BUILDING COMMISSIONING
A Means of Achieving a More Successful Project
Numerous options are available to assist you.

The building commissioning process is an independent review verifying that a completed facility meets the design and operational goals.

Building commissioning involves a review of facility systems. The process typically focuses on systems and assemblies having to do with the project's operational performance including HVAC systems, building envelope, lighting controls and daylighting systems, power and safety alarms, etc. This process is suited to all project delivery methods. This will help to ensure quality construction with optimized energy efficiency, indoor air quality and user comfort.

The goals of the commissioning process include:

- Achieve better long-term operational performance of the building
- Improve quality through better monitoring of Owner needs to the delivered project
- Optimize life cycle costs
- Deliver new buildings, rehab existing buildings, modify spaces in buildings, and additions to facilities that result in few problems at turnover
- Provide improved Operations & Maintenance training and manuals.

The Commissioning Process is led by a Commissioning Agent who serves as the objective advocate for the Owner and directs the process. The Commissioning Agent should be identified as early as possible in the project timeline, ideally at the project inception. As with design services, Commissioning Services should be procured using a quality based selection (QBS) process by the owner. The selected Commissioning Agent then leads the Project Team (Owner/Designer[s]/Contractor[s]) whose responsibilities to the Owner include:

- Clearly define, document, and convey success criteria
- Create a Commissioning Plan
- Include the Commissioning Requirements in the Bid Documents
- Prepare test procedures and documentation used to functionally test systems and assemblies
- Verify installation of systems and assemblies at critical stages throughout the construction process.
- Ensure problems and inefficiencies are identified, documented, and corrected during this process.
• Complete the initial start-up and checkout
• Verify operations and maintenance personnel are trained and have adequate documentation (Operations & Maintenance manuals)
• Prepare a final Commissioning Report

With the advent of various sustainable certifications for buildings, the Commissioning Process has achieved greater significance and is often a basic prerequisite requirement.

For buildings already constructed that were not commissioned, there is also “retro-commissioning”. It is a process to ensure building systems perform interactively according to the design intent and/or to meet the owner’s current operational needs.

Commissioning is the Owner's means of verifying that the planning, design, construction and operational processes are achieving their goals to deliver a high quality building meeting the Owner's initial success criteria and operating as specified during the life of the facility. Therefore, commissioning does not necessarily end when the building is complete, but should be employed throughout the facility’s life cycle as a means of effective facility management.

REFERENCES
ASHRAE Guidelines 1 Building System Commissioning
CSI Project Delivery Practice Guide
NEBB Procedural Standard for Building Systems Commissioning
Construction Guidelines: Engagement of Professional Design Services
Construction Guidelines: Life Cycle Cost Analysis
LEED Current Version: Energy and Atmosphere
FMI Management Consulting: Building Commissioning and Testing, Adjusting & Balancing

Issued: 2006
Revised: 2009, 2015