Rail for Seoul Pusan Line.	4/90	11/90
Firema Consortium (Italy)	Technical and marketing advisor on Automated Guideway Systems.	2/88	11/90
Inverpower Canada	Reviewed static auxiliary power designs for subway/LRT cars.	6/90	9/90
ACEC (Belgium)	Technical and marketing advisor in N. America for ATC and inverters for transportation.	1/88	7/90
CIGGT (Canada)	Transit Alternatives to Road Access to Big Bear Lake, San Bernardino.	10/88	12/89
Kitakyushu Monorail (Japan)	Analysis of Operations and Maintenance Costs.	1/89	7/89

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Regional Government of Lombardy (Italy)	Advised on new propulsion technology for locomotives.	9/86	9/89
Alcan W&C (Canada)	Technical and marketing advisor for new overhead catenary systems.	2/88	4/89
Mitsubishi Electric (Japan)	Prepared feasibility study of electric automobiles.	11/87	6/88
UTDC (Canada)	Advised on project management for Military Vehicle Program.	8/87	6/88
Olympia & York UK	Reviewed specification for extension for Docklands Light Railway, UK.	2/87	6/88
GEC Canada	Preliminary design of propulsion system for SEPTA Norristown project.	11/87	12/87
ACEC (Belgium)	Strategic analysis of transit equipment for N. America.	4/87	11/87
Stone & Webster (Canada)	Preliminary and conceptual design of substation for Toronto Transit Commission.	9/86	6/87
UTDC (Canada)	Technical/contractual audit of equipment for subway car.	1/87	3/87