

RBC SCC

New Data Center

Stratford, ON

Owner: RBC

Value: \$39,000,000

Date: December 2011

Trades: Electrical
Mechanical



Project Description and Scope:

This project involved the construction of a new 396,000 square foot computer centre in Stratford Ontario, with (6) 2.5MW 13.8KV Generators, (1) MV UPS Module, (3) LV UPS Modules, a total Raised Floor (“White Space”) of 95,000 S.F., N+2 redundancy. This project utilized the BIM (Building Information Model) 3D modeling system for the entire project and required all disciplines to design their installation and ensure co-ordination between all trades. Electrical system was designed to meet the requirements of seismic loads and post disaster. This project received LEED® Gold certification.

The ‘Underground’ Phase consisted of an elaborate concrete encased duct bank system for all main feeds between electrical, mechanical and UPS Substations, these systems were all 13.8KV. Extensive Heat Calculation Studies were performed in the design of these concrete encased duct banks.

The ‘Above Bolts’ Phase had a project duration of 12 months with well over 170,000 man hours. This phase consisted of the installation of (2)-45ft. long 13.8KV Utility Switchgear with 15 cubicles, (2)-45 ft. long 13.8KV Generating Paralleling Switchgears, (2) Generator Control Cabinets, (3)-40 ft. long 13.8KV UPS Substations, (2)-46 ft. long Reserve UPS Substations, (10)-30 ft. long UPS, Distribution Output Switchboards, (4)-56 ft. long 13.8KV Mechanical Substations. Both medium voltage and low voltage battery strings were installed consisting of 2,880 BAE Flooded Battery System, 192 ALCAD XHP220 NiCad Battery System, 4,096 Cell Deka Unigy II Battery System. There was a very extensive Commissioning phase that consisted of multiple crews working in co-ordination with an Independent Testing Organization to ensure a safe and operational system.

The project had a fast tracked and intensive schedule model that used LEAN scheduling to maximize work flow and reduce lag time.

The State Group provides ongoing support at this location to this day under an MSA to our client.