



CASE STUDY

LabCorp Project Chill

How MBP Helped LabCorp
Uncover Utility Inefficiencies
and Improve Performance

Burlington, NC

CHALLENGE

Expanding a high-performance laboratory isn't just a construction challenge, it's an operational risk.

LabCorp was faced with expanding and modernizing a 233,000-square-foot active laboratory facility while keeping critical operations running uninterrupted. The project required integrating new and upgrading existing HVAC, electrical, and plumbing systems across a three-phase construction effort, while maintaining the strict environmental conditions necessary to protect specimens and support lab processes.

Compounding the challenge, LabCorp identified that the facility's utility costs were higher than expected, but the underlying drivers were not clearly understood. This created a need for a data-driven approach to uncover the root causes and implement solutions that could modernize infrastructure, maintain operational continuity, and reduce overall energy costs.

SOLUTION

MBP served as a trusted advisor to help LabCorp navigate the complexity of expanding and modernizing an active laboratory facility without compromising operations.

We provided comprehensive commissioning services from design through construction and into the warranty phase, supporting the entire project. MBP worked collaboratively with the entire project team to verify that new and existing HVAC, electrical, and plumbing systems were designed in accordance with the owner's project requirements, installed and performed per the design intent, and monitored operations during the first year of occupancy to verify the environmental conditions required for continuous laboratory operations were maintained.

Throughout functional performance testing, MBP identified and helped resolve critical system issues that could have put laboratory operations at risk. For example, testing revealed that the heating water system's standby boilers would not automatically engage upon failure of the lead boiler, creating a single point of failure for the entire facility. MBP worked collaboratively with the project team to implement control modifications that enabled true lead-lag operation, eliminating this risk prior to occupancy.

In parallel, MBP implemented a data-driven approach to evaluate the facility's utility performance and identify the underlying drivers of elevated costs. This effort included evaluation of utility bills, including energy consumption, utility cost schedules, and development of

a measurement and verification (M&V) plan to compare actual performance against the baseline energy model, providing LabCorp with clear insight into where and how to prioritize improvements.

RESULT

LabCorp successfully expanded and modernized its laboratory facility without disrupting ongoing operations, maintaining the critical environmental conditions required to support continuous laboratory processes.

MBP's energy management efforts have delivered a measurable financial impact. By consolidating seven electrical meters virtually, LabCorp eliminated redundant customer charges and qualified for a more favorable utility rate structure, resulting in over \$70,000 in annual

energy cost savings and approximately \$2,400 in reduced annual customer charges.

Early identification and correction of a critical boiler control issue eliminated a single point of failure that could have resulted in a loss of heating across the facility. Resolving this issue prior to occupancy reduced operational risk, protected specimen integrity, and avoided potentially significant financial and operational consequences.

Through a combination of commissioning, data-driven analysis, and collaborative problem-solving, MBP helped position the facility for reliable performance, improved efficiency, and long-term operational stability.

Achieved \$70,000+ in annual energy savings and \$2,400 in reduced utility charges while supporting continuous lab operations.

