



Construction Project Planning for **Material Management Success**

Embed material into your project plan to protect and enhance profitability.

WESCO[®]

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CHAPTER 1:

Introduction to Project Planning

Prior to starting a new construction project, the foreman, estimators, BIM Modelers, and often executives schedule time to discuss the project elements. They evaluate the makeup of the job site team, project manpower, and partners for key material on the job.

Often due to time constraints, this kickoff meeting is too short. Gaps are left in the plan and unmade decisions require future follow up.

With all these considerations, sometimes material gets left on the sideline until the crew is about to mobilize on the site. Traditional contractors usually defer to the seasoned electrical leadership on the site to build out their initial product lists while the major items are being submitted and reviewed.

Savvy contractors know that their team is part of the profitability equation. They build material into their project plan and enlist their supplier partner to monitor, track, and deliver it according to the project.



So, what's goes into project planning?

Project planning is the process of outlining all the foreseen variables related to material needs at a construction site. Project planning includes:

- Material specifications
- Quantities
- Specific manufactures/brands (if applicable)
- Delivery methods and locations

This is also an opportunity to address any kitting, assembly, and stage and store requirements.

Why pre-plan?

In the world of construction projects, we've never heard anyone say that too much planning was a project's downfall. There's really no downside to planning in advance of a project (both on the job, and in your personal life, but that's just us).

If that's not enough to convince you, here's why you should care about project planning.

Contractors are super busy.

Construction contractors are constantly on the go – and constantly against the clock to complete various projects. Project planning may seem time-consuming up front, but it actually saves you time in the long run.

Project planning helps ensure that the right material is at the right place at the right time.

You're never too busy to plan.

In fact, you can't afford to not plan. Project planning leads to increased efficiency and on-time project completion that meets budgetary requirements.

If you think you're too busy for project planning...

The alternative isn't great. Picture cost overruns, miscommunication with suppliers, and reduced productivity. Ultimately, failing to plan can cause chaos on the job site.

But the outlook is bright.

Here's the good news. Project planning has zero downsides, with increased efficiency and cost savings as major upsides.

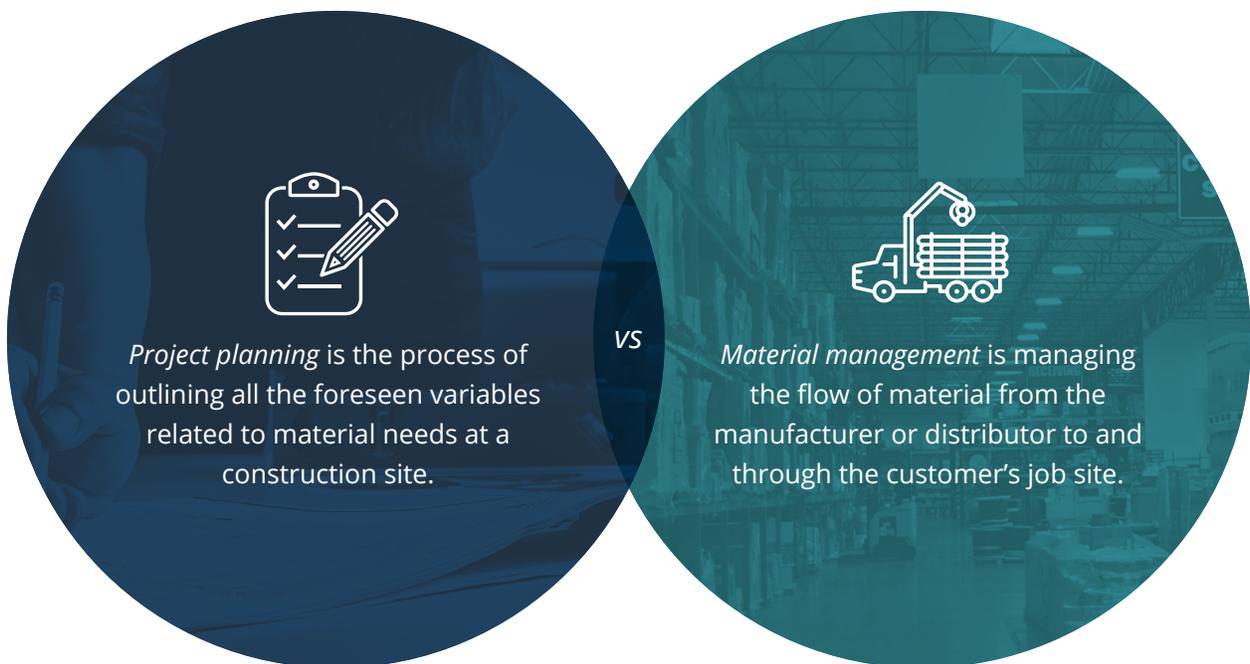


CHAPTER 2:

