# **Cameron Tilley**

M.Eng., P.Eng.

(905) 818 - 3060 c.maccarthytilley@gmail.com 1906-2191 Yonge Street Toronto, Ontario, M4S 3H8

# Re: Associate, Construction, Codes & Standards Position at 30 Forensic Engineering

I am very interested in pursuing an associate position with 30 Forensic Engineering as I believe that this position is an excellent opportunity to extend my technical background in engineering consulting, building restoration, and construction. This is a prime position to allow me to apply my knowledge of site investigation, construction review and contract administration that I have gained undertaking building restoration engineering consulting / construction projects with municipal and private clients, as well as completing building condition assessments and capital planning at various residential, commercial, and institutional facilities.

I completed my Bachelors of Engineering degree at McMaster University in the spring of 2014 within the Civil Engineering discipline, graduating with distinction. In my undergraduate studies, I completed a mixed specialization which included courses in structural engineering, water resource and municipal engineering, as well as construction management. After completing my undergraduate degree, I decided to further my studies at the University of Toronto within a Master of Engineering program which I completed at the end of April 2015. Throughout my Master's degree, I focused my studies on cities and urban infrastructure, resilience of critical infrastructure, and infrastructure / concrete rehabilitation strategies.

My working experience has included project based experience with a smaller engineering consulting firm, Build Max Limited in Toronto. I gained over two years of consulting experience working in building restoration projects for both private and public sector clients including but not limited to; leak and envelope failure investigations, structural repairs of concrete, wood and steel, underground parking garages, waterproofing, roof assemblies, cladding, and glazing. My project management experience includes all stages of a project from an engineering aspect including; initial investigation and assessment, modelling and analysis, design and technical specification development, gathering of appropriate approvals through municipal avenues (building permits, heritage approvals, street access permits, etc.), construction tender, contract administration, and construction site review. As a project manager, I gained extensive experience in review of technical reporting and drawings, project scheduling, cost and resource budgeting, and communication with clients and contractors through the life cycle of a project.

I moved into a building science and cost consulting position with Altus Group in 2017, which has involved site review and preparation of detailed building / facility condition assessments and deferred capital expenditure plans for residential, commercial, and institutional facilities. I have also been involved in feasibility studies regarding existing facilities or buildings, and planning rehabilitation or replacement of these buildings. The scope of the facility reviews that I have completed includes; structural, architectural, mechanical, electrical, and fire / life safety building components, as well as building code requirements for varying types of facilities. Much of my condition assessment work has involved preparing technical condition or feasibility reports, which are to be used by clients seeking funding or in capital reserve planning moving forward and this has emphasized the importance of clear, concise and correct writing technical writing. This experience has provided me with significant insight into asset maintenance and capital planning completed by the private and public sectors, as well as life cycle management and the scope of construction work projected for building / site components.

My project management experience of restoration and construction projects combined with my facilities condition assessment experience has allowed me to be knowledgeable and technically experienced. Through my working experience, I have been recently issued my Professional Engineer (P.Eng.) licence, which is indicative of the professionalism and attention to detail that I apply to every investigation or project that I am involved in. I appreciate the consideration given to my submission and I would enjoy the opportunity to meet with you to discuss further.

Sincerely,

Cameron Tilley, M.Eng., P.Eng.

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Professional Engineer with a consulting background in project management, building science, structural and facility condition assessment related to residential, commercial, and institutional buildings. Experienced and proficient at site investigations, technical reporting, specification / design, and contract administration. Graduate education focused on the design challenges of urban settings and infrastructure rehabilitation and with working experience in the real estate, development, and restoration industries.

## **Education**

#### Master of Engineering (M.Eng.) in Civil Engineering - University of Toronto

Sept. 2014 - June 2015

- Specialization in cities engineering and management, infrastructure resilience and rehabilitation strategies.
- Major topics of study included; public policy and the economics of infrastructure development, systems and data analysis related to urban settings focus on the Greater Toronto Area, risk and resilience planning of physical infrastructure, construction law / contract documents, and rehabilitation of physical infrastructure.

#### **Bachelor of Engineering (B.Eng.)** in Civil Engineering – McMaster University

Sept. 2010 - June 2014

- Civil Engineering degree in structural and municipal / water resource engineering. Course experience in engineering analysis and design of steel and concrete structures, geotechnical, transportation, municipal hydraulics, and hydrology.
- Capstone project involved structural design of a low rise steel mixed use building, and a redevelopment plan for the North Hamilton waterfront.
- Graduated with highest honours, summa cum laude.

