

COMMISSIONING SERVICES

WHAT IS COMMISSIONING?

Commissioning is a quality-assurance process that analyzes, documents, and tests all mechanical and electrical systems used within a building to verify each system performs according to the original design. Commissioning Agents also verify the systems intent and ability to meet energy performance needs for the owners and building occupants.



Ask Us About Commissioning
For LEED Certification!

Commissioning Calibrates Your Building And Shapes Optimal Energy Performance.

A world class, low-energy, designed complex can quickly become a utility bill nightmare if it is not constructed or maintained correctly. Commissioning verifies the building and its engineered systems are installed and operating properly. Our approach to commissioning is predicated on clear and timely communication with you and your team. Strang has consulted with scores of clients on commissioning projects, and we have learned that communication with the client's project management and facilities teams is critical for success. Our holistic approach includes the following steps:

- » Site Visits
- » Meetings
- » Control
- » Construction Checklists
- » Functional Testing
- » Test Support
- » Test Equipment
- » Testing Process
- » Safety
- » Reporting

SERVICE:	WHEN TO USE:
Commissioning	New Construction or Renovation
Ongoing Commissioning	Large, Complex Buildings With High Energy Use
Recommissioning	New Buildings Commissioned During Construction
Retro-Commissioning	Old Buildings That Are Expensive to Operate



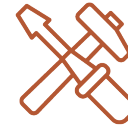
DESIGN REVIEW

- » Regular Site Visits
- » Regular Cx Meetings
- » Review Basis of Design Documents
- » Develop Commissioning Plan
- » Develop Construction Checklist
- » Test Existing-to-Remain HVAC Systems
- » Develop Test Procedures
- » Document
- » Develop Training Procedures Document/Specs
- » Develop Commissioning Specification Sections
- » Early-Phase Design Review
- » Design Review: Design Development Documents
- » Review Construction Documents
- » Design Review: Construction Documents
- » Design Review Summary Meeting with Consultants/ Design Team
- » Deficiency Log Update
- » Project Management



BIDDING/ NEGOTIATION

- » Regular Site Visits
- » Regular Cx Meetings
- » Respond to Contractor Bidding Questions
- » Deficiency Log Update
- » Project Management



CONSTRUCTION

- » Regular Site Visits
- » Regular Cx Meetings with Owner/ Designer/Contractor
- » Contractor Cx Kick-Off Meeting
- » HVAC Controls Collaboration Workshop
- » Submittal Review
- » Update Commissioning Plan
- » Functional Performance Testing: Building Enclosure, HVAC, Electrical, Technology, Plumbing, Renewable Energy Systems
- » Verify Measurement and Verification Installation
- » Finalize Systems Manual
- » Finalize Deficiency Log
- » Test and Balance Verification
- » Witness Building Inspections
- » Closeout/O&M Review
- » Witness Owner/Agency Training
- » Final Commissioning Process Report
- » Sustainability Program Documentation
- » 10-Month Warranty Walk-Through (Multiple, Per Phase)
- » Lessons Learned Meeting and Introduction to Ongoing Commissioning
- » Project Management

BENEFITS INCLUDE:



Lower Utility Bills



Improved Occupant Health & Wellness



Extended Equipment Life



Improved Building Operation and Maintenance



Reduced Operational Costs



Greater Integration of Building Systems & Equipment



Improved Equipment Function

EXAMPLE OF COMMISSIONING PROJECT PROCESS