Lonko Tuma

Electrical Project Engineer - WICK FISHER WHITE Engineers

Philadelphia, PA - Email me on Indeed: indeed.com/r/Lonko-Tuma/77809f5891ac012d

WORK EXPERIENCE

Electrical Project Engineer

WICK FISHER WHITE Engineers - Philadelphia, PA - April 2013 to Present

PROJECT MANAGER FOR VERIZON WIRELESS MSC SITE ELECTRICAL POWER AUDIT

Developed detailed project schedule of work, deliverables and deadlines in coordination with client requirements and availability and delegating tasks to team members. Scheduling and attending cross country client meetings.

Studied existing site engineering drawings including incoming utility power, substations, generators, switchgears, overcurrent protection devices and DC power systems and evaluated site conditions against industry standards.

Worked with local site contractors to perform detailed site visits and visually evaluate the accuracy of existing site electrical plans and equipment conditions.

Developed a more accurate Electrical Single Line diagram based on site audit.

Performed SKM short circuit and coordination studies on the site to troubleshoot all potential risks to site operations.

Develop detailed reports on the Electrical power operations of the sites with recommendations for site improvement.

PROJECT ENGINEER FOR AT&T CELL SITES AUDIT

Performed surveys of AT&T Cell sites to evaluated site conditions, network equipment performance and electrical power requirements in conjunction with subcontractors.

Performed site Electrical Power calculations and prepared site reports based on the survey.

VERIZON FIRE ALARM DESIGN

Developed an early warning fire alarm system using VESDA to protect Verizon switch equipment at central office locations.

Collaborated with mechanical and provided electrical design to upgrade the HVAC systems at various locations.

Electrical Design Engineer

BALLINGER A.E - Philadelphia, PA - September 2010 to April 2013

RUTGERS UNIVERSITY FOOD AND NUTRITION BUILDING (80,000 SQ. FT)

Performed initial Electrical Studies in developing a basis of design concept for the building.

Modeled an electrical system schematic design plan based on preliminary MEP studies and client needs, including the required substation and generator sizes.

Designed a medium voltage feed to the building to accommodate existing university electrical power grid supply.

Designed a backup power system using battery powered UPS, scheduling generator feeds to accommodate life safety loads and emergency loads on different systems and sizing each ATS and distribution panel to the required standards.

Worked with an out of office estimator to perform cost analysis and developing new design methods to reduce project cost.

Participated in project lighting design using AGI32, developed an energy efficient project lighting control system to utilize daylight savings and conducted a building energy analysis using ComCheck to ensure the project met federal regulatory standards.
Sized all the building distribution panels, transformers, receptacle and lighting panels with the required protection design and feeder sizes on single line diagrams in CAD format.
Implemented electrical system design in SKM to determine short circuit ratings for the entire project.
Participated in lightening and grounding protection plan design.
Designed a floor by floor electrical layout plan, including fire protection, telecommunications and security devices for the project using REVIT and meeting NEC requirements. Participated in project telecom design.
Prepared all supplemental project electrical design drawings including required drawing details and panel schedules.
Worked with the project MEP design team, architectural and interior design to provide required power accessories and voltage levels to the different building equipment.

GEORGE WASHINTON UNIVERSITY SCIENCE AND ENGINEERING HALL (400, 000 SQ. FT)
Designed and developed the electrical single line diagrams using a pre-established basis of design, determining the size of the substation, generator, paralleling gear and automatic transfer switches.
Participated in the addition of a cogeneration and steam generator systems to the design and the effects to the system stability.
Performed short circuit studies in SKM and selected appropriate circuit breakers to meet the design, conducted studies in SKM to ensure selected breakers where selectively coordinated on both the emergency and normal channels.
Participated in load shedding design and developed a sequencing chart to reflect the design.
Designed fire alarm systems for upgrade project, developing a fire matrix and sequencing chart, optimizing the use of detection and notification technologies to fully meet NFPA requirements.
Designed power systems layout in REVIT with a focus on; the fire alarm system, provision of power as required by the client's basis of design and applicable standards, cable routing with the use of conduits, junction boxes and pull boxes as per the NEC requirements.
Participated in the project lighting design with a focus on the control schemes and zoning of the fixtures.
Designed the automatic sunlight shades for the project including a central and local control scheme.
Coordinated with building users, the architectural department and manufacturers to determine the electrical requirements of different lab equipment and provide the plug types and cables sized and types required.
Participated in construction administration of the project including; preparing addendum documents, working with the construction manager to provide answers to FRIs and implementing document changes.

UNIVERSITY OF MARYLAND MEDICAL CENTER ELECTRICAL UPGRADE
Performed field surveys of existing medium voltage electrical equipment including conduit routes and bus duct systems.
Analyzed existing equipment by age and capacity to determine the viability of reuse.
Redesigned the medium voltage power supply for the hospital for implementation in several phases to reduce power outages to the hospital.

BOEING PLANT ELCTRICAL UPGRADE AND MEGADOOR DESIGN
Sized appropriate motors and power supply for megadoors at the Boeing Helicopter plant.
Designed a backup generator and related protection systems to support power for megadoors and other relating equipment in the plant.
Studied existing electrical systems drawings and developed a reconstruction scheme to replace out of date electrical equipment and related conduits.

UNIVERSITY OF PENNSYLVANIA WISTAR INSTITUTE BUILDING
READING HOSPITAL (500, 000 SQ. FT.)

Electrical Project Engineer

UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM PCAM BUILDING - Hancocks Bridge, NJ - October 2009 to January 2010

Aided in performing similar tasks in medium voltage design, power floor plan layouts, lighting design, telecom design, fire alarm analysis and general single line development.

PSEG NUCLEAR Hancocks Bridge, NJ
Electrical Project Engineer October 2009 to January 2010
Reviewed plant raceways and cable data with comparison to existing plant drawings in preparation for fire protection analysis.
Examined plant systems and ran simulations for compliance with established fire protection regulations.

Electrical Engineering Intern

- March 2008 to September 2008

Develop and analyze load studies of all plant systems in the PSS/E and E-TAP software. Use load studies to redesign station power consumption and avoid power shortages to vital equipment.
Identify power shortages and over current issues due to unregistered loads.
Troubleshoot electrical equipment including interconnecting cable lines, transformers, circuit breakers and motors at various voltages levels from 420V to over 500KV, with primary focus on identifying and managing common patterns in equipment failure.
Redesign plant systems in cases of equipment failure and implement changes in existing plant drawings using AutoCAD.
Member of task force to analyze and replace aging equipment.
Participate in plant ring-bus re-design and implementation to eliminate 50% of station power outages.

Network Support Associate

Douala1.com - June 2003 to January 2005

Design and implement local area networks for smaller clients.
Monitor networks and assist clients in troubleshooting network problems.
Assist clients in developing appropriate web usage packages for their business needs.

EDUCATION

Bachelor of Science in Electrical Engineering/Power Systems

Drexel University - Philadelphia, PA
August 2010

Master of Science in Electrical Engineering/Power Systems

Drexel University - Philadelphia, PA
June 2009

ADDITIONAL INFORMATION

SOFTWARE SKILLS

SKM Power Analysis, E-TAP, PSS/E, Autocad, Revit, Matlab, Microsoft Office, C#, Java, AIG32, Visual, ComCheck

SKILLS

Competent in project management and execution on both technical and administrative fronts. Excellent verbal and written communication skills, with emphasis on technical writing.
Significant experience working successfully with different teams as a team member, leader and motivator.