



Job Specification

Position Title: TRAFFIC PROJECT SPECIALIST
Job Code: AMAPCEO - Engin & Survey Supp(A/U)TEN17, 17TEN
Job ID: 13495

Purpose of Position:

To provide safe, effective and efficient coordination of traffic engineering operations related to regional transportation issues/projects and to ensure appropriate project co-ordination and conformance with Ministry policies, procedures and objectives.

To provide group and project leadership to Traffic Analysts for the co-ordination, conducting traffic data management/collection, traffic operations studies, investigation and projects. To provide technical expertise in the development and implementation of operational methods, systems and other solutions to resolve issues. To provide technical consultation and advisory services to regional management (Contracts, Highway Engineering, Corridor Management, and Operational Services) municipal representatives and other external agencies in the identification, review and resolution of traffic information and operations issues.

Duties/Responsibilities:

Provides technical expertise and leadership related to the review, analysis and reporting on traffic operations in areas such as traffic characteristics, traffic demand and forecasting, collision analysis, roadside safety, traffic control signal systems, signing, pavement markings, illumination, traffic data collection/management and analysis. Conducts traffic impact studies to assess the traffic impact of development proposals on the provincial highways and makes recommendation as required.

Plans, prioritizes, co-ordinates and conducts a range of studies, investigations or projects to identify traffic operations issues and to develop appropriate solutions and countermeasures (eg. capacity and/or safety deficiencies). Conducts on-site investigations to assess traffic operations, including operations within construction areas. Co-ordinates the identification and analysis of collision prone locations and recommends remedial action, including removal/protection of roadside hazards. Reviews traffic signal operations and makes recommendations for changes to configurations, timing etc. to improve safety and efficiency. Provides input to the planning and development of priorities for the regional program capital improvements (e.g. traffic signal systems) based on the results of studies and investigations.

Provides group leadership to the Traffic Analysts through the provision of ongoing orientation and training on section procedures, directions and technical issues.

Co-ordinates assignment of tasks to team members (including Traffic Analysts) when conducting complex projects; provides technical direction and group leadership to Traffic Analysts. Assists the supervisor in identifying program needs and need for consultant assignments (i.e. data collection, loop installation, programmed inventory, turning movement counts, and specialized traffic control devices) to undertake or assist in traffic operation investigations and projects. Lead and/or participate in consultant/contractor acquisition process by preparing/reviewing consultant/contractor assignment documents, evaluating submissions, directing and advising consultants/contractors in the conduct of assigned projects in accordance with ministry policies and standards. Monitors project progress, ensures appropriate financial and scheduling control and recommends fee adjustments where necessary. Reviews proposals/designs and documentation to ensure technical correctness. Drafts consultant/contractor performance appraisals for assignments.

Develops safe and effective traffic control measures for construction and maintenance activities including review of work prepared by consultants/contractors and determines signing, traffic signals, and operational constraints. Ensures that recommendations are implemented, both in the office and on site; advises on technical problems and modifies original traffic recommendations if required, to suit actual site conditions; performs subsequent analysis to ensure desired operations are achieved.

Provides advice and consultation services to internal/external clients on a variety of traffic engineering, traffic management methods and transportation planning principles including highway design, traffic control measures, policies, standards, legal requirements, capital safety priorities, traffic and incident management programs, and advanced traffic management strategies. Liaises with external agencies to co-ordinate traffic operations during pre-contract engineering and construction. Develops and drafts advice for senior regional management for approval of supervisor.

Oversees the testing and evaluation of new devices or methods to improve safety and operational efficiency within construction and maintenance areas.

Reviews legal plans for the implementation of new traffic control signals and phasing, and the design and implementation of integrated signal systems.

Investigates and drafts responses to inquiries from government agencies, and the public. Drafts responses for elected officials and meets with representatives from police forces, municipalities, school boards, safety committees, municipal councils and others, as necessary to resolve traffic operational concerns for review by supervisor. Promotes and maintains consistency in the usage of recognised traffic management techniques by providing advice/recommendations to other ministry offices, municipalities, and consultants.

Prepares recommendations for legislative amendments to relevant Acts & Regulations. Prepare Minister briefing notes and proposed responses for senior management approval. Reviews and/or comments on draft directives or proposed changes to Ministry policies and procedures.

Co-ordinates the research and preparation of legal documents in consultation with staff in the Legal Services Branch for use by expert witnesses in court proceedings, coroners inquests and other formal hearings as required.

Represents the ministry on technical working/advisory committees, value engineering studies, inter-ministry committees, taskforces and transportation studies to represent regional or provincial interests and provide technical assistance to municipalities.

