

Proterial Cable America, Inc.

Upgrade Schools and Universities with PCA Ethernet & Fiber Optic Cable

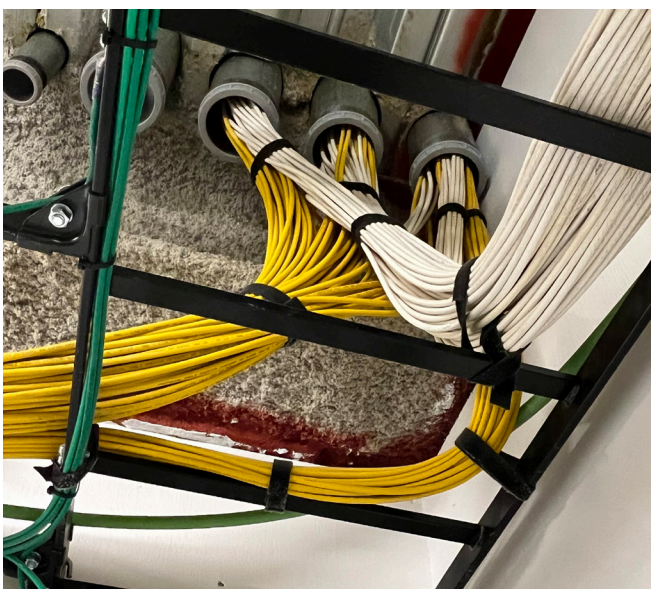
Proterial Cable America's Role in Modernizing Higher Education



PROUDLY MADE IN USA



South Dorm - UConn Campus
Data Cable Installation by KGS Associates



BUILD A ROBUST NETWORK WITH PROTERIAL CABLE AMERICA

As an IT professional, understanding the infrastructure behind your facility is crucial. Dependable cabling systems are the foundation of university networks, supporting everything from connectivity to advanced technologies. Proterial Cable America, Inc. (PCA) proudly manufactures high-performance Ethernet ([Category 6 and 6A](#)) and [Fiber Optic Cable](#) from our 300,000sq ft Manchester, NH facility. Backed by over 100+ years of combined engineering expertise in wire and cable, we deliver reliable, trusted performance for every network solution. Selecting PCA for your project bid empowers certified installers and IT professionals to strengthen networks within any educational environment. PCA provides easy-to-pull reels and payout boxes, backed by a 40 year legacy of superior quality and supportive field support from our engineering and customer support teams.

KEY ETHERNET CABLE APPLICATIONS

Classroom Connectivity Interactive Learning: Ensure seamless connections for smart boards and projectors, allowing teachers to utilize interactive teaching methods. Make sure your network can support multiple devices at once to avoid bottlenecks.

Networked Computer Labs Reliable Performance: Wired connections provide stable and fast internet access essential for software applications used in labs. Monitor bandwidth usage to maintain optimal performance, especially during peak hours.

Security Systems Integrated Solutions: Ethernet cables are essential for deploying IP-based security cameras and access control systems. Understanding the layout of these systems can help you design a more secure campus.

Administration and Communication Efficient Operations: Faculty and administrative staff depend on reliable connections for email, VoIP, and video conferencing. IT must ensure that the network infrastructure supports these important services without downtime.

Innovative Uses Power over Ethernet (PoE): This technology allows Ethernet cables to deliver power to devices such as VoIP phones and access points, reducing the need for additional power sources and simplifying installation.

Expanded Wi-Fi Coverage: As schools and universities expand Wi-Fi to account for additional devices, Ethernet cables serve as backhaul connections for access points. Understanding how to manage and optimize these connections is essential for maintaining dependable network performance.



7 SURPRISING APPLICATIONS OF ETHERNET CABLE USES IN YOUR NETWORK

[PCA's Cat6 & 6A](#) cables offer excellent resistance to interference ensuring optimal performance and minimal data loss. Unlike some other Ethernet cables, PCA's Cat6 & 6A cables can maintain throughput up to 328 feet. Below are 7 applications of Ethernet cable you may not be aware of.

- 1. Detect Bullying and Stop It:** Potential bullying can be identified and prevented through ethernet-enabled systems using AI-driven analytics.
- 2. Recognize Vaping when it's Happening:** Vaping can be detected and alerts sent to administrators to combat this issue, thanks to advanced systems connected by ethernet.
- 3. Promote a Healthy Space:** Power a healthy learning environment through the use of air quality monitors or temperature and humidity sensors connected by ethernet cables.
- 4. Make Your Message Clear:** Schools can use ethernet connections to manage digital signage for announcements, events, and emergency notifications.
- 5. Be Energy Efficient with Smart Lighting:** Increase energy efficiency and adapt classroom and hallway occupancy levels by using ethernet-powered smart lighting.
- 6. Learn More About Attendance:** Track attendance and collect data by using ethernet connections to run RFID or facial recognition software.
- 7. Help People Find Their Way:** Install kiosks with ethernet to provide information, maps or directional guidance to students or visitors on campus.

WHY CATEGORY CABLE?

When you're comparing ethernet to fiber, PCA Cat 6 and Cat 6A are high quality products at a lower investment, and ethernet is less expensive to install than fiber. You'll also find that ethernet tends to be easier to install than fiber as well. Ethernet infrastructure can often use existing pathways which reduces both labor and disruption.

Ethernet is ideal for shorter indoor connections, which means it makes a lot of sense for typical uses in schools—connecting devices within the same building, such as computers, printers and other classroom-based technology.

WHEN SHOULD YOU CHOOSE ETHERNET?

Connecting Classroom Devices: Ethernet cables link student laptops, tablets, and classroom projectors to the school network. They can also connect peripheral items like printers, scanners and interactive whiteboards.

Setting Up Local Area Networks (LANs): Ethernet facilitates communication between network switches within buildings, ensuring reliable data transfer for academic and administrative purposes.

Managing Security Systems: IP-based security cameras, access control systems, and alarm systems can all be supported by ethernet.

WHY FIBER OPTIC?

Fiber optic cable is more ideal for data-intensive applications, offering higher speeds and better bandwidth than category cable. They're immune to electromagnetic interference and provide stable and secure connections, making them perfect for large data transfers and sensitive transmissions.

[PCA's multimode fiber](#) can handle 10 Gbit Ethernet up to 550 meters, and our [singlemode fiber](#) reaches up to 10,000 meters.

Do you have to connect buildings across a large campus? This is a time to use fiber. Fiber optic cables can transmit data over longer distances without the signal being affected.

5 FIBER OPTIC CABLE USE-CASES

There are many specific instances when fiber optic cables should be used in your school or university project, but here are five common examples.

- 1. Connect Data Centers:** High-speed fiber optic connections facilitate data transfer between campus data centers, improving access to shared resources and services.
- 2. Connect a Crowd:** Large-scale video conferencing such as virtual classes or events can be supported by fiber. They are also essential for connecting buildings on campus so high-speed internet access across departments can be ensured.
- 3. Maintain Quality Off Campus:** Fiber optics can connect to internet service providers, so that high bandwidth is accessible for online courses and digital learners.
- 4. Enhance Research Capabilities:** Use fiber optics for real-time data sharing and collaboration on large datasets.
- 5. Promote a Smart Campus:** Fiber optics power various IoT devices, including smart lighting, environmental sensors, and security cameras, contributing to campus sustainability initiatives.

Contact Sales

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[PCA Ethernet / Category Cable Offerings](#)

[PCA Fiber Optic Cable Offerings](#)

[Fiber Selection Guide](#)