



FUNDAMENTALS OF PROJECT MANAGEMENT (FPM)

FOR CONSTRUCTION

John Koontz



Mechanical Contractors Association of America, Inc.

1385 Piccard Drive Rockville MD 20850 T 301 869 5800 F 301 990 9690 MCAA.ORG



Fundamentals of Project Management (FPM)

These seminars are specifically directed to junior and senior level project management personnel such as field engineers, project engineers, assistant project managers, project managers, senior project managers, NEI estimators, senior estimators, etc

FPM 100: 8 or 4 hours in-person | 4 or 2.5 hours virtual

Planning Skills for the Project Team

All great project managers are master planners; there is no such thing as a great project manager who is a “decent” planner. All wildly successful projects are incredibly well planned by all members of the project team; project manager, foreman, fabrication manager, coordination manager, safety manager, warehouse manager, purchasing manager, etc. The project manager is the “president of the project” and is ultimately responsible for all project planning and the quality of that planning. This session will focus on the project manager’s role and responsibilities in project planning and the three stages of planning; 1) Information Turnover, 2) Preconstruction Planning, and 3) Short Interval Planning. This session will also focus on the direct relationship between planning, productivity, and profitability.

FPM 101: 4 hours in-person | 2 hours virtual

Productivity Improvement for Mechanical Projects

Great project management, by both the foreman and project manager, is primarily responsible for creating excellent productivity on every project. Due to the endless number of variables, which negatively effect worker efficiency, excellent productivity is the project team’s greatest challenge.

Productivity also has the greatest positive or negative impact on project and company profitability. Excellent productivity requires proactive, diligent, and detailed planning by the project manager and foreman at each step of the project. This session will provide proven methods and practices for creating, controlling, and improving project productivity on all types of projects.

FPM 102: 8 or 4 hours in-person | 4 or 2.5 hours virtual

Using the Contract as a Tool for Project Management

Gain a basic understanding of contract types and components, and learn how to use the contract to maximize profitability while managing a mechanical construction project. Learn skills to help you know what the contract says and how to organize and manage the project accordingly.

FPM 103: 4 hours in-person | 2 hours virtual

Fundamentals of Job Cost Control

In this session attendees will gain an understanding of the job cost control and labor cost trending methods as detailed in the Job Cost Control section of the MCAA Project Manager’s Manual. All project managers must learn to use their job cost control system as a primary management tool to control and cause a positive project outcome rather than simply focusing on cost documentation and cost history. Great project managers

CONTROL cost while average project managers tend to WATCH cost. This “basic” session is geared to new or potential project managers with little or no experience in job cost control systems and procedures and is also a great refresher for more experienced project managers.

FPM 104: 4 hours in-person | 2 hours virtual

Time Management Skills and Managing Multiple Projects

Project management is a dynamic and challenging thing to do for a living. It creates numerous time management challenges for the project manager and causes daily chaos that must be successfully managed in a way that maintains project productivity, project profitability, and customer relationships. Effective and efficient managers of time who can successfully manage multiple projects are therefore invaluable to their firms. Improving time management skills is a difficult proposition that takes great personal commitment and self-discipline from the project manager. This session identifies the greatest time wasters and provides strategies for improving time management skills. Students will identify and discuss the best practices required for becoming a better manager of multiple projects.

FPM 105: 4 hours in-person | 2 hours virtual

Effective Project Documentation

Documentation is a very time consuming but necessary evil in the construction process. Due to the great risk accepted when a mechanical contractor signs a contract, all mechanical projects must have a contemporaneously written factual record/history of all significant events, written by the people closest to the work. The key is having the right amount and type of documentation based upon the specific characteristics of the customer and the project. Over documenting a project wastes valuable company resources and can distract the project team. Under documenting a project gives the project team a false sense of security and puts the company in an unnecessary position of risk if something goes terribly wrong on the project. This seminar will review project documentation types, discuss the steps necessary to plan and implement the project documentation process, and review the proven methods for successfully documenting all types of mechanical projects.

FPM 106: 8 or 4 hours in-person | 4 or 2.5 hours virtual

Change Order Management: Best Practices for Success

Successfully managing change orders on a complex and constantly changing project is a seasoned project manager’s greatest challenge and a new or inexperienced project manager’s greatest nightmare. If not well managed by a proactive and knowledgeable project manager, change orders can cause unnecessary additional risk, destroy base contract labor productivity, ruin customer and contractor relationships,



Mechanical Contractors Association of America, Inc.

1385 Piccard Drive Rockville MD 20850 T 301 869 5800 F 301 990 9690 MCAA.ORG

Fundamentals of Project Management (FPM)

These seminars are specifically directed to junior and senior level project management personnel such as field engineers, project engineers, assistant project managers, project managers, senior project managers, NEI estimators, senior estimators, etc

choke cashflow, reduce or eliminate profitability, and create nearly irreversible negative jobsite moral. Attendees will learn numerous strategies and proven best practices for successfully navigating this multi-faceted and complicated challenge.

FPM 107: 4 hours in-person | 2 hours virtual

Project Billings and Maintaining Positive Cash Flow

Maintaining positive cash flow is one of the project manager's greatest challenges. The construction industry's standard billing and payment model has the potential to create poor cash flow on almost any project. This seminar focuses on how the project manager, with planning, creativity, excellent project execution, and positive customer relationships, can regularly create positive project cash flow.

FPM 108: 4 hours in-person | 2 hours virtual

Essential Management Skills for the Project Manager

Learn the unique, basic management skills of a mechanical project manager. The primary focus of this seminar is people management. Attendees will gain an understanding of the essential traits, skills, and behaviors that foster effective management.

