CURRICULUM VITAE

Mitchell Patenaude, P.Eng.

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EXPERT SUMMARY

Mr. Mitchell Patenaude is a Senior Associate with the Transportation & Safety team at 30 Forensic Engineering. Mitchell has eight years of experience in Traffic Engineering and Transportation Planning, bringing a high level of technical expertise to multi-modal transportation modelling utilizing multiple industry recognized traffic simulation software tools and techniques, including Synchro, Vissim, HCS, and HSS. He is also well-versed in multi-modal assessments using various industry MMLOS guidelines. Mitchell has extensive experience conducting safety assessments, including employing predictive collision analysis techniques as part of preliminary and detail designs and undertaking cost benefit analysis for different intersection treatments / traffic control measures. He also has considerable experience evaluating construction staging impacts and developing traffic managements plans in support of detail design projects for municipalities and MTO projects. In recent years, Mitchell has also developed considerable experience in providing Transportation Planning services, including Transportation Master Plans (TMPs) and Municipal Class Environmental Assessments (MCEA), with experience in both the planning and design processes.

SPECIALIZED PROFESSIONAL COMPETENCIES

- Transportation and Traffic Engineering
- Transportation Planning
- Functional Design
- Active Transportation Planning
- Parking Studies
- Multi-Modal Transportation Master Plans
- Transportation Modelling
- Traffic Management
- Road Safety Analysis

ACADEMIC BACKGROUND

Bachelor of Civil Engineering, Carleton University, Ottawa, Ontario (2016)

ADDITIONAL COURSES

ESRI ArcGis Pro: Essential Workflow

Professional Development Institute: How to Write Effective Reports

PSJM Project Management Bootcamp

PTV Vissim Dynamic Assignment Training Course

PTV Vissim Introduction Training Course

CITE Complete Streets Workshop

CITE Traffic Calming Workshop

OTC OTM Book 18 / Controlled Intersections Training Workshop

PROFESSIONAL EXPERIENCE

30 Forensic Engineering

Senior Associate, Transportation
2026 – Present, Ottawa, ON

- Lead and manage transportation engineering projects with a focus on municipal roads and safety
- Conduct detailed site/forensic examinations/investigations and technical analysis
- Lead forensics assessments related to road design, construction, winter maintenance, and road safety audits
- Provide expert analysis and recommendations relating to complex engineering assignments in road design, construction practices, and safety
- Perform road safety audits/investigations, collision analysis (vehicles, pedestrians, cyclists), and proactive safety reviews for municipal and highway road networks
- Review engineering drawings and specifications for compliance with transportation standards, regulations, and transportation/civil engineering guidelines
- Collaborate with clients, legal teams, and stakeholders to deliver clear, evidence-based insights and reports
- Act as Project Manager, ensuring timely delivery, quality control, and budget management
- Prepare technical reports, proposals, and client presentations
- Provide mentorship, guidance, and technical oversight to junior and intermediate staff
- Attend and contribute to client, stakeholder, and public meetings
- Communicate technical findings and recommendations effectively to both technical and non-technical audiences
- Support business development efforts by identifying private and public sector opportunities, preparing proposals, and maintaining strong client relationships

Robinson Consultants Inc.

Project Engineer, Transportation Services
2024 – 2026, Ottawa, Ontario

- Lead Transportation Engineer on multi-disciplinary projects such as EAs, Functional Designs, and Transportation Master Plans (TMPs)
- Conducted all facets of transportation planning and traffic assessment studies, including multi-modal analysis and report writing
- Utilized traffic engineering software such as Synchro 12, Arcady/SIDRA, and HCS to analyze traffic operations in addition to Vissim microsimulation in support of freeway operations and unique urban studies such as road diet and pedestrianization studies
- Performed various tasks associated with traffic engineering and transportation planning such as ArcGIS mapping, site access and circulation reviews using the Auto Vehicle Tracking suite for AutoCAD, traffic warrants (signals, all-way stops, PXOs, left turn lanes, etc.), assessing active transportation facilities (Book 18), collision analysis (including FHWA and HSS predictive collision methods and ArcGIS spatial analysis tools, stopping sight distance reviews, etc.
- Utilized design guidelines such as TAC (Traffic Calming, Geometric Design and Roundabout Design Guidelines), OTM Books 5, 6, 7, 12, 15, and 18, NACTO, HTA, etc., as well as various region-specific guidelines
- Led and undertook development of winning proposals in response to RFPs for all types of Transportation Planning and Traffic Engineering projects

Egis (formerly McIntosh Perry)

Transportation/Traffic Engineer
2017 – 2024, Ottawa, Ontario

- Lead Transportation Engineer on multi-disciplinary projects such as EAs, Functional Designs and Transportation Master Plans (TMPs)
- Conducted all facets of transportation planning and traffic assessment studies, including multi-modal analysis and report writing
- Utilized traffic engineering software such as Synchro 12, Arcady/SIDRA, and HCS to analyze traffic operations in addition to Vissim microsimulation in support of freeway operations and unique urban studies such as road diet and pedestrianization studies.
- Performed various tasks associated with traffic engineering and transportation planning such as ArcGIS mapping, site access and circulation reviews using the Auto Vehicle Tracking suite for AutoCAD, traffic warrants (signals, all-way stops, PXOs, left turn lanes, etc.), assessing active transportation facilities (Book 18), Collision analysis (including FHWA and HSS predictive collision methods and ArcGIS spatial analysis tools, stopping sight distance reviews, etc.
- Utilized design guidelines such as TAC (Traffic Calming, Geometric Design and Roundabout Design Guidelines), OTM Books 5, 6, 7, 12, 15, and 18, NACTO, HTA, etc., as well as various region-specific guidelines
- Led and undertook development of winning proposals in response to RFPs for all types of Transportation Planning and Traffic Engineering projects

PROFESSIONAL SOCIETIES AND ASSOCIATIONS

- Professional Engineers Ontario (PEO), Member