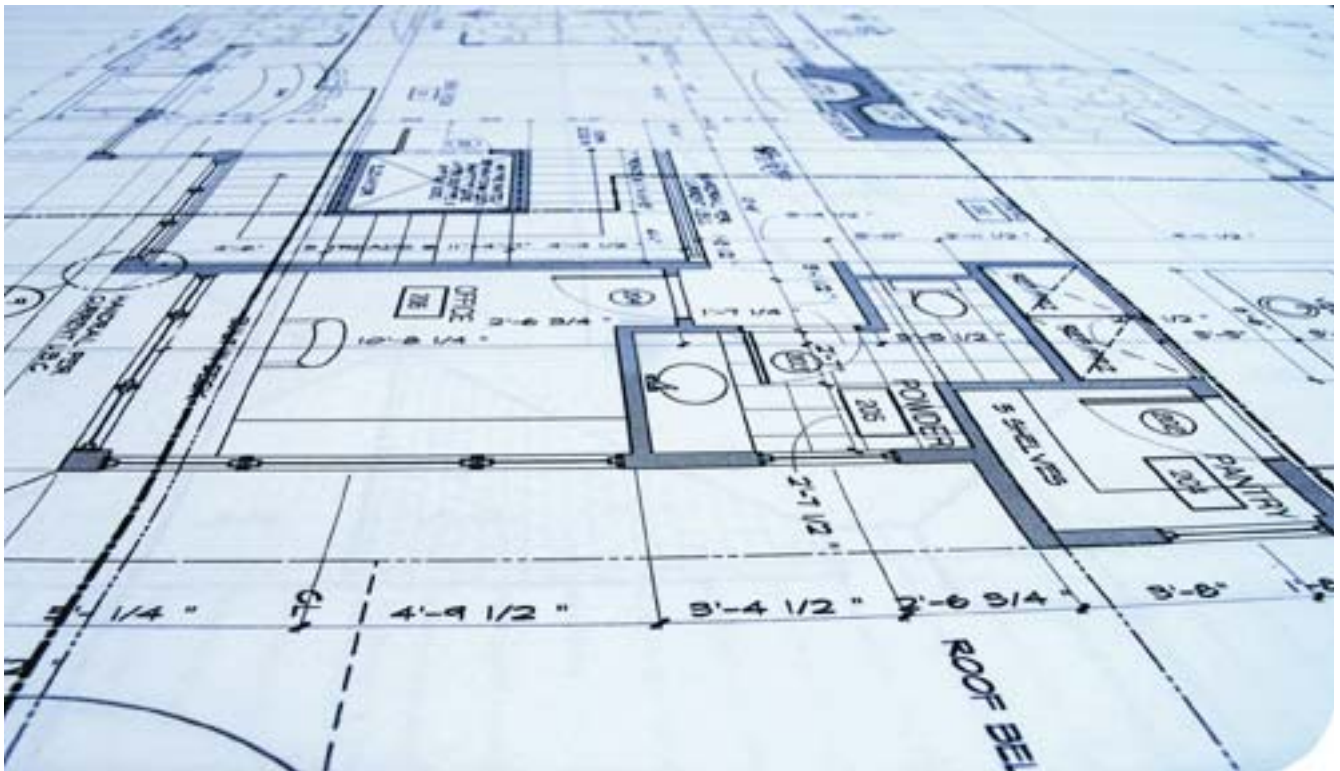


Building commissioning.



Moving from green design to real savings.



Moffett Towers, Sunnyvale, CA
LEED Rating: Gold

Moffett Towers is a new seven building office complex and fitness center in Sunnyvale, California. For the project, KEMA provided design assistance, LEED documentation, and LEED-enhanced commissioning services. To ensure an optimal indoor environment, KEMA developed the MEP performance criteria, designed building-energy models, peer reviewed the designs, and functionally tested the building systems. With KEMA's assistance, the first of seven buildings achieved a LEED Gold rating.

We are all familiar with the benefits of a properly tuned car—better gas mileage, lower emissions, and improved performance. Buildings are no different. Poorly installed or aging mechanical systems result in increased energy use, higher greenhouse gas emissions, and inflated operational costs.

