

# Angel Akin

## Senior Substation Civil Engineer

Royersford, PA - Email me on Indeed: [indeed.com/r/Angel-Akin/223b0232dc0f240e](https://indeed.com/r/Angel-Akin/223b0232dc0f240e)

### WORK EXPERIENCE

#### Senior Substation Civil Engineer

CG Power Solutions USA, INC - April 2013 to Present

1. Assist the lead electrical engineer for one or more concurrent high voltage substation and transmission line projects by providing civil and structural engineering design and construction support for assigned tasks.
2. Interface with clients and other outside entities on technical issues.
3. Provide technical support to other staff including designer, engineers and project managers.
4. Used building codes/Design manuals such as ASCE 7, IBC, ACI 318, and AISC 360.
5. Used PLS-CADD, PLS TOWER, Risa-3D, STAAD PRO, and MathCAD to analyze, design and develop standard structural calculations for electrical generating/transmission structures.

#### Lead Civil Substation Project Engineer

General Electric - August 2011 to April 2013

1. As a lead civil engineer I manage my assigned resources (engineers, physical designers and engineering tools) to get structural engineering tasks done.
2. I provide structural engineering design expertise on wind-powered collector substation, transmission line, and series capacitor bank steel structures.
3. I used building codes/Design manuals such as IBC, ASCE 7, ASCE 113, ACI 318, AISC 360, IEEE 605-08, IEEE 693-05 to analyze and design structures as applicable by states and local jurisdictions.
4. Used Risa-3D, STAAD PRO, Shaft-3D, and MathCAD to analyze, design and develop standard structural calculations.
5. I perform steel and foundation shop drawings and electrical equipment physical layout checks with respect to their supporting structure.

#### Civil Engineer

CG Power Solution, INC - November 2008 to July 2011

1. Provide civil and structural engineering calculation for wind-powered collector substation design and some transmission line structures.
2. Under the supervision of a professional engineer, I have managed a couple of projects from start to completion by participating on internal and client meetings to address scope of work, meet expected deadlines, and managing few engineers and designers to get the tasks (problem definition, analysis, design, drawing generation to be submitted to client, steel manufacturer and construction contractor on site.) done.
3. Review standard notes addressing site preparation, layout and grading.
4. Analyzed and designed moment resisting steel frame structures and reinforced concrete foundations (spread footing, drilled shaft) to support equipment within collector substation.
5. Design other structures such as reinforced concrete cantilever retaining walls, Gabion walls design, reinforced concrete design manholes
6. I checked structural steel structures and reinforced concrete foundations shop drawings.
7. Used Risa-3D, Shaft-3D, and MathCAD to analyze, design and develop standard structural calculations for most structures we design.
8. Used building codes/Design manuals such as ASCE 7, IBC, ACI 318, AISC 360, NBCC 05, Canadian STEEL AND Design manuals, etc

## **Junior Structural Engineer**

Delon Hampton & Associates - February 2008 to October 2008

1. Performed structural engineering inspection of existing WMATA subway tunnels and overpasses infrastructure for renovation estimates.
2. Produced structural engineering calculation on WMATA overpass track for bearing plate replacements using temporary jack and structural steel beams to support overpass superstructure.
3. Reviewed, modeled, analyzed and designed laterally braced steel-frame building systems from architect using design software such as RAM Structural Systems.
4. Used design software such as Risa-3D, ENERLC to model, analyze and design reinforced concrete footings, reinforced concrete cantilever retaining walls, gabion walls, and manhole using metal sheet piles.
5. Performed calculations and reviewed shop drawings from steel fabricator.
6. Used building codes/Design Manuals such as ASCE 7, IBC, ACI 318, Vulcraft.

## **EDUCATION**

### **Bachelor in Civil Engineering**

The Catholic University of America - Washington, DC

2007

## **SKILLS**

Microsoft office, Mathematica, MathCAD, Larsa, AutoCAD.

## **ADDITIONAL INFORMATION**

### **COURSES:**

Static, Dynamics, and Mechanics of Structures, Structural Analysis, Structural Steel Design, Reinforced Concrete Design, Soil Mechanics, Foundation Engineering, Matrix Analysis, Transportation Engineering, Design of Structural Systems (Statics and Dynamic Analysis).