

CUSD300 Hampshire Elementary School

Project Highlights and Results

- New construction of elementary school to meet demands of district enrollment growth.
- Elara providing Schematic Design, Design Development, Permit/Bid/Construction Document, Bidding, Construction Support, and Functional Testing services.
- Energy modeling and building optimization study to support the early planning phase and identify the most effective building design.

Project Background

Owner:	Community Unit School District 300
Location:	Hampshire, IL
Team/Team Lead:	Brian Malone, Sean Hidaka, Jesse Langille, Micheal Doran
Elara Role:	MEFPF Engineer
Type:	New Construction
Construction Cost:	\$26,000,000

Project Overview

Building Type:	K-12 Education
Building Attributes:	2-Stories with Lobby, Classroom, Kitchen, Offices, Gymnasium meeting ICC 500 Storm Shelter Standards, Multi-Purpose Room, Media Center, Specialty Rooms with Sensory Adaption; 86,260 SF
Initial Construction:	2021
MEFPFIT Systems:	DOAS with energy recovery, dedicated AHUs for large spaces, gym destratification fans, 4-pipe fan coils, condensing boilers, air cooled chillers, condensing domestic water heaters, water softer, LED lighting, emergency/standby generator

Innovation

- This project updates the school district's model school MEP systems to improve energy efficiency and implements airborne infectious contaminant control strategies.
- The gymnasium is constructed as the first storm shelter for the school district.
- Design elements include: Electrical (normal/emergency power distribution, interior/exterior lighting, fire alarm system), plumbing (including fire suppression), and mechanical/HVAC systems (ventilation, boiler/chiller plants, space conditioning, ductwork, piping, and controls).
- Ventilation system comprised of 7 AHUs including 3 DOAS units and separate AHUs for specialty spaces, each with an energy wheel for heat recovery providing demand controlled ventilation air or space conditioning.
- Hot water boiler plant includes two (2) 3,000 MMBTU fire tube condensing boilers located in the building's 2nd floor sized to support a future addition.
- Chiller plant includes two (2) 90-ton air cooled chillers located on the roof above the building's 2nd floor sized to support a future addition.

