

ROBERT LLOYD SHEET METAL INC.

CUSTOMER PROFILE

PORTLAND ART MUSEUM

The Portland Art Museum is the largest and oldest museum in the Pacific Northwest. It holds anywhere from 500 million to 1 billion dollars of art work at any time. The museum is comprised of two buildings; the recently renovated Belluschi building and the newly renovated Mark building. The Belluschi building underwent a 60,000 square foot renovation taking over space vacated by the Northwest College of Art. The Mark building was renovated from the vacated temple next to the Belluschi building. This acquisition and renovation added 141,000 square feet to the museum. Although the renovation of this complex took ten years to complete, Robert Lloyd Sheet Metal was able to complete the sheet metal and HVAC control work for the Mark building in a period of six months. The project itself complicated; the control system would have to be able to maintain a three percent humidity variance and a two degree temperature variance in large rooms that can go from empty to full in a matter of minutes, as well as manage communications between non proprietary communications protocols.

In order to cope with the dynamics of the internal climate control, Robert Lloyd Sheet Metal installed return air Co2 sensors, air flow meters, outside air economizers and discharge reset control on all air handlers, allowing the system to control more efficiently and accurately. The overall system consisted of 5 air handlers, area terminal units with reheat capabilities, a chiller and a boiler. The chiller supplied cold water to the air handlers for cooling and the boiler supplies hot water to the air handlers for heating and the terminal units for supply air reheat. Additionally, the boiler communicated on the ModBus protocol and the rest of the system communicated on the Lon protocol. To remedy the communication issues a field server was installed to communicate between the boiler and the rest of the system.

Robert Lloyd Sheet Metal is dedicated to providing quality energy efficient HVAC systems and controls for its projects. Whenever possible, we install Co2 sensors, discharge air sensors, economizers, variable fan drives and implement advanced control logic to save owners money in energy and maintenance costs. RLSM goes beyond the status quo providing outstanding customer service and money saving practices through the following features implemented in all of our projects.

- E-mail alarming to notify you of equipment failures
- Building and zone scheduling which allows the building to run in occupied and unoccupied modes
- Remote access for advanced troubleshooting

To find out how Robert Lloyd Sheet Metal can help your project call us at (503)-838-3863 or send us an email at webinquiry@rlsm.net



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