

# CASE STUDY

## University of North Carolina, Chapel Hill Bioinformatics Labs Science Complex Chapel Hill, North Carolina

Making buildings work. **Better.**



### Owner:

University of North Carolina, Chapel Hill

### Schedule:

Phase 1 Caudill, Chapman complete 12/2006; Phase 2 9/2009

### Budget:

\$200,000,000 construction

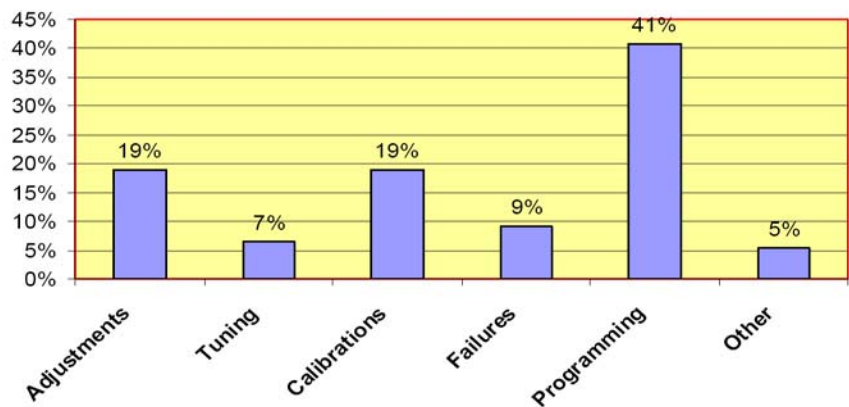
EMC provided commissioning for this Multiple Building Complex at the UNCC campus. Buildings included the Physical Science, Biology, Microscopy, NMR Imaging labs. Phase 1 included 260,000 GSF and Phase 2 included 215,000 GSF. The Facilities House Physical Sciences, Bio-Sciences, Astronomy labs were also part of the project. The scope included Commissioning of all HVAC, building controls, lab system (modules) controls; RO/DI, bio-safety hoods, fume hoods, environmental chambers, clean rooms, BSL-3 suites, chilled water, lab gases, process chilled water steam, heat exchangers, humidifiers, exhaust fans, heat recovery system, auditoriums, data rooms; and Life-safety interlocks, F/A shut-down sequences, failure mode testing, and GFCI verification, VFD's.

### Project included:

- \* Fume Hood (ASHRAE 110) 395 FH's 240 labs
- \* Mani folded AHU Systems
- \* Mani folded (dilution) Exhaust
- \* Supply-Exhaust Tracking Lab Control
- \* Separate BAS & Lab Control System
- \* Run-Around Loop Heat Recovery System
- \* Central RO/DI System (skid)
- \* High Purity Lab Comp. Air (scroll w/ desiccant)



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*Engineering Excellence Since 1976!*

## Company Overview

Making buildings work. **Better.**



EMC is dedicated to creating sustainable facilities by optimizing performance through energy modeling and analysis, building automation systems application, advanced mechanical and electrical design, construction management, and building commissioning to achieve lower energy costs, improved comfort, and increased productivity.

## Experience

Since 1976, EMC has been a leader in delivering high performance building solutions. As a multidiscipline firm, we have strong credentials in mechanical, electrical, and control systems retrofit and modernization and energy engineering and commissioning.

## Where do EMC's experts work?

You'll find us in schools, colleges, hospitals, government facilities, healthcare, and all types of private sector structures from supermarkets to office towers. In fact, EMC's engineers and technicians go wherever new facilities are under construction or existing structures or systems are operating at less than peak performance.



Whether you need a retrofit or a modernization or a new high performance building, you can rely on EMC to bring engineering excellence to your project.

Imagine reducing operating costs, improving comfort, increasing productivity, and getting your building's problems fixed quickly. EMC's services are the key!

## Services

### **BUILDING COMMISSIONING/RETRO-COMMISSIONING**

The commissioning process for new buildings and major renovations, provides facility owners with assurance the facility is functioning to meet their project requirements. Commissioning is the only process that assures a quality outcome. Whether you manage a new or existing facility, it's really difficult to know unless an independent commissioning expert has evaluated your systems. EMC's retro-commissioning services provide low cost, high return operating improvements that reduce operating costs. Think of it as a building "tune-up".

### **SUSTAINABLE DESIGN**

More organizations are considering Green building systems and renovations. But to go Green--affordably--you need integrated sustainable design. EMC provides energy simulation modeling, daylighting, and high performance systems concepts to meet LEED requirements. We're ready to advise and coordinate and show you how to make the wise choices that deliver real environmental and economic benefit.

### **ENERGY ENGINEERING**

Energy and how it's used affects quality-of-life and the global environment. Our core business is creating energy systems that optimize energy use. Our energy-engineering services ensure that you meet today's needs while planning for tomorrow's growth. This includes audits, assessments and implementation of energy improvement projects.

### **FACILITY DESIGN**

Integrated systems design is crucial to facility renovation and modernization, particularly in high performance facilities. EMC understands how to take cutting edge mechanical, electrical, and building automation system technology and integrate it into real world solutions. And we can do it while your facilities stay in operation.

### **DESIGN/BUILD**

Identifying your facility's energy issues is just half the battle. You then need a retrofit strategy that maintains the building environment and minimizes system downtime through every phases of construction. EMC is skilled at engineer-led, design/build projects, including efforts funded through Energy Savings Performance Contracting.

### **TRAINING**

Today's building systems are complex. But EMC believes any operations and maintenance team is up to the challenge--if properly trained. We offer an extensive program of live and videotaped training classes and seminars--on-site and hands-on.

## OFFICE LOCATIONS

Denver, CO \* Atlanta, GA \* Salt Lake City, UT \* Irvine, CA \* Raleigh, NC \* West Palm Beach, FL

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