Knowledge:

Knowledge of the consultant acquisition and management process. Knowledge of transportation planning, engineering and technology to resolve traffic related issues and provide technical guidance and work direction, team leadership to staff and expert guidance to internal/external clients. Work requires general knowledge of ministry programs, operations and construction practices to manage projects, develop traffic staging/traffic control, provide input to planning studies and construction contracts. Knowledge of ministry policies, procedures, guidelines and standards (ie: OTMs, etc) and relevant Acts and Regulations related to traffic engineering (i.e: HTA, MSVA, ORVA, PTHIA, OHSA etc). Work requires knowledge of traffic engineering theories, principals and practices, (ie: traffic operations and characteristics, traffic demand and forecasting, collision analysis, roadside safety, traffic control signals and systems, signing and pavement markings, illumination, traffic data collection management and analysis) to provide input into planning and preliminary designs. Work requires knowledge of human factors engineering to provide effective application of traffic design related to driver behaviour and vehicular operation. Ability to interpret and relate engineering plans and drawings to driver behaviour and traffic operations and to provide technical expertise to internal/external clients. Work requires general knowledge of highway engineering theories, principals and practices to assess traffic impacts. Work requires knowledge of existing and new traffic technology (pavement marking, traffic signals, vehicle detection systems, etc) to provide analysis and expert advice.

Work requires project management and group leadership skills (including prioritisation, budgeting, scheduling, coordination and negotiation skills) to manage multiple projects simultaneously. Group Leadership skills to plan, organise and prioritize project requirements, and to direct and guide project participants including Traffic Analysts and external contractors/consultants.

Work requires communication/presentation skills to effectively convey issues/recommendations to clients, respond to inquiries and resolve technical issues. Written communication skills to prepare reports, project plans and formulate recommendations. Interpersonal skills to establish and maintain effective working relationships with internal/external clients. Analytical/research skills to evaluate existing/potential traffic operational problems. Advisory/consultation skills to provide advice to external clients and assist supervisor with providing advice to senior management on traffic operations issues and to recommend polices, procedures and systems enhancements.

Knowledge in the operation of computer systems and software (e.g. relevant traffic engineering software, AutoCad, word processing, spreadsheet, database, e-mail) to access and analyze traffic data, conduct simulations and to prepare reports and presentations.

Requirement for a valid Class "G" drivers licence.

Judgement:

Work is performed under the general direction of a supervisor and within the broad framework of the ministry and regional mandate and policies related to traffic management for the region. Judgement, initiative and independent problem solving ability are required in developing and evaluating alternative proposals for traffic engineering, safety and operational issues and presenting sound effective recommendations regarding traffic policy, procedure and systems. Judgement is required in establishing and adjusting schedules, making recommendations regarding safety and operational issues, in providing technical guidance to internal/external clients. Judgement is exercised in planning, prioritising and coordinating traffic operations studies, investigations, projects, data collection and analysis. Judgement is required in giving expert advice and making recommendations to internal /external clients relating to traffic engineering practices and processes, interpreting and applying policy when resolving technical problems. Decisions related to issues which deviate from ministry policy are discussed with the supervisor.

Skill and judgement is used in negotiating and responding to the demands of the general public on routine controversial or sensitive traffic issues. Work is accepted as technically accurate and is reviewed for quality and overall effectiveness and for conformance with Ministry standards, practices, policies and procedures.

Accountability - Programs:

Accountable for the planning, coordinating and conducting various concurrent traffic operations reviews, investigations and projects within the Region; meeting project deadlines and ensuring project delivery in a timely manner; the provision of expert technical advice to internal/external clients in a timely manner, and the development/ implementation of solutions to traffic operations issues. The position makes recommendations related to traffic operations legislation, participates in development of policies, procedures and systems. The position is accountable for ensuring accurate advice is given to internal and external clients including developers.

Accountability - Personnel:

Provides technical direction and guidance to project consultants, contractors and internal staff. The position provides group leadership to staff in coordinating assignments within deadlines.

Accountability - Finance & Material:

The position recommends, to the supervisor, the retention of external consultants/contractors as required for projects, monitors the delivery of contract services, and recommends the payment of consultant/contractor invoices. Negotiate addenda and recommend approval of additional work and scope changes.

Accountability - Impact of Errors:

Accountable for the thoroughness and accuracy of traffic operations analysis, data collection and analysis and the development of appropriate solutions to issues to ensure the safety/efficiency of traffic flow on provincial highways. Errors in judgement could result in adverse traffic operations jeopardizing safety and delaying the travelling public and having potential for litigation. Errors in judgement related to routine procedures could adversely impact on the ministry's credibility with the public, municipal authorities, other ministry officials, police and consultants. Inaccuracies in data collection can negatively impact on Ministry program costs (i.e. over/under design or construct). Errors in judgement could result in claims against the ministry or delay program delivery.

Contact - Internal:

The position requires regular contact and interaction with other staff and management of the traffic section; and other sections/offices of the region to provide expert technical guidance and advise on traffic operational issues. Frequent contact with colleagues in head office and other areas of the ministry to exchange technical information and provide advice related to traffic operational issues. Occasional contact with senior management of the ministry to advise on project progress and results of traffic operational reviews.

Contact - External:

The position has regular external contacts including the public, municipalities, police, emergency response agencies, developers, legal firms, elected officials, special interest groups and other external agencies to provide technical advice related to traffic operations and highway safety. The position has regular contact with external contractors and consultants to provide technical guidance/advise. The position provides traffic expertise and may represent the ministry on steering committees, taskforces and municipal council meetings etc.