FOCUS on FACILITIES
Diocese of Cleveland Facilities Services Corporation

A Brief Discussion on Project Management

This month we are following up a couple requests from our readers asking to write more on the topic of project management. In the past we touched on project delivery, which is an integral part of construction project management, but this topic is far more diversified than that associated with construction.

Project management in the simplest terms is the process leading to a completion of an assignment or satisfying an assigned goal. The project management occurs and is applied to all parts of the business community facilitating the completion or achievement of projects by a team with its members in-house and often including members outside the office who may be consultants and/or contractors.

The process of project management includes a few time -tested quality control methods including Six Sigma introduced by Motorola and Lean e.g., lean engineering, lean manufacturing, etc. with both focused on reducing waste while improving the product. Each recognize that "as waste is eliminated, quality improves." That said, project management is a process guided by quality control striving to deliver a product, a project, or a process that will be achieved on-time and in-budget for a client, company, or business.

Before we can begin to address project management we need to focus in on one of the numerous project management categories that exist in business. The project management category we will select for our discussion herein will be based on the topic of this column, *Facility Management*.

A definition given for project management is described on the web site Project Management Institute (https://www.pmi.org/about) and that is "the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements." Here is where the project management team leader is given the title of project manager (PM).

Herein we are breaking down these categories beginning with "Knowledge" in project management and further breaking down the discussion to heating, ventilating, and air-conditioning (HVAC) with the need for a project manager (PM) to be knowledgeable of the numerous systems he or she will be responsible for at the job site(s).

The best place to go for information about HVAC systems is the American Society for Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 2020 Handbook, HVAC Systems and Equipment. There a reader can peruse the table of contents for the HVAC systems this PM of facility management has in the building(s). When this individual takes a walking tour of a facility he or she will probably need to refer to the Handbook table of contents for descriptions of the various equipment e.g., condensing boiler that makes up this PM's reviewing.

Integral with the knowledge of HVAC systems and its equipment is the PM's knowledge of the system

distribution e.g., 2-pipe hot water heating system, the terminal equipment and the automatic temperature controls associated with the primary boiler equipment and the terminal equipment. It is important to understand how and why these controls function e.g., 24-7 operation, occupied-unoccupied cycle, etc., and the way they were designed. This individual does not require being skilled in the actual operation of the systems, he or she needs to have an overall understand if they are to be proficient in project management.

The same can be said for PM knowledge of the scheduled maintenance for all the equipment that makes up the particular HVAC system. Having an overall understanding of the requirements involved in a technician or service contractor completing the actual work order tasks and its frequency noted on a maintenance work order is essential. This familiarity with equipment and recognizing that, like all equipment, there is an estimated useful service life for HVAC equipment will lead a PM to recognize facility management requires short term and long term planning. Short term is simply making sure the in-house or outsourced maintenance group performs regularly scheduled inspection and/or repair of equipment. The PM or a facility group should also be familiar with long range master planning of the HVAC system to assure the building has a reliable system for the areas it serves. This can lead to the PM being involved with capital project management of equipment/systems that has reached the end of its useful service life. (refer to January's column discussing *"Energy Retrofit and Retro-Commissioning"*).

Experience on the practical side of the facility PM should include touring equipment rooms and understanding the physical obstacles associated with operation, maintenance, repairs, removals, and capital construction projects. This skill embraces the "real-world" part of project management and being able to plan and overcome obstacles so that the task or project can be efficiently completed. Inherent with the practical side of the job description is the PM's ability to be mobile including the ability to climb ladders, step over obstacles, cross muddy construction sites, etc.

Certification for PM's has become very popular for individuals and companies hiring PM's. Similar to other post-nominal initials letters such as P.E. (registered professional engineer) after a person's name these letters indicate that the individual holds a position, academic degree, accreditation, etc. A popular post-nominal initials for project management is CPM certified project manager. Integral with achieving such certifications as CPM there is the requirement to pass a test that is intended to confirm the individual is knowledgeable/skilled in understanding the fundamentals, contracts, codes, etc.

The "soft skills" associated with project management, as well as other job categories include, but are not limited to being proficient in communication, both verbal and writing, time management, well organized, and being proficient at delegating tasks and responsibilities. The tools can vary based on the project management category, but all will most likely require having a cell phone, computer and being skilled in the use of computer software e.g., Microsoft Office, and be willing to travel. One cannot be a PM sitting behind a desk all day.

The technical skills of a PM are to be able to first, manage themselves being proficient fulfilling the job description. This also requires one to be efficient and effective with report writing whether it is project related or it is associated with the project management department and the need to draft annual reports and budget. Next the PM needs to be able to work with others and manage individuals as it pertains to projects. Working with others also includes being efficient and effective at managing meetings in the office and at a project site.

In summary, a PM, responsible for project management in any category requiring an individual to lead will be required to be knowledgeable, with skills necessary to fulfill the job description and the project at-hand. This also requires the PM to have the tools necessary to complete the work and the techniques to achieve project activity success.

For more information:
facilities@dioceseofcleveland.org

Facilities Services Corporation
Catholic Diocese of Cleveland