## **Licenses and Certifications**

## **Professional Engineer (P.Eng.)**

January 2019

- Licensed with Professional Engineers Ontario (PEO) – Licence # 100221726

#### **Work Experience**

#### **Altus Group Limited** – Toronto, Ontario

#### Analyst – Cost & Project Management, Building Science

June 2017 – present

- Responsible for completing site assessments of institutional, commercial, and residential buildings to produce detailed condition assessment reports. Review of architectural, structural, mechanical, electrical, fire life safety systems and building code review.
- Prepared detailed building and facility assessments (property condition assessments meeting ASTM E2018 guidelines), technical and performance audits, due diligence reviews, capital planning, feasibility studies.
- Completed quantity takeoffs of site and building areas, estimated repair areas, and replacement cost estimates for future capital construction projects.
- Responsible for preparation of deferred capital expenditure plans for various facilities, including private and public sector clients. Coordination of costs across various disciplines (architectural, structural, mechanical, electrical, etc.). Utilization of cost estimation databases and software, detailed financial analysis in Microsoft Excel.
- Familiarization with the real estate industry within the GTA, construction and replacement values of buildings, and the development process.

### **<u>Build Max Limited</u>** – Toronto, Ontario

# **Project Manager – Building Science**

*April* 2016 – May 2017

- Progressive responsibility from technical specialist role in building science, restoration, and structural projects and/or investigations including but not limited to; roof replacements, cladding and wall repairs, window and glazing retrofits, balcony and underground parking garage rehabilitations, waterproofing, foundations and footings, concrete slab-on-grade, and steel structures.
- Responsible for monitoring and managing internal teams of technical specialists, drafters, and coordination of design reviews with senior staff.

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- Coordination of multi-disciplinary project teams involving mechanical / electrical sub-consultants, varied contractor trades, municipal authorities, and other stakeholders as necessary.
- Acted as a single point of contact to public and private clients / owners on projects up to \$5 million in construction value.
- Responsible for overall project controls and contract management, including: budget and schedule tracking, change
  order management, contractor payment certification, issuing substantial completion documents, and preparation of
  construction progress reports.
- Completed projects with both private condominium and municipal clients in the GTA, including responding to municipal requests for proposal (RFP's), managing the construction tender process, coordination with owner and contractor representatives, and bid analysis.

## Technical Specialist - Building Science

April 2015 – March 2016

- Project experience in design and analysis of concrete, steel, wood, and masonry structures, building envelope components, energy modelling and calculations.
- Responsible for completing various site investigations, failure investigations and testing of various building envelope and structural / architectural components; roofing, cladding, windows, waterproofing, underground parking garages, and concrete.
- Completed regular construction site visits and reports during construction phase of a project.
- Preparation of technical specifications and drawings and assisted with contract administration of building restoration and new construction projects.
- Experienced with the preparation and interpretation of unit or stipulated construction contracts, specifically CCDC-2 and CCDC-4
- Working experience and knowledge of the Ontario / National Building Codes, other applicable construction codes, and general construction practices.

## McMaster University - Hamilton, Ontario

## **Undergraduate Teaching Assistant**

Sept. 2012 - April 2014

- Structural Mechanics 2C04 and Communications in Civil Engineering 2103, second year courses at McMaster University within the Department of Civil Engineering.
- Responsibilities included; leading labs and tutorials, course workshops, marking reports, midterm tests and exams, invigilation, student/professor communication, and holding regular office hours.

# **Skills and Other Experience**

# **Computer and Other Skills**

- Proficient in *Microsoft Office* (Word, Excel, PowerPoint).
- Experience with *AutoCAD* for engineering drafting.
- Experience with Microsoft Project and other scheduling / project management software.
- Strong ability to read and understand technical architectural, structural, mechanical, and electrical drawings, reports, and other documentation to gather appropriate conclusions and make recommendations.

## **Educational Research Papers and Reports**

- Impacts of National Policies on Infrastructure Resilience, Canada, the United States and UK, APS1024 Infrastructure Resilience Planning, University of Toronto, 2014.
- *Economic Impacts of Urban Infrastructure* Study and analysis of Toronto Infrastructure, the regional economy, and the 'Big Move' Infrastructure Plan for the City. CEM1003 Infrastructure and Urban Prosperity at University of Toronto. 2015.
- Desktop Risk Assessment and Calculation Plan for Logistics Facility in Kabul, Afghanistan APS1024 Infrastructure Resilience Planning, University of Toronto, 2014.