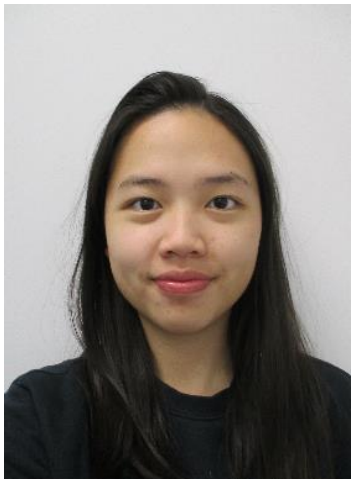

Michelle J. Martinez
Building Science Technologist

Michelle Martinez is a graduate of the Architectural Science program at Ryerson University. She has a B. Arch degree and a specialization in Building Science. In her Architectural Science undergrad, Michelle collaborated with a team of 10 and took part in a research project called ArcHelio, which focused on the analysis of a building envelope's thermal efficiency and the collection of solar energy. Because of her passion for building performance research, she was awarded with the Building Science Studio Award.

Professional History

Accent Building Sciences Inc.
Toronto, ON, 2017 to present

NOVA TAYONA ARCHITECTS
May 2014, October 2015

Education

Ryerson University, Toronto
Bachelor of Architectural Science, Co-Operative Education – 2011 – 2016

Related Training

2016 Building Science Studio Award

2013 – 2014 & 2015 – 2016 Faculty of Engineering & Architectural Science Dean's List Recipient

Skills & Abilities

AutoCAD, Revit, Sketch Up, WUFI, THERM, HOT2000, FLIR Thermography Infrared Cameras, Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Microsoft Office Suite, Mac and Windows Operating System

Certification:

First Aid/CPR

Nova Tayona Architects

Michelle used AutoCAD to produce all architectural drawings. She prepared as-built drawings for existing building conditions for clients, coordinated with colleague, conducted and managed site visits for as-built drawings purposes. Michelle monitored and verified the accuracy of site construction to construction drawing packages. She prepared architectural drawings according to zoning-by-laws. Michelle produced promotional drawings, assisted on modifications requested by architect and delivered the requests by the set due dates. Michelle created 3D Sketch Up Models for residential projects during Schematic and Design Development phase. Michelle prepared Construction Document Packages for clients and contractors. Drawings included plans, sections, elevations, details, electrical, structural and millwork. Michelle coordinated with structural engineer to verify and adjust truss sizes and allowances, to determine locations of concrete piles, layout of floor joists and deck framing. Michelle communicated with Municipal Services for zoning inquiries and verifications. She communicated with suppliers to verify sizing of products such as fenestrations, roofing materials, and plumbing fixtures.

ASC 402 Bodily Comfort Systems

Michelle calculated heating and cooling load and selected appropriate mechanical systems. She designed simple HVAC systems for residential buildings, learned how to desire indoor thermal environment is created. Michelle understood how design, construction and operation influence the energy performance and indoor environment quality.

ASC 403 Site Development Planning

Michelle learned techniques for the analysis and planning of sites that respond to human, contextual and infrastructural criteria.

ASC 622 Documentation and Construction Contract

Michelle learned the design and construction documentation systems use in the AEC industry. Michelle created a base Revit Model of an architecture studio design and managed a team of 8 and produced a set of construction drawings using Revit Worksharing Monitor.

BSC 820 Building Science Studio II

ARCHELIO RESEARCH PROJECT – Michelle conducted trials to prove the theory of ArchHelio (possibility of using water as a thermal mass). Michelle gathered solar data and calculated to determine the total solar irradiance reflected off on a silver polymer lens into a body of water.

ENERGUIDE MCGILL HOUSE – Michelle designed a house to meet three sustainability goals including Energuide Rating of 80 or higher, using rainwater to support half of the toilet water use, and supplying 15% of the household electricity consumption back to the grid. Michelle used rainwater harvest design and costing tool to determine the design, sizing and costing of a residential scale rainwater harvesting system. Michelle used hot2000 to analyze the house design's energy performance to meet sustainability goals.

HOME BUILDING RETROFIT – Michelle improved existing single-house dwelling to the standards of a SB-12 home. Determined SB-12 zone category and analyzed home energy performance with hot2000. Michelle used energy reports from HOT2000 to determine the effects of different design implementations such as increasing window wall ratio to 25%, insulating the domestic hot water heater tank, adding a drain water heat recovery system, upgraded windows and electrical appliance to Energy Star qualified products.