

Center for Transitional Research and Education (CTRE)

Project Highlights and Results

- Enhanced Commissioning secured points which contributed to a LEED Gold designation
- Achieved extremely high level of systems redundancy and continuous mechanical system service to ensure uninterrupted scientific research through functional testing and control enhancements during commissioning
- Black out testing verified emergency power functionality and emergency sequences for MEP systems throughout building
- 2+ years of coordinated commissioning activities delivered successful and efficient building / campus / systems operation

Project Background

Owner:	Loyola University Chicago (Health Science Campus)
Location:	Maywood, IL
Team/Team Lead:	Steve Maze, Adam Sanders, Mark Rockwood
Elara Role:	LEED Enhanced Commissioning
Type:	New Construction
Construction Cost:	\$137 million

Project Overview

Building Type:	Laboratory and Research; including Offices, Auditorium, Classrooms
Building Attributes:	5 Stories with Lower Level, 227,000 SF
Initial Construction:	2016
MEPPIT Systems:	DOAS, Chilled Beam, Radiant ceilings, Heat Recovery, Natural Ventilation, Lighting Control, DDC with variable control

Innovation

- To serve various types of space uses, the building included multiple complex mechanical systems; including emergency CHW fed from the campus and over 650 air terminal units.
- During commissioning, Elara identified ways to improve the operation of the designed systems and to enhance reliability – considered to be of critical importance for lab space performance. This work included sequence modifications and equipment / system optimization (including energy improvements) for specific items.
- Building functionality was tested locally as well as from a campus integration stand point as the building systems were integrated with the campus chilled water, electrical and emergency systems.
- Complex emergency sequencing of the mechanical systems was implemented to ensure critical spaces were prioritized during equipment failures. These emergency sequences were extensively tested by Elara to achieve load shedding, optimal timing of the sequencing to minimize disruption to the system and to maximize reliability of systems if equipment fails or recovers from failure.