Understanding Project Planning and Material Management

Project Planning vs. Material Management

Project planning is one sub-segment under the larger initiative of material management. Sometimes these terms are used interchangeably, but they actually have different meanings.



Material management organizes the flow of material in a well-planned manner to increase efficiency. Effective material management can greatly increase efficiency and reduce labor costs.

Project planning occurs well before the project begins, while material management is the ongoing oversight of getting the material from the customer/distributor to and through the project site efficiently.



When should you start planning?

As soon as possible. As soon as you have a project in the pipeline, get your distributor involved. It's never too early to start the planning process, even prior to bid.

Engage your distributor partner during the plan/spec review, pre-bid meetings and site visits. Understanding the scope of the project and the lay of the land will provide insights as to what and how you may be able to deploy your own and/or shared best practices. This will provide you with a competitive edge during the bid process.

Once awarded the project, work with your distributor to define and refine the services and resources required for a successful and profitable project. Together with the distributor's supplier partners, they can leverage their combined services and solutions to streamline the material to point of installation flow and maximize profits.

If there's only one thing you take away from this eBook, it should be this: it's never too early to plan. It's also never too early to engage your distributor partner.

What's the benefit of material management?

Contractors who implement material management processes typically see a five percent increase in labor. The result? Doubled profits.

**A 5% increase in labor
can double profits.**



Success on a Project Doesn't Happen by Accident

Effective material management rarely happens by accident. Success is driven by project planning.

A successful project is defined as an on-time and on-budget project completion. Material delivery and other associated functions support these initiatives.

CHAPTER 3:

Starting Your Project off on the Right Foot

A Material Management Project Planning Checklist for Construction Success



Collect schedules, drawings and estimated quantities. Consider:

- Contract specifications
- LEED® requirements
- Regulatory requirements
- BIM utilization



Layout material requirements by project dynamics:

- Underground
- Slab products
- Wall rough
- Equipment/electrical room rough
- Mechanical rough
- Overhead rough
- Switchgear
- Lighting
- Trim



Discuss applicable material solutions and required customization with the project team.

- Kitting: Selling and delivering frequently associated items together as one SKU rather than multiple
- Pre-Fabrication: Material that is fabricated off-site to be integrated with the main construction project on-site
- Assembly: Subassemblies put together off-site that easily integrate on-site
- Stage-and-Store: Customer purchased material held by the distributor enabling better space utilization on-site. [This can be especially helpful with lighting projects.](#)
- eBusiness/eProcurement: The use of online technology to procure, track and manage material
- Cable management: Management of electrical or optical cable in a cabinet or an installation
- Clean-up recycling plan
- [Material footprint management](#)
- Material security
- Safety

Continued...



Create a material delivery plan.

- What is the material delivery location for each phase?
- What type of material handling is necessary to get from truck to delivery or point of installation?
 - Carts
 - Dollies
 - Gang boxes
 - Point-of-use solutions
- Who delivers to location (supplier or electrician — based upon Union requirements)?
- What is the rotation and refill methodology for material by area?



Break down the estimated quantities by area and chosen delivery method.



Manage lead times on non-standard and standard items.

- Decide on a process to mitigate potential roadblocks.
- Have weekly contact with the foreman to discuss onsite material, schedule modifications, and upcoming material.



Convert breakdowns into plan by schedule.



