1607-145 Marlee Avenue Toronto ON M6B 3H3 Cell: (647) 470 – 2740 nielbrentyee@gmail.com

LinkedIn: ca.linkedin.com/in/nielyee/

EDUCATION

Masters of Engineering (Structural/Forensic), Civil Engineering

August 2019

University of Toronto – Galbraith Bldg, Toronto, ON M5S 1A4, Canada

Relevant Courses: Pavement Design and Construction, Dynamics of Structures, Structures Under Blast and Impact, Concrete Technology and Non-Destructive Testing, Forensic Engineering, Construction Administration and Construction, Construction Contract Documents, Building Information Modelling, Quality Control for Engineering Management

Bachelor of Engineering, Civil Engineering

June 2016

Ryerson University – 350 Victoria St, Toronto, ON M5B 2K3

Relevant Courses: Strength of Materials I & II, Hydrology and Hydraulics, Geotechnical Properties of Soils, Fundamentals of Surveying, Concrete Materials, Structural Reinforced Concrete Design I & II, Structural Analysis, Highway Materials, Steel Design, Building Systems Design, Project Management, Bridge Design and Construction

Technical Published Paper: Design Alternatives for a Steel Truss Bridge (CSCE Conference, 2016)

Building Information Modeling (BIM) Fundamentals Course

March 2017

George Brown College – 160 Kendal Avenue, Toronto, Ontario, Canada M5R 1M3

Revit Architecture Certificate

In Progress

George Brown College – 160 Kendal Avenue, Toronto, Ontario, Canada M5R 1M3

Construction Estimating Certificate

In Progress

George Brown College – 160 Kendal Avenue, Toronto, Ontario, Canada M5R 1M3 Relevant Courses: Construction Estimating, Residential and Commercial

AutoCAD Certificate 2D and 3D

April 2014

Ryerson University/ Metro College – 350 Victoria St, Toronto, ON M5B 2K3

SOFTWARE EXPERIENCE

AutoCAD: Monthly construction staging for delay claim purposes; pony truss bridge capstone design; bridge abutment concrete and reinforcement capstone design.

SAP2000: Load combinations (axial, dead load, live load, truckloads, and temperature) analysis for truss members for a capstone design project; abutment design to determine maximum compressive and tensile loads for a capstone design project; various analysis of elements.

Microsoft Project and Excel: Commissioning of systems for the Leslie Connection Track project; sequencing of field operations for the Metrolinx Asset Management project; interactive project control documents to assess cost, action items, and project progress.

Revit: Developed 2D and 3D modeling of a residential academic report.

Bluebeam Revu: Developed as-built drawings and markups; collaborated with team members to display changes to live project documents.

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PROFESSIONAL EXPERIENCE

Entuitive: Contract Administrator

(Metrolinx – Union Station – USEP; Crosslinx – Eglinton Crosstown Station Infrastructure)

- Engineering Tasks:
 - o Proposed alternative structural designs to the Engineer-on-Record based on CSA A23.1, CSA A23.3, S14, Reinforcement Steel Manual of Standard Practice (RSIC).
 - o Reviewed structural drawings based on the contract documents.
 - o Responded to Request For Information (RFI) based on the contract documents.
 - o Conducted site field reviews and issued site visit reports.
- Represented the owner on reviewing progress billing and other administrative duties.
- Generated Site Instructions and Contract Change Notices as necessary to support the project.
- Prepared meeting minutes, record quantities, and other related documentation.
- Provided on-site construction supervision.
- Ensured construction work is carried out in general conformance to the approved construction documents.

AECOM: Construction Supervisor & Project Coordinator
(TTC – Scarborough Center Station Design, Union Station Upgrades; Metrolinx – Presto Wave 4 Fundamental Upgrade,
Facility Asset Assessment, Aldershot GO Station Upgrades)

- Engineering Tasks:
 - o Assessed the condition of various Metrolinx station and maintenance yard structures.
 - o Structural visual inspection of existing Metrolinx station bridges, station building, and utility services.
- Coordinated and support the design efforts of multi-disciplinary teams for a transit expansion project for the Toronto Transit Commission (TTC)
- Coordinate and communicate with client regarding critical deliverable and change order items
- Estimated design changes and scope changes for Metrolinx and TTC projects.
- Established the process and prioritization of action items for all design disciplines. Inform the Project Manager for action that are critical.
- Coordinated construction staging with the contractor to minimize impact on commuters and station operations.
- Prepared meeting minutes, daily reports, record quantities, and other related documentation.
- Provided on-site construction supervision.
- Ensured construction work is carried out in general conformance to the approved construction documents.

