

Series 2000 and Series 3000 Three-Phase Meters

Project Case Study Chapel Bridge Park Office Complex Newton, MA



Leviton submeters take the load off Chapel Bridge Park Associates by providing a revenue-grade, real-time reporting and energy management solution that redirects accountability for electrical usage directly to tenants.

Single Utility Meter Causes Multiple Challenges for Office Park Complex

Located just outside of Boston, the Chapel Bridge Park Office Complex occupies over 250,000 square feet of suburban real estate. The sprawling office park complex consists of a mix of old and newer buildings that attract tenants with offices that boast tall ceilings, abundant natural light, ample parking and close proximity to public transportation and the Mass Pike.

Each month, property owner Chapel Bridge Park Associates (CBPA) undertook a labor-intensive process to allot a portion of its electric bill to tenants based on an allocation ratio. Since tenants were unaware of how much electricity they were using and paid for more or less than what they consumed, there was little incentive for them to conserve energy.

Seeking to redirect accountability for electrical usage to its tenants and streamline its accounting operations, CBPA placed a call to its long-time electrical engineering consultant, Vincent A. DiLorio, Inc. (Norwood, MA) to explore options for creating an equitable, energy-efficient arrangement. "Knowing Leviton as a leader in sustainable solutions, I met with their sales rep and spoke with subject



matter experts at the Company about their sub-metering product line. Their products and support were a good fit for us. We were able to implement a cost-effective way for CBPA to recover its utility costs, save energy and reduce its carbon footprint," said Vincent DiLorio.

"The system not only saves money, but improves the marketability of our property."

*-John Savino
Property Manager, CBPA*

Wireless System Saves Installation Time and Reduces Labor Costs

Aslan Electric (Franklin, MA) was retained to install the sub-meters across the Complex's four buildings. "We selected Leviton's wireless system and the decision was a smart choice. The products gave us a way around having to drill through the buildings' brick exterior and run the cable lines from the HD Pulse Module to the Energy Monitoring Hub," said Aslan Electric's Rob LaRosa. "At first I was concerned about the signal intensity given the wide expanse of the complex,

but we tested the signal strength and it provided consistent, reliable performance across the network's entire span. The wireless products cut down on time and material requirements and they performed flawlessly," he added.

The Installation

Thirty-eight Leviton Series 2000 Meters were installed for the Complex's 4-wire service areas and three Series 3000 Meters were installed for larger amperage spaces fed with 3-wire service.

Eight Leviton ModHopper Wireless Modbus/Pulse Transceivers, seven High-Density Pulse Modules and an Energy Monitoring Hub (EMH) completed the installation. The ModHoppers send signals over a wireless mesh network that makes connecting the meters to the EMH simple and cost effective. Using only a web browser, a third-party billing company remotely collects data directly from the EMH that can be download into Excel/.CSV file formats without the use of special software. This in turn, lets it create individual invoices for each tenant based on their actual electrical usage. CBPA has the option in the future to add Leviton's Energy Manager to its system to measure its real-time efficiency gains.



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The Bottom Line

The installation of the wireless meters enabled CBPA to achieve better energy management and cost savings, as well as use a third-party biller to reduce its administrative overhead.

"We've been able to track all tenant related energy usage and common-area and after-hours usage to recover these hard-to-allocate costs as well," said John Savino, property manager for CBPA. "The system not only saves money, but improves the marketability of our property. Since participating tenants are responsible for their own electric bills, we can offer more competitive rents, attract more prospective tenants and run a more sustainable business," he added.

Series 2000 Three Phase Meter Kits

INDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/208V 3PH 4W WYE kWh Meter	100	3 Split CTs	2K208-01W
	200	3 Split CTs	2K208-02W
	400	3 Split CTs	2K208-04W
	800	3 Split CTs	2K208-08W
	1200	3 Split CTs	2K208-12W
	100	3 SOLID CTs	2K208-15W
	200	3 SOLID CTs	2K208-25W
277/480V 3PH 4W WYE kWh Meter	100	3 Split CTs	2K480-01W
	200	3 Split CTs	2K480-02W
	400	3 Split CTs	2K480-04W
	800	3 Split CTs	2K480-08W
	1200	3 Split CTs	2K480-12W
120/208V 3PH 4W WYE Demand Meter	100	3 Split CTs	2K208-01D
	200	3 Split CTs	2K208-02D
	400	3 Split CTs	2K208-04D
	800	3 Split CTs	2K208-08D
	1200	3 Split CTs	2K208-12D
277/480V 3PH 4W WYE Demand Meter	100	3 Split CTs	2K480-01D
	200	3 Split CTs	2K480-02D
	400	3 Split CTs	2K480-04D
	800	3 Split CTs	2K480-08D
	1200	3 Split CTs	2K480-12D

OUTDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/208V 3PH 4W WYE kWh Meter	100	3 Split CTs	20208-01W
	200	3 Split CTs	20208-02W
	400	3 Split CTs	20208-04W
	800	3 Split CTs	20208-08W
	1200	3 Split CTs	20208-12W
277/480V 3PH 4W WYE kWh Meter	100	3 Split CTs	20480-01W
	200	3 Split CTs	20480-02W
	400	3 Split CTs	20480-04W
	800	3 Split CTs	20480-08W
	1200	3 Split CTs	20480-12W

System Benefits

- Redirects responsibility for electrical usage from property owners to tenants
- Encourages energy conservation among tenants
- Offers convenient way to monitor electrical usage for energy savings
- Provides web-based access to real-time usage data and reports
- Enables third-party billing
- Wireless installation saves time and labor costs

Series 3000 Advanced KWH/Demand Meter Kits

INDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/208V 3PH 4W WYE Demand Meter	100	3 Split CTs	3K208-01D
	200	3 Split CTs	3K208-02D
	400	3 Split CTs	3K208-04D
	800	3 Split CTs	3K208-08D
	1600	3 Split CTs	3K208-16D
	3000	3 Split CTs	3K208-30D
	5000	3 Split CTs	3K208-50D
277/480V 3PH 4W WYE Demand Meter	100	3 SOLID CTs	3K208-15D
	200	3 SOLID CTs	3K208-25D
	100	3 Split CTs	3K480-01D
	200	3 Split CTs	3K480-02D
	400	3 Split CTs	3K480-04D
	800	3 Split CTs	3K480-08D
	1600	3 Split CTs	3K480-16D
347/600V 3PH 4W WYE Demand Meter	3000	3 Split CTs	3K480-30D
	5000	3 Split CTs	3K480-50D
	100	3 SOLID CTs	3K480-15D
	200	3 SOLID CTs	3K480-25D
	100	3 Split CTs	3K600-01D
	200	3 Split CTs	3K600-02D
	400	3 Split CTs	3K600-04D
208 or 240V 3PH 3W DELTA Demand Meter	800	3 Split CTs	3K600-08D
	1600	3 Split CTs	3K600-16D
	3000	3 Split CTs	3K600-30D
	5000	3 Split CTs	3K600-50D
	100	3 Split CTs	3K24D-01D
	200	3 Split CTs	3K24D-02D
	400	3 Split CTs	3K24D-04D
480V 3PH 3W DELTA Demand Meter	800	3 Split CTs	3K24D-08D
	1600	3 Split CTs	3K24D-16D
	3000	3 Split CTs	3K24D-30D
	5000	3 Split CTs	3K24D-50D
	100	3 Split CTs	3K48D-01D
	200	3 Split CTs	3K48D-02D
	400	3 Split CTs	3K48D-04D
208 or 240V 3PH 4W DELTA Demand Meter	800	3 Split CTs	3K48D-08D
	1600	3 Split CTs	3K48D-16D
	3000	3 Split CTs	3K48D-30D
	5000	3 Split CTs	3K48D-50D

Project Implementation Team

- Chapel Bridge Park Associates (Newton, MA) Property Owner
- Vincent A. DiLorio, Inc. (Norwood, MA) Electrical Engineering Consultant
- Needham Electric Supply (Canton, MA) Electrical Distributor
- Aslan Electric (Franklin, MA) Electrical Contractor



OUTDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/208V 3PH 4W WYE Demand Meter	100	3 Split CTs	30208-01D
	200	3 Split CTs	30208-02D
	400	3 Split CTs	30208-04D
	800	3 Split CTs	30208-08D
	1600	3 Split CTs	30208-16D
277/480V 3PH 4W WYE Demand Meter	3000	3 Split CTs	30208-30D
	5000	3 Split CTs	30208-50D
	100	3 Split CTs	30480-01D
	200	3 Split CTs	30480-02D
	400	3 Split CTs	30480-04D
347/600V 3PH 4W WYE Demand Meter	800	3 Split CTs	30480-08D
	1600	3 Split CTs	30480-16W
	3000	3 Split CTs	30480-30D
	5000	3 Split CTs	30480-50D
	100	3 Split CTs	30600-01D
208 or 240V 3PH 4W DELTA Demand Meter	200	3 Split CTs	30600-02D
	400	3 Split CTs	30600-04D
	800	3 Split CTs	30600-08D
	1600	3 Split CTs	30600-16D
	3000	3 Split CTs	30600-30D
480V 3PH 3W DELTA Demand Meter	5000	3 Split CTs	30600-50D
	100	3 Split CTs	3048D-01D
	200	3 Split CTs	3048D-02D
	400	3 Split CTs	3048D-04D
	800	3 Split CTs	3048D-08D
208 or 240V 3PH 4W DELTA Demand Meter	1600	3 Split CTs	3048D-16D
	3000	3 Split CTs	3048D-30D
	5000	3 Split CTs	3048D-50D

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For more information visit www.leviton.com/meters

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