



Mount Sinai Medical Center Klingenstein Pavilion

PROJECT INFORMATION

CONCORD DIVISION

Power & Infrastructure

PROJECT LOCATION

New York, NY

MARKET

Health Care/Hospital

SERVICES

Feasibility Study

Design Engineering

ABOUT THE CLIENT

Mount Sinai Hospital, founded in 1852, is one of the oldest and largest teaching hospitals in the United States. It is located in East Harlem in the New York city borough of Manhattan.



PROJECT SUMMARY

Concord Engineering was tasked in 2018 by Mount Sinai Hospital to prepare a feasibility study to replace a total of eight (8) antiquated electrical switchgear/switchboards throughout the Mount Sinai Hospital buildings. The core constraints for the electrical equipment replacements included that new replacement electrical equipment fit within the existing electrical equipment footprint and that equipment switchovers be performed with minimal electrical outages. Concord developed a replacement scheme by preparing a detailed load analysis of the existing electrical equipment. With the load analysis information, Concord determined where temporary electrical equipment could be installed and connected to allow existing equipment removal and replacement with new. The feasibility study included detailed scope of work electrical one-line diagrams, floor plan layouts, phasing/sequence plans, and associated electrical details. An Opinion of Probable Cost Estimate was prepared for the overall project. Feasibility Study completed: November, 2019.

Mount Sinai has recently released Concord Engineering to perform design engineering services and to prepare bid ready construction documents for the replacement of the Mount Sinai Klingenstein Pavilion (KP) two main service switchboards and two additional downstream KP switchboards. The design documents will include detailed and phased one line diagrams, phased floor plans, and existing electrical equipment locations where existing equipment will be directly connected to the new switchboard equipment. The KP service switchgear replacement will be in conjunction and in complete coordination with a recently planned electric utility service upgrade by Con Edison. Due to the age of the existing installation as well as many project constraints (cable types, equipment types/locations, minimal space for new conduit systems, new equipment is larger than existing), the project design will include a phased approach to ensure that the hospital will endure minimal electrical outages for the required electrical switchovers



Mount Sinai Medical Center Emergency Power System

PROJECT INFORMATION

CONCORD DIVISION

Commissioning

PROJECT LOCATION

New York, NY

MARKET

Health Care/Hospital

SERVICES

Commissioning



ABOUT THE CLIENT

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PROJECT SUMMARY

Concord Engineering Group (CEG) was hired as the third-party commissioning agent by Mt. Sinai for the Emergency Power Upgrade to the main campus. This project is the first phase of a multi-phase project to increase the backup power necessary for critical system operation during power outages as well as increasing the amount of emergency power for cooling the hospital during long term outages. The project includes four (4) 1500kW Diesel Generators mounted within pre-packaged enclosures on the roof of the hospital. In conjunction, the project included significant electrical infrastructure upgrades to facilitate the project including the addition of a new Automatic Transfer Switch (ATS) for the Chiller System. This new ATS can be used in both Emergency Power Conditions and Demand Management Operation to participate in the Demand Response program with the utility. Concord Engineering was contracted to perform commissioning services from late in the design phase through the functional testing process. The project took 28 months to execute due to COVID-19 and the long equipment lead times.