

COMMERCIAL ROOFTOP HVAC ELECTRICAL INSTALLATION

**Electrical Infrastructure for Large Rooftop
Air Handling Units**



Project Highlights:

- Multiple rooftop air handling unit installations
- Commercial three-phase electrical distribution
- Weather-resistant rooftop electrical systems
- Clean conduit installation
- Code-compliant disconnect installation
- Coordination with mechanical contractors

Scope:

- Power distribution for rooftop air handling units
- Three-phase electrical installations
- Equipment disconnect installation
- EMT and rigid conduit installation
- Control wiring coordination with HVAC contractor
- Branch circuit installation
- Equipment grounding and bonding
- Final testing and startup support

Project Overview

BD Electrical completed the electrical installation for multiple commercial rooftop air handling units (AHUs) serving a research and laboratory facility. The project included power distribution, disconnect installation, conduit systems, equipment connections, and final commissioning of large custom HVAC equipment designed to provide precise environmental control.

Research laboratories rely on tightly controlled temperature, humidity, and ventilation systems to support sensitive equipment and maintain safe operating conditions. Our team delivered a clean, code-compliant electrical installation that supports the facility's critical mechanical systems.

The Challenge

Large commercial air handling units require reliable electrical infrastructure capable of supporting continuous operation in an exposed rooftop environment.

The installation required careful coordination with mechanical contractors to ensure electrical systems aligned with equipment locations, condensate piping, structural supports, and rooftop access while maintaining a clean, serviceable installation.

Because rooftop equipment is exposed to weather year-round, every component had to be installed with long-term durability and maintenance accessibility in mind.



The Result

BD Electrical installed complete electrical systems for multiple rooftop HVAC units, including power feeds, disconnect switches, conduit routing, and equipment connections.

Special attention was given to:

- Clean conduit routing that follows equipment layout
- Accessible disconnect locations for maintenance personnel
- Weather-resistant installation methods
- Coordination with mechanical piping and ductwork
- Organized electrical infrastructure for future serviceability

The completed installation provides dependable electrical service for critical HVAC equipment while maintaining the clean workmanship expected on institutional and commercial facilities.

Why Electrical Quality Matters for Commercial HVAC

Modern commercial HVAC systems are among the largest electrical loads within many buildings. Proper installation is essential to ensure reliable operation, simplify maintenance, and minimize downtime.

Professional electrical installation provides:

- Reliable equipment operation
- Safe servicing through properly located disconnects
- Code-compliant grounding and bonding
- Organized conduit systems
- Long-term durability in outdoor environments
- Easier troubleshooting and maintenance



Why Choose BD Electrical

BD Electrical delivers commercial electrical installations throughout Massachusetts for research facilities, manufacturing plants, healthcare buildings, office complexes, educational campuses, and industrial facilities.

Our commercial electrical expertise includes:

- Commercial HVAC electrical installations
- Rooftop equipment power distribution
- Three-phase electrical systems
- Industrial electrical construction
- Service upgrades
- Power distribution
- Preventative maintenance
- Commercial solar and battery energy storage systems (BESS)

Whether supporting a rooftop mechanical upgrade or a complete building electrical renovation, we deliver installations that are built for reliability, maintainability, and long-term performance.