Regularly update and monitor the following:

- Material releases by on-site crew
- Material adjustments incorporated
- Material staged for release
- Material delivered



26 Questions to Ask Before Starting a Project

- 1 Do we have an overall schedule?
- 2 Do we have task durations?
- 3 Is the job set up in phases or areas?
- 4 How is our estimate broken down?
- 5 What material have we committed?
- 6 Are we using BIM for the project?
- 7 What is the schedule for our BIM modelers to start, and how much ahead will they be?
- 8 What project restrictions do we have for space?
- 9 What safety elements can impact the project flow?
- 10 What security obstacles will be present on the project?
- 11 What level of digitization of drawings and RFIs is the project using?
- 12 How can our material be coordinated with our manpower loading?
- 13 How can our material be coordinated to scheduled requirements?
- 14 What level of notice are we requiring for deliveries?
- 15 What restrictions do we have on delivery times and unloading?
- 16 Who is the key contact for material ordering?
- 17 Who is going to handle material receipts?
- 18 Can we bill for staged-and-stored key material projects at a bonded warehouse?
- 19 What Leed requirements do we have with respect to packaging and trash?
- 20 What is the process for scrap material?
- 21 When do we anticipate permanent power?
- 22 What needs to be protected before power can be turned on?
- 23 What are the temporary power requirements?
- 24 How are we tracking what we have ordered for temporary power?
- 25 Who is monitoring purchases versus estimated quantities?
- 26 What material comes first?

Even if you're putting together BIM models, you need a projected material flow based on a sequence and area which can then be refined by the BIM model to tighten routing and footages.

All of these elements and products must be delivered sequenced by area and schedule: underground rough, wall rough, overhead rough, wire pulling, feeder pulling, fixture installation, termination, devices and mechanical connections.

CHAPTER 4:

Factors to Consider When Implementing a Material Management Strategy

Don't Forget About Compatibility and Sourcing When Starting the Project Planning Process

In addition to pre-bid plans and specs review, use the project submittal review process with your distributor as an opportunity to gain a deeper understanding of the project dynamics and eliminate potential pain points with installation or schedules.

Compatibility

Verify the compatibility of components. Coordinate mechanical and electrical drawings to verify voltage, phase, service, starters and disconnects.

Sourcing

Consider any sourcing requirements or restrictions. For American companies, "Buy American" initiatives may need to be considered when identifying suppliers and product to be used on the job.



Contractors may also need to determine union jurisdiction rules regarding who can perform jobs such as loading and unloading. Be sure this is discussed to avoid noncompliance!

Site Management

Keeping a job site clean and organized is easier when you have a strategy for material management. Don't forget these two steps:

1. Develop a secure tool and material storage plan.
2. Develop a cleanup and pick-up plan.

Sometimes the logistics of a job site means that there's no room for any trash at all. One contractor in Seattle needed to complete a lighting retrofit, but there was no room for trash or dumpsters on site.

[READ THE STORY »](#)



CHAPTER 5:

Contractors Don't Have to Do This Alone

Project Planning Requires Checking a Lot of Boxes

Contractors have a lot to consider before a big construction project. Between managing your people, job site, material requirements, lead times, and deliveries, there are a lot of moving pieces. Planning in advance of a project will save time down the road and increase the odds of an on-time, on-budget completion.

Remember, you can't afford to not plan.

Contractors Don't Have to Manage It All Themselves

Managing all of these moving pieces is easier with a partner. Distributors are uniquely positioned to help you with many of the most challenging logistical aspects of a construction project.

You Don't Have to Be the Logistics Expert

WESCO Distribution has expert staff in gear, lighting and all components. We also have access to engineers who can assist in the process. We provide logistical expertise so that you can focus on the job at hand.

We take the time to ensure that materials are verified during project planning. WESCO understands that there are delivery specifics unique to each area. Having the material prepared ahead of time and delivered to the point of installation is what a true partner does.

The labor savings achieved from material ordering, receiving, lack of backorders, lack of rework, and productivity from point of installation availability combined with material cost savings from pricing by aggregated spend are essential to project profitability.



Regardless of what support you need on site, we can keep your project running smoothly.

The Most Important Box to Check

Projects don't usually run over-schedule or over-budget because there was too much planning. We know the opposite is true – project planning can eliminate fire drills and lead to greater profitability.



WESCO's value-added services help contractors manage the most demanding construction schedules. Learn about our supply chain solutions and find services available in your local area.

[Discover WESCO Construction Services in Your Area »](#)

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