Sarah Akua Tweneboah, EIT

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EDUCATION

University of Florida | Gainesville, FL| 2009-2014

• Major: Bachelor of Science in Civil Engineering

Columbia University | New York, NY | 2015-2017

Major: Master of Science in Structural Engineering

WORK EXPERIENCE

MRCE| New York, NY| June 2019 - November 2020

Structural Engineer

- Performed support of excavation staging analysis and stability analysis of a berm excavation. Designed soldier pile, lagging, raker and heelblock system due to loads calculated from staging analysis.
- Designed underpinning for an adjacent 9-story building in order to resist sliding and overturning forces.
- Performed on-site subsurface observation for a state highway project which included inspection of hand drilling, identifying soils and retaining soil samples.
- Went on site visits to observe the installation of soldier piles.

KPFF | New York, NY | January 2017 - May 2019

Structural Engineer

- Designed and detailed concrete column dropheads at column locations where punching shear was of concern due to the location of new mechanical openings in existing concrete slab
- Managed a healthcare project throughout CA, including calls with architect and contractor, reviewing shop drawings, responding to RFI's and attending meetings on site
- Calculated a load take down in order to design open web joists, steel beams, steel gravity columns, concrete footings, concrete
 pedestals, and steel shear connections in accordance with the AISC and ACI codes
- Verified existing roof structure for new loading conditions. Designed and detailed the support and anchorage of an existing roof structure to support new mechanical equipment in Florida where hurricane wind speeds was of concern
- Designed the mat foundation of a cancer treatment center with strict structural requirements in the United Arab Emirates
- Created markups for draftsman in Bluebeam in order to be modeled in Revit. Helped in constructing Revit model, including drawing details, annotating and modeling structural elements
- Analyzed existing masonry walls for compressive capacities in accordance with the masonry code
- Designed and detailed steel stairs in order to combine multiple floors in an office space

KPFF| New York, NY| September 2016 - December 2016

Structural Engineering Intern

- Continued work on Portland project as intern to design and draw details for concrete beams, columns and pilasters to
 incorporate requirements from ACI codes into structural drawings. Created a calculation package to be reviewed by the Portland
 building department.
- Observed existing wood joists for notches, holes and termite damage to conclude which joists needed to be removed and replaced in an existing brownstone
- Designed interior concrete spread foundations for gravity loads
- Did a load take down of a three story brownstone to design floor wood beams and wood bearing walls
- Went on site visits with client and architect to discuss passive house design as it aligns with structural design
- Set up structural drawings and drafted plans, elevations, and details in CAD for projects

KPFF| Portland, OR| June 2016 - August 2016

Structural Engineering Intern

- Created a script using Visual Basic in Excel in order to input point loads from a concrete software model into an ETABs model
- Designed retaining walls in a basement to withstand surcharge from lateral soil loads
- Reviewed steel and concrete shop drawings

SOFTWARE

ETABS, SAP2000, RISA, SP Column, Microsoft Excel, SAFE, AutoCad, Revit, Hilti Profis, Tedds, Mathcad, L-Pile, Microsoft Word, Microsoft Powerpoint, Microsoft Outlook, Bluebeam

CERTIFICATIONS

10-Hour Health and Safety in Construction, 10-Hour General Industry

INTERESTS

Mentor: ACE Mentor Program (2019-2020)