

Majid Alikhani, P.Eng. PMP, CEM Bio

Solid background in consultation and execution of engineering services projects with over 20 years of experience and more than 80 successful projects in rail and transit, commercial, industrial, institutional & healthcare, mining, oil & gas, chemicals, and power generation. Demonstrated knowledge in engineering regulations, codes, and standards such as OBC, OFC, CSA, ASME, ANSI ASHRAE, NFPA, SMACNA, and TTC and Metrolinx design manual and specifications. Majid's areas of expertise include development of concepts and detailed design, specifications, project schedules, site support, contractor performance to ensure satisfactory contractual obligations, and quality assurance.

Majid has led and monitored all phases of HVAC and building services projects, including feasibility study, budget estimate, thermal load calculation, ductwork, and pipe sizing, selecting HVAC equipment, controls, and BAS. He brings extensive experience in design change procedures, requisitions, technical bid evaluation and commissioning processes.

He has strong skills in site inspection to verify manufacturing compliance with drawings & technical specifications, performing visual and dimensional inspections as per specifications and standards. project development cycle including strategic planning and analysis, executing, monitoring, and controlling, closing and delivery.

Relevant Project Experience

Rouge Hill Station - Metrolinx, Ontario

Role: Project Lead, **Scope:** Led the team to provide building services and mechanical systems services for RCD Design Submission for the station building, entrances, access points, and platforms, including mechanical specifications and design reports, load calculations, HVAC system and layout, plumbing and fire protection systems, sanitary and storm drainage system, controls, and BAS systems.

Finch-Kennedi Smart Track Station, Ontario

Role: Project Lead, **Scope:** Led the team to provide building services and mechanical systems for the station building and entrances, emergency exits and platforms, including mechanical specifications and design reports, load calculations, HVAC system and layout, plumbing and fire protection systems, sanitary and storm drainage system, controls, and BAS systems.

RER Package 2 – East Harbour Station, Ontario

Role: Senior Mechanical Engineer, **Scope:** Mechanical design and compliance review, including RCDs, schematics, and design basis report against DRM, Metrolinx master specifications, TTC design manual, codes, standards and regulations.

Scarborough Extension Project, Toronto

Role: Development of PSOS based on TTC and Metrolinx design manuals, applicable codes and standards for HVAC & building services engineering work, including headhouses, station buildings, TPSS, EEB and bus operation facilities. Development of design criteria and room data sheets according to TTC/ Metrolinx specific requirements for new extensions

crossing agreement. Desktop study for geotechnical, site surveys (topographic and underground scan), tree clearing and grubbing for the corridor and designed drainage system around pipeline corridor to make sure surface water flow as per existing topography.

City Hall and South Grandville Subway Stations, Broadway Line – Vancouver, BC

Role: Senior Mechanical Engineer, **Scope:** HVAC, building services and fire protection engineering work, including headhouse, concourse and platform levels. Fire sprinkler and standpipe combined system design based on NFPA 13 and 14, building automation system (BAS) architecture design.

Lakeshore West & Eglinton stations, Metrolinx - P3 Project, Ontario

Role: Project Lead, **Scope:** Mechanical system package for new lakeshore west station including preliminary study, HVAC & building services design, preparing specifications and design reports, thermal loads and ventilation calculation, selecting and sizing mechanical equipment, sanitary and storm drainage system, plumbing and fire

protection system, BAS architecture system design, interdisciplinary and stakeholders coordination.

City of Hamilton Transit maintenance Facility

Role: Project Lead, **Scope:** HVAC & building services engineering for the City of Hamilton Bus Station for a new 45,000 sq. ft. office and management area on a 500,000 sq. ft. maintenance and storage facility with the capacity of 300 buses. Prepared mechanical system and building services preliminary study, performing preparation of engineering deliverables including specification set, 3D models in Revit, Heating, cooling and ventilation calculation based on ASHRAE 62.1 latest edition, mechanical equipment selecting, sizing and arrangement, fire sprinkler and standpipe combined system based on NFPA 13-2019 and NFPA 14, interdisciplinary coordination. Awarded as a First Natural Gas indoor fueling and maintenance facility by the management team.

Mc Brien Building – TTC Data Center

Role: Project Lead, **Scope:** Prepared technical assessment, conducted peer review on previous proposals, and provided a new proposal based on three options to optimize the existing HVAC system in terms of airflow management, efficiency and increasing the overall project life cycle up to 7 years. Led detailed project design and produced engineering documents. The scope consisted of preparing the layout and arrangement of IT racks, load calculation, construction phasing, selecting, and sizing HVAC Systems with the primary objective of maximum efficiency, no data center downtime and optimum budget.

Kingstone Healthcare facility

Role: Project Lead, **Scope:** Led and managed designers through the design phase and the preparation of the drawings and engineering documents. Performed multidisciplinary coordination to ensure the documents are created to meet the client's technical requirements and standards. Coordinated work with vendors to match the equipment's technical specifications with the client's requirements and value engineering activities. Prepared various status reports for the Project Manager and performed related administrative duties as assigned to meet project requirements and commitments.

Exxon Mobile/ Flour Project, West Qurna

Role: Mechanical Project Engineer, **Scope:** Performed review and validation of piping material specifications and design criteria on behalf of Contractor (Kentz) to ensure conformance with codes, standards, regulations, and client requirements. Reviewed piping thickness calculations based on design conditions for critical and non-critical pipelines.

Other Projects

- Ford Research Center, Waterloo
- Grand River Transit Maintenance Facility, Waterloo
- Ashbridges Bay Wastewater Treatment Plant
- Saskatoon International Airport
- Texas Clean Energy Project (TCEP), TX
- Mining Group- Umm Waal Phosphate Project, KSA
- 2000 MTPD Sulphuric Acid Plant, SERRITT International Inc., Moa Bay, Cuba