



# Commissioning Services



*We offer commissioning services to enhance our design services and provide a life-cycle level of service.*

## *The M+NLB Difference*

Mazzetti Nash Lipsey Burch (M+NLB) offers commissioning services to enhance our design services and provide you with a life-cycle level of service. These services are outside of the traditional boundaries of engineering design and are provided to give you a comprehensive approach to facility conception, design and operation.

Many of the buildings that we routinely work in require a very high level of reliability, whether that is to protect industrial or manufacturing processes or human life. These building types include data processing centers, airports, hospitals, microelectronics, biotechnology, laboratory and physical sciences, museums and central telephone and telecommunications facilities.

The key to our commissioning team is our people. All of our professionals have served as facility managers; mechanical, electrical, clean and toxic process and telecommunications discipline leaders. They have lived and solved your problems before. Couple that with a platinum-grade engineering staff, and you have a powerful consulting and problem-solving combination.

## *Commissioning Expertise*

Our firm has completed the commissioning on over 70 facilities covering over 5,000,000sf of space and \$3B worth of construction. Further, we have another 3.5Msf of preconstruction and space that we're presently in planning and workup for. Our work spans the mission-critical, acute/inpatient healthcare, biotechnology/pharmaceutical, institutional, food process and commercial building environments. M+NLB understands the great benefits and cost savings to be realized from early commissioning services and have been in this business for over ten years.

## *What is Commissioning?*

Commissioning is the systematic application of quality control procedures to produce a building that operates per the design intent. Typical outcomes of a properly commissioned building include:

- Increased reliability
- Equipment that is maintainable
- Energy efficient operation
- Fully trained operating staff



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*Commissioning goal: Deliver a project that works as designed to an owner who understands its operation.*



## Why Commission?

- No tolerance for unexpected downtime
- Validate operation or performance
- Identify failure modes
- Confirm intercommunication of systems
- Optimize operation
- Jurisdictional requirements
- LEED requirement

As those in the industry are aware, the commissioning process is a highly effective method to improve the performance of building systems and equipment. It's no surprise, then, that the U.S. Green Building Council realized the intent of commissioning went hand-in-hand with the goals of the LEED™ rating system. As a result, commissioning is an integral and required component of LEED™ certification.

## Commissioning Deliverables

With our experience in all aspects of the commissioning process, we have produced a variety of deliverables, including:

- Design Review: Review Design and provided comment during design phase
- Cx Plan: Author the Commissioning Plan
- Specifications: Author and Integrate Commissioning Specification for Construction Team
- Functional Test Plans: Author functional test procedures
- Witnessed FT: Witness and document functional tests
- Hands-on Tests: Perform functional tests
- Data/Trending: Use data loggers or EMS trend logs for testing
- Training: Develop or approve staff training

- Review O&Ms: Review completed O&M manuals
- Supervise CxA: Supervise Commissioning Agent subconsultant to the firm
- Team w/CxA: Work with CxA hired by others

## What We Can Do

Cx Services we provide:

- Facility Commissioning
- Recommissioning (Retrocommissioning)
- Monitor Based Commissioning (MBCx)
- LEED Commissioning & Consulting
- Design Review for Operations and Maintenance efficiency
- Identification of Single Points of Failure
- Development of system sequences to insure consistent and efficient operation
- Oversight of operations staff training
- Energy Efficiency Review and development of Energy Conservation Measures
- Identification of Utility, State and DOE rebate opportunities
- Facility Monitoring and Forensic Evaluation
- Operations Staff supplementation

## Let Us Know How We Can Help

For more information about M+NLB's Commissioning Services, please call David Lennon at 615.312.6482 or your local M+NLB office. We also welcome you to visit our website at [www.mazzetti.com](http://www.mazzetti.com).