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Pomerleau Inc: Quality Project Coordinator May 2016 – September 2017 (TTC and City of Toronto – Leslie Connection Track Project; MTO – Cataraqui Bridge Replacement Project)

- Engineering Tasks:
 - o Designed and assisted in the execution of traffic control, staging plans, work methods as per the Ontario Traffic Manual (Book 7). Inspected layout of existing site traffic and coordinated any adjustments required.
 - o Performed vibration analysis during bridge demolition and construction using a Geonor Instantel Minimate Pro equipment. Daily vibration histogram values (mm/s) compared to the baseline values.
 - o Inspected paving operations on highway 401 for minor to severe segregation of asphalt. In addition, coordinated and inspected sampling operations of asphalt.
 - o Inspected and coordinated QVE inspection of pile foundation operation while traffic was in operation at the highway construction speed limits.
 - o Inspected backfilling operation and performed QA checks during granular Control Strip testing as per OPSS 501. Provided recommendations to the amount of water to add on the area in order to determine the optimal maximum density.
 - o Inspected reinforcements and provided adjustment recommendations to the design due to various site conditions. Proposed design revisions to fit current field condition to the Project Engineer.
 - o Coordinated the delivery of normal concrete to prevent the development of cold joints and stay within the allowable discharge time limit.
 - o The City of Toronto standards and Ontario Provincial Standards for Roads and Public Works (OPSS series) heavily influenced my inspections and field engineering.
- Collaborate with client and subcontractors to solve field design and construction issues.
- Provide technical support to subcontractors and quality assurance inspectors as per the OPSS.
- Plan and execute commissioning processes of numerous systems.
- Coordinate quality control processes and procedures.
- Negotiate and generate progress payment certificates to subcontractors and clients.
- Develop project schedules and perform delay analysis.

Pomerleau Inc: Quality Inspector/ Site Coordinator (TTC and City of Toronto – Leslie Connection Track Project)

April 2014 – September 2015

- Heavily involved in the quality inspection and field engineering of various activities involving concrete, steel reinforcement, storm and sanitary sewers, road works, landscaping, subsurface utilities, and track systems.
- Engineering Tasks:
 - o Inspected and ensured conformance of materials delivered to site and work methods performed on the project.
 - o Analyzed and differentiate sound concrete and hollow concrete in order to perform rehabilitation of a newly constructed structure.

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- o Coordinated the delivery of normal and high early concrete to prevent the development of cold joints and stay within the allowable discharge time limit.
- o Recommended concrete admixtures to add to loads in order to ensure the concrete is as per the mix design.
- o Inspected reinforcement and provided adjustment recommendations to the design due to various site conditions.
- o Provided quality reports to the Quality Manager based on the Quality Control policies.
- o The City of Toronto standards and Ontario Provincial Standards for Roads and Public Works (OPSS series) heavily influenced my inspections and field engineering.

ACCOMPLISHMENTS/ CERTIFICATES

Certifications:

Engineer-In-Training (E.I.T.)

June 2016

Safety Trainings:

Metrolinx CMO Contractor Orientation	March 2018
TTC Subway/SRT Contractor Track Level Pass	September 2017
Working at Heights - IHSA	April 2017
Supervisor Health and Safety Awareness – Ministry of Labour	April 2017
Emergency First Aid CPR/AED Level C – Canadian Red Cross	January 2016

Academic Accomplishments/ Certificates:

Dean's List – 4.1/4.33 GPA

Design Alternatives for a Steel Truss Bridge (CSCE Conference, 2016)

September 2015 - April 2016

June 2016