

Project Details

Client: **Lima Library Association**

Design Professional: **Smith-Boughan**

Services Provided: **Engineering, Construction of Building
Automation System, Boiler Plant & Chiller Plant**

Market: **Institutional**

Location: **650 W. Market Street, Lima, Ohio 45801**

Project Summary

It had been nearly 53 years since the original HVAC pneumatic control system installation and The Lima Public Library was faced with escalating costs and unstable environmental conditions that were affecting occupant comfort as well as the preservation of collection/reading materials. Through funding of a House Bill 295 project, the Lima Library Association was presented with the opportunity to address those issues by upgrading the HVAC control system.

Failing components, continual out-of-calibration sensors and controllers, and inefficient operation of the pneumatic control system were all contributing to the unstable environmental conditions within the Library affecting occupant comfort and collection/reading materials.

Solution

- Smith-Boughan put their 30 + years of controls expertise to work and replaced the antiquated pneumatic control system with a state-of-the-art Trend Building Automation System. All of the pneumatic components were removed including the air compressor. They were replaced with TCP/IP & BACnet protocol controllers, electronic sensors, control valves, actuators and a fully graphical operator user interface for the client.
- The system upgrade regained control of the environmental conditions within the space, eliminating the costly repairs experienced by the old system, and began reducing energy consumption through proper control of the HVAC equipment. With the use of a graphical user interface the client also has the ability to oversee and manage his system operations in addition to being notified if problems should arise....capabilities they did not have previously.

Benefits

- Improved environmental comfort for the occupants of the building.
- Extended life of collection and reading materials within the library.
- Reduction in utility consumption.
- Minimizing energy required to heat or cool the air.
- Reduced maintenance of the building automation system.
- Quicker response - maintenance personnel are notified via mobile devices upon a critical HVAC related alarm.

[The Lima Library Association is an independent, non-profit organization dedicated to providing support for the Lima Public Library through mobilization of resources and advocacy]

Before



After