FPM 109: 4 hours in-person | 2 hours virtual

Basic Negotiating Skills for Project Managers

Mechanical project managers spend a substantial part of each day negotiating. They negotiate numerous items including customer issues, change orders, subcontracts, equipment and material purchases, rental equipment rates, submittal and shop drawing approval, time and space allocation, back charges, etc. Most project managers have no formal training in negotiating, putting them at a great disadvantage. This seminar provides the basic skills to improve negotiating abilities and increase the project manager's comfort level when negotiating.

FPM 110: 4 hours in-person | 2 hours virtual

Mechanical Scheduling: Project Leader vs. Project Follower—Understanding the Basics

The days of relying upon unrealistic and illogical schedules created by general contractors (GC) and construction managers (CM) are long gone. Today, mechanical contractors must be project leaders. To be a project leader, the mechanical project manager and foreman must jointly develop a logical, reasonable, and achievable mechanical project schedule. The mechanical work must then be managed against that schedule, thereby using it as a project baseline. Scheduling the mechanical work also provides more project control and better documentation when projects, which are often delayed by others, are forced to accelerate to meet the original completion date.

Mechanical contractors who do little project scheduling often find themselves at the mercy of unrealistic GC/CM/owners' schedules. Attendees will learn, "If you have no schedule, you have no plan."

FPM 111: 4 hours in-person | 2 hours virtual

Critical Leadership Skills for Project Managers

Strong leadership skills are critical to successful project management. The success of project managers, who typically manage multiple projects, largely depends on the performance of several jobsite teams. In turn, company success depends on the project manager's performance. There is no such thing as a great project manager who is a weak leader. To have successful projects and a successful career, the project manager must develop critical leadership skills. This seminar provides an understanding of these critical leadership skills.

FPM 112: 4 hours in-person | 2 hours virtual

Profitability Managing Your Subcontractors

Subcontractors represent a significant portion of mechanical contracts, and the performance of your subcontractors is a direct reflection of your own performance in the eyes of an owner, construction manager, or general contractor. The project manager's effective management of subcontractors ensures a successful project that is profitable, completed on time, and completed within budget. When the project manager and foreman properly manage subcontractors, mechanical contractor risk is low, customer satisfaction is high, and strong, long-term relationships are developed between the mechanical contractor and their subcontractors. This session will include the following subcontractor management topics:

- Writing strong subcontracts
- Thorough review and analysis of subcontractor scope
- Managing change orders
- Proper communication
- Developing strong relationships
- Managing safety, billing, and payment procedures
- Documentation

FPM 113: 4 hours in-person | 2 hours virtual

Successful Survival of Project Closeout

The end of a project is usually a challenging and difficult time for the project manager and foreman. There are several tactics and strategies the project manager and foreman can implement to improve end-of-job performance and mitigate the difficulties of project closeout. This seminar will include the following project closeout topics:

- Punch list
- Warranties
- As-built drawings



Fundamentals of Project Management (FPM)

These seminars are specifically directed to junior and senior level project management personnel such as field engineers, project engineers, assistant project managers, project managers, senior project managers, NEI estimators, senior estimators, etc

- O & M manuals
- Customer satisfaction
- Closeout productivity improvement
- Demobilization
- Change order finalization
- Final payment
- Feedback meeting

FPM 114: 4 hours in-person | 2 hours virtual

Best Practices of Blue Chip Mechanical Project Managers

Why are some project managers consistently more successful than the “typical” project manager in our industry? What separates good project managers from great project managers? While age, experience, attitude, and talent are important factors in a project manager’s success, attendees will learn the best practices of any project manager who has the attitude, aptitude, and desire to improve and succeed. This seminar includes an overview and in-depth discussion of the best practices used by the industry’s best project managers. It also provides a review of the traits and qualities that are the common denominator among excellent project managers. This seminar will serve as an overview and refresher for many of the seminars found in the Fundamentals of Project Management (FPM).



Mechanical Contractors Association of America, Inc.

1385 Piccard Drive Rockville MD 20850 T 301 869 5800 F 301 990 9690 MCAA.ORG

**About the Instructor:**

John R. Koontz, MCAA's Director for Project Management Education, brings a balance of academic and practical experience to his courses. A former tenured associate professor in Purdue University's Department of Building Construction Management, he served as Purdue's mechanical construction management coordinator. He has been teaching since 1992.

Prior to this, he spent 15 years in the employment of MCAA contractors in a variety of positions including senior project manager, project manager, project engineer, and estimator. Professor Koontz is the director of the MCAA Institute for Project Management and Advanced Institute for Project Management at the University of Texas in Austin. He also served as Academic Representative on the Board of Trustees of the Mechanical Contracting Education & Research Foundation. In addition to traveling the country to support MCAA's National Education Initiative, Koontz remains active in continuing education, research, and writing in the area of mechanical contracting and MCAA Student Chapter development.

Contact Information:

Contact John at **765-426-8376** or johnmechprof@gmail.com.

To Schedule a Course:

1. Visit mcaa.org/initiatives/nei
2. Find the seminar/course you want to schedule.
3. Click "SCHEDULE A COURSE".
4. Fill out the form and select the specific course you are interested in.

About the National Education Initiative (NEI):

MCAA will bring lifelong learning directly to you! The National Education Initiative Seminars are our best MCAA/MSCA programs—brought to your local association or even your company. Our goal is to provide ongoing and advanced education and training in support of individual and association growth across the mechanical contracting industry. We offer standard and custom-designed classes exclusively for your association or company's unique needs and challenges. If you need training quickly or have a large group, we are here to help!