How Can You Best Support Your Project Managers?

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Who do you depend on in your company to 'deliver the job' on time, with quality, and at or below cost? Typically, the answer to that question is the project manager. It's likely your company has the strong ones... and the not-as-strong ones. How can you tell them apart? And more importantly, when in the job do you recognize which is which? How can your organization ensure consistent results independent of the differences in skill sets?

Project-based companies can use Work Breakdown Structure to define and separate the work so that resources can be determined and assigned effectively. MCA, Inc.'s research shows that this is especially useful for construction contractors, as every hour of planning the job upfront results in 17 hours of labor savings in the field. This is due to the focus of planning out the work on the job, documenting it in a Work Breakdown Structure (WBS), defining resources for each task, and then measuring the work to the plan. Applying the ASTM E2691 standard for Job Productivity Management (JPM) with the use of software like JPAC® and SIS®, a company can measure their productivity in the field on each job, as well as understand how all the jobs roll up to gains and fades at the company level.

There are four phases for every construction project. They are

- Planning
- Procurement
- Installation
- Closure¹

Figure 1 shows an example of a WBS for the installation phase of a project. When the field creates their WBS, it is very normal (or



Figure 1: Example of a Work Breakdown Structure (WBS) for the Installation Phase of a Project

should be) to ask them: 'What work MUST be done on the jobsite?' This leads to defining prefabrication opportunities on the job. This helps with safety, and quality in most cases. It's also common to think through 'What work can your helpers, apprentices, or even your suppliers help you with?' That is the act of separating out work not only between the skill levels, but to crewmembers and teammates that may be more in-practice or skilled at some activities.

Looking again at Figure 1, there is much more to the project than the field deliverables. Similar to how the field lead plans and breaks down the work for their project and distributes the work to their team, it's logical that the same can be done for the work of a project manager. In the traditional contractor model, a project was bid, awarded, and then 'thrown over the wall' for the tradesmen to handle². This includes the project managers, in many cases. Using the example of the installation WBS for a project, can you see things that can be moved to others on your team? Many companies are supporting the project managers, and the company overall with the addition of project coordinators (also named assistant project managers or project engineers). These roles often vary in scope, based on their experience or your company's needs. Figure 2 shows the variety of tasks that the project coordinators (PCs) may do in their support of project managers. There are PC tasks, tasks that interface with Agile Construction[®] and the application of ASTM E2691, and there are scheduling tasks for large projects. The roles of a PC can also fall into the four phases of a project. The PC can help coordinate all administrative duties in the project delivery process, including communication between the field (internally) and the owner, general contractor (GC), and vendors (externally). This has the PC assisting with organizing and controlling release of project documents to support the project schedule. Explanations of some of the roles of the project coordinator in Figure 2 that can save your project managers time to work most

¹ Daneshgari, Dr. P. (2009-2020). Agile Construction® for the Electrical Contractor, Second Edition

² Daneshgari, Dr. P. (2002). Optimized Operational Model for Maximizing Electrical Electrical Contractor's Profitability. Electrical Contracting Foundation.



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effectively between the field and the office are listed below:

- 1. Procurement
 - a. Complete vendor information forms
 - b. Maintain procurement log
 - c. Coordinate with internal purchasing personnel for status on material deliveries
 - d. Ensure purchase order numbers in absence of purchase order personnel
 - e. Coordinate job site deliveries with vendors or warehouse team
 - f Track material costs on the job
- 2. Billing
 - a. Create and update AIAs to support hilling
 - b. Review follow up with field work orders and support billing
- 3. Drawings Log Management
 - a. Archive documents and accurately maintain drawing logs
 - b. Post all addenda, request for information (RFI) responses, and change orders to drawings
 - c. Prepare drawing logs
- 4. Change Orders (CO)
 - a. Communicate changes with onsite superintendent and field leadership
 - b. Update change logs with proposals costs

- i. Review and update change logs with:
- 1. Construction Bulletins (CBs),
 - RFIs 2. Damages
- 3. GC and Owner Requests
- c. Send updated cost letters to customers / GCs
- d. Ensure approved COs are incorporated into the project plan
- 5. Agile Construction® Project Execution & Tracking, complying with ASTM E2691 including:
 - Capture/manage inputs into a. SIS® and JPAC®, such as Percent Completions, Change Orders, Accounting Hours, and Composite Rate
 - Conduct weekly job review b. meetings with the field and the PM to review progress, productivity, and obstacles
 - С. Communicate outputs and guide action based on JPAC® Productivity Charts, Trending, Projections, Composite Rate Trends, and SIS® reported obstacles onsite
- 6. Schedules
 - Track and update the project а. schedule
 - Monitor the project schedule b.

Create project status reports c. for project managers and stakeholders

The pace of construction projects continues to increase, so with rising expectations, trade contractors should always be thinking about their organizational structure and the strategic advantage of investing in the right resources and technology. How do you know when you may need a project coordinator? Can you see what's coming? It's useful to have the support of a PC to support scheduling and communication when:

- There are different teams working together that have not worked together before, using different communication and management systems.
- There is complex work that needs to be completed sequentially
- There are tight project timelines

To overcome these challenges, which can lead to an over constrained project manager, contractors can invest in introducing new roles and new technologies to their organization to better streamline coordination within their project delivery system.

In closing, when you think about who you depend on in your company to 'deliver the job' on time, with quality, and at or below cost, project manager comes to mind. With the addition of a project coordinator and potentially new technology helping with visibility of the work, you'll be setting the future of your company up for success! **f**

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