



Project Management - Your Architect is There for You



I have been a practicing architect for 30 years. Throughout my career, I have heard the terms “project manager” and “project management” thousands of times. Despite using these terms frequently myself, the actual definition of project management has always seemed a bit nebulous to me.

Perhaps this is because the term *project management* is used in almost every industry and as such, can have many different meanings.

OK. So let’s look at the words *project* and *management* separately in search of some answers. Some dictionaries define *project* as “a plan or proposal for accomplishing something”. A common definition for *management* is “the skillful or resourceful use of materials, resources and time”. Therefore, *project management* could be defined as

“the skillful use of materials, resources and time to accomplish something that has been planned”.

All right, so we have a loose definition of *project management* now let’s put it into a real world context and see if it holds up. Company ABC makes widgets. To increase efficiency and gain market share, the Company wants to retool its manufacturing base by installing new computerized machinery and equipment. So the plan is to upgrade equipment (the project), but in order to achieve specific goals; increase efficiency and gain market share.

So if there can be no project without specific goals, then our definition of *project management* should become:

The skillful use of materials, resources and time to accomplish planned specific goals.



In the case of Company ABC, it would be logical and appropriate for ownership to designate an in-house project manager, say one of its senior executives. A seasoned executive with a long track record in the widget industry would know how widgets are made, would be familiar with the latest advances in widget manufacturing equipment and would know the Companies’ labor pool to properly delegate various elements of the project.

Sounds good, but what would happen if Company ABC not only needed to upgrade its existing equipment, but also needed to double the number of widget machines and increase its staging, storage and shipping areas to handle a much greater volume of widgets? What if this dictated that they construct an addition to their building? In this scenario, the in-house project manager knows a lot about widgets, but probably knows very little about construction.



Company ABC needs to hire an architect. Now I can tell you from personal experience that in order to properly design ABC's building addition, an architect has to learn a lot about widgets and how they are made. The architect also needs to understand the work flow of ABC's plant and on a certain level, must understand the new equipment, its physical size, working clearances and power/utility requirements. A really good architect will delve even deeper to understand ABC's goals and its corporate culture so they can build flexibility and room for growth into the plan. In other words, a good architect is their client's strategic planning partner as well as their building expert.

In this scenario, the architect is in the perfect position to serve as project manager (PM) and in most cases does so instinctively based on their training. We are trained to define a problem, identify and prioritize the elements needed to solve that problem and then to organize those elements in a way that meets the clients goals/needs, all while staying on time and on budget. Now if that's not a definition of *project management* I don't know what is!

In our firm, we offer *project management* as a value added service because I have always felt that "I can't be responsible for something if I don't have control over it." Most good architects are "control freaks" and I mean that in the best way possible.

Projects are made of dependent tasks and independent tasks. A dependent task cannot occur "until something else happens first". By identifying all of a project's dependent tasks and placing them in chronological order you can establish the project's Critical Path. By putting timeframes on each dependent task, you establish the project's timeline/schedule which runs along the Critical Path. Think of the critical path as a line of dominoes. Each domino must fall before the next one can fall. When the last domino falls, the project is complete.

Independent tasks run on parallel paths to the Critical Path. The more parallel paths the PM can create, the shorter the project's timeline.

In the process of identifying dependent and independent tasks, the PM must also identify all Stakeholders who must either sign-off on critical decisions and/or provide critical data or deliverables which are milestones on the Critical Path. Stakeholders might include; department heads, vendors, suppliers and building/code officials.

In the case of Company ABC's project, department heads would have input into the space planning and work flow diagrams. Once the architect prepares the floor plans showing all rooms, spaces and equipment, the department head must approve (sign-off) the plan before the architect can proceed with more detailed construction drawings.





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The architect would also need to coordinate with ABC's equipment, data, telephone, security, rack/shelving and furniture vendors to insure that their specialties are properly located, oriented, supported and powered and that this information is integrated into the construction drawings.

Building/Code officials of course have a key role to play as the construction drawings must be filed with and approved by the local building department and related agencies having jurisdiction.

If ABC's building addition triggers the need for new gas, water, sprinkler or electric services, then the architect and their engineering consultants must coordinate and file with the applicable utility companies to insure that the new services are brought on line at the right time in the Critical Path so as not to delay the project.

So in summary, *project management* is a term that is sometimes universally used and can mean different things to different parties. However if your project involves construction, your architect is uniquely qualified to serve as your PM.....Your architect is there for you.



So, the job is designed, the construction drawings are done and the building agencies have granted approval. It's now time to identify and hire the last key Stakeholder, the General Contractor who will actually build the project. To see "what happens in the field" after you break ground, see this month's companion article "Managing the Construction Phase".