

St. Clair Hospital New Chiller and Emergency Generator Plant

DESIGN / CONSTRUCTION TIMELINE:

December 2019 – May 2020

CLIENT:

IKM Architects

REFERENCE CONTACT:

Tami Greene

Phone:

412-281-1337

Email:

tgreene@ikminc.com



This project consisted of consolidating all of the chiller and emergency generators, spread throughout the hospital campus into one central plant for chilled water and emergency power. The new plant will also serve a future patient tower and a new 290,000 sq. ft. Ambulatory Care Center (ACC).

CEA provided the MEP design services for the ACC. The utility building included 6,500 tons of chilled water capacity that will be fed from 4 1,500-ton chillers and 1 500-ton winter chiller. In addition, a free cooling heat exchanger was installed with a capacity of 250 tons. New pumping systems were installed and new chilled water distribution piping were run to refeed the existing chilled water distribution systems associated with the removed chillers, as well as new supply mains to the ACC.

Electrically three locations of emergency generators were consolidated to three (3) two (2) MW generators with one of the generators being redundant. New paralleling gear was installed along with new distribution systems, to reconnect the existing emergency systems to the new plant. These generators will also serve the new ACC and the future patient tower as well as provide additional emergency power capabilities within the existing hospital. The existing utility service was also upgraded which involved increasing of the main hospital transformers from 3.75 MVW to 5 MVW and relocation of the existing overhead utility feeders to miss the new utility building. These feeders were moved underground from new utility poles to the existing transformer building.