As major companies and institutions seek to control energy expenditures and improve the environmental profile of their building portfolio, property owners and facilities managers are moving into the spotlight and being asked to find new ways to save energy. For new buildings, public and private clients are interested in integrating energy efficient designs and equipment as well as sustainable practices and materials into their projects.

Building owners require that concrete steps be taken to lower the cost of occupancy and reduce the overall environmental impacts of both new construction and renovations. With the increased attention on high-performance buildings, the need for commissioning is paramount. Commissioning delivers on the promise of increased efficiency and better occupant comfort. Commissioning is a process that delivers results.

"It's not green if it doesn't work!"

Practical experience on real-world projects

KEMA helps our clients improve the performance—energy efficiency, comfort, indoor air quality, equipment durability, and reliability—of their new and existing buildings. We offer comprehensive building commissioning solutions for all stages of building performance improvement projects, from the design phase through construction and on-going operations and maintenance after occupancy. KEMA has proven experience commissioning a diversity of building types, including:

- Multi-tenant commercial offices
- Government facilities
- Schools and universities
- Laboratories and high-tech facilities
- Restaurants and hospitality
- Retail establishments
- Residential and mixed-use commercial developments.

The relationship between commissioning and sustainable design has gained prominence and integrity with the increased emphasis on green building. The importance of commissioning is recognized by the Leadership in Energy and Environmental Design (LEED®) Green Building Rating System from the U.S. Green Building Council.

As part of its Energy and Atmosphere credits, LEED requires project proponents to engage a Commissioning Agent to verify installation and performance of building systems. Enhanced commissioning—which includes design review, training, a systems manual, and more—earns the project additional LEED credit.

Experts in LEED

KEMA's commissioning staff are experts in LEED-related building commissioning, performing both prerequisite and enhanced commissioning services. They regularly provide design-team integration; design review for energy efficiency, operability, and maintenance; and provide the functional testing to help building owners achieve the full potential of a LEED-certified building.

One of KEMA's strengths is our thorough understanding of how commissioning services can help project proponents meet their green building goals. We also understand the varying roles that commissioning can play among the multiple LEED programs such as New Construction, Existing Buildings: Operations and Maintenance, and Core and Shell. Regardless of whether a building owner is formally pursuing LEED, our team's knowledge and training of green building practices adds tremendous value.

Benefits of Commissioning

The benefits of commissioning, including increased energy savings, are well documented. Furthermore, there are substantial operations and maintenance benefits with cost reductions as much as 15 to 35 percent. Retro-commissioning existing buildings is a prudent step in improving the efficiency of a company's building portfolio.

For new construction projects, developers are recognizing the added benefits of commissioning that are above and beyond energy savings. These benefits include improved operating systems, a 30 percent reduction in change orders of systems to be commissioned, elimination of holdover and damage charges, and on-time rent commencement.

The financial benefits of commissioning are especially attractive to building owners and developers with the biggest savings tied to project financing. Commissioning building systems is a necessary step toward gaining a Certificate of Operation. With it, the owner can convert a construction loan to a conventional loan, which will lower interest rates and save money.

About KEMA

KEMA specializes in business and technical consulting, operational support, measurement and inspection, testing and certification. With 80 years of experience in serving energy and utility clients, KEMA has developed a reputation for integrating deep technical and functional capabilities with management expertise to provide solutions that deliver profitable, reliable, sustainable results. More than 500 energy and utility clients in over 70 countries rely on KEMA's impartial, objective and expert consulting services to plan, build and maintain their strategies for growth.



Peet's Coffee & Tea Corporate Office and Roasting Facility, Alameda, CA
LEED Rating: Gold

Peet's Coffee & Tea, a San Francisco Bay Area purveyor of artisan coffees and teas, built a new roasting facility to meet the increase in product demand. Among other green building features, the facility utilizes an ENERGY STAR compliant roof, natural light with skylights and side windows, and a new heat recovery system, resulting in a 40 percent decrease in gas usage on two roasters. For the project, KEMA provided comprehensive LEED design assistance, documentation, and commissioning services. The project was the first LEED-certified roasting facility in the country and achieved a LEED Gold rating.

For additional information, please contact:

Sustainable Buildings and Operations
KEMA, Inc.
492 Ninth Street, Suite 220
Oakland, CA 94607 USA
Tel: +1 510 891 0446
www.kema.com

www.kema.com

