



COMMONWEALTH CHARTER ACADEMY PITTSBURGH

High-Quality Learning Experiences Through AV Solutions

CASE STUDY

CHALLENGE

When Commonwealth Charter Academy (CCA) secured a 62,000-square-foot former department store building in Pittsburgh, the top accredited public cyber charter school turned to Applied Video Technology (AVT) for building-wide audiovisual systems to provide personal educational programs and services to K-12 students.

SOLUTION

The solutions installed included digital signage, video walls, sound making and control systems to provide high quality learning experiences for students attending class virtually.

The building houses administrative offices, conference rooms, huddle rooms, a multi-purpose room, seminar areas, production labs, live session rooms and common areas throughout the building, the latter of which is the site of a large LED video wall that the company says is the cornerstone of the project.

Each space in the building was designed to have its own unique functionality depending on the specific use for room type, all while considering ease of use for the teachers. With each room designed with the end user in mind the goal was to be able to transition from space to space with the same type of understanding of how to use each system.

All rooms have an Extron control system to control monitors, digital signage players and audio systems. TechWork rooms were designed to be divisible, allowing for increased functionality depending on the type of event being held. Conference rooms were equipped with Sharp monitors, USB cameras and table top Crestron Mercury systems for video conferencing purposes. Live session rooms, seminar rooms and meeting rooms included Sharp monitors, Logitech USB cameras and Crestron Mercury systems to allow for teaching flexibility, and all are controlled by wall mounted Extron push-button controllers. Each room also has an Extron room scheduling panel outside of the room to display schedule information integrated with CCA's existing scheduling software.



Project highlights include a 4K 2x2 video wall in the reception area to greet guests with digital signage video and audio through JBL column array speakers. A large multipurpose space includes eight Sharp monitors and two Epson projectors with Da-Lite screens projectors and audio and video conferencing support with JBL speakers and Vaddio PTZ cameras. In the main commons area of the building, AVT installed a 141" x 80" Nanolumens LED wall with an Extron Matrix control processor and TVone Video wall processor. The video wall is configured to received inputs via

an HDMI wall plate, BrightSign digital signage player, Blu-Ray player or cable set top box giving the school unlimited options for video wall content in their commons area space.

After the initial design stage with CCA and the architect, AVT worked very closely with the General Contractor and other trades for the entire project build out to coordinate the AV installation phase of this large construction project. AVT interfaced with the electrical contractor for conduit runs and wall box installation, low voltage contractors for network drop requirements and the furniture manufacturers for table top box installation.

The building was a retired Macy's department store and had many structural support columns, presenting challenges to AVT, including maintaining clear sight lines and increasing the amount of displays to account for all viewing areas.

In areas where open ceilings were designed, AVT had to take great care in wire management to maintain a nice aesthetic. AVT solved the problem by using low profile enclosed wire trough and worked closely with the electrical contractor to install the conduit in the precisely correct device locations.

As a top accredited public cyber charter school that provides personalized educational programs and services to students in grades K through 12, having the right technology in place to make teacher's jobs easier and positively impact the student's ability to learn is critical. CCA teachers direct their classrooms and run their lessons from CCA's Family Service Centers in regions all across Pennsylvania, and working with AVT for these solutions has allowed teachers and staff to work with the latest technology.

Having this state-of-the-art technology designed and installed by AVT sets CCA apart and has given CCA the flexibility to have teachers to operate virtual classrooms as well as meet with students and their families at the Family Service centers like the one in Pittsburgh whenever the need arises.



KEY PRODUCTS

- Sharp Monitors
- Extron MediaLink-Plus Controller
- Extron Room Scheduling Panels
- Crestron Mercury Video Conference System with Basic Camera
- BrightSign Digital Signage Player
- Shure Speakers & Microphones
- JBL Ceiling Audio

