2014

Construction Management Best Practice

Construction Management

We look at 10 key business practices that deliver real added value. The aim is to get construction activity to flow through the elimination of factors causing delay or disruption.

Renatus Engineering LLC

Building A Better Community

TOC

TABLE OF CONTENTS

SUMMARY OF BEST BUSINESS PRACTICE

Implementing best practice consistently increase profits, increase customer and employee satisfaction, improves safety and productivity and reduced environmental impact. We look at 10 key business practices that deliver real added value. The aim is to get construction activity to flow through the elimination of factors causing delay or disruption. It has been estimated that 30-40% of construction activity does not add value for the client.

WE HAVE 10 KEY BUSINESS PRACTICES:

1. Procurement,
2. Partnering,
3. Risk Management,
4. Value Management,
5. Sustainable Construction,
6. Benchmarking,
7. Supply Chain Management,
8. Whole Life Costing,
9. Health and Safety,
10. and Lean Construction.

WHAT IS BEST PRACTICE?

Best Practice is the knowledge that supports examples of excellence. We can take this knowledge, share it and implement it throughout the construction industry. Over the last 10 years there has been a dramatic change in the way construction activity is being undertaken. This is not only in the form of new technology, but also in the way that construction projects are procured and managed. This new thinking has been very successfully applied in other industries throughout the world. Our goal is to identify and apply these Best Practices.

WHAT'S IN IT FOR ME?

We are all more demanding and more discerning than ever before – wanting everything better, faster, cheaper, safer and easier. Increasingly informed clients are looking for companies that are demonstrably better – more knowledgeable, experienced and progressive – to consistently meet their business needs.

Understanding and using recognized best practice in construction provides our organization with the opportunity to fully meet those business needs and make increasing profits to reinvest in our people, products and processes, or distribute to our sister organizations. Companies embracing best practice achieve better client satisfaction, happier employees, safer sites, reduced environmental impact and consistently make 10% more profit than those that don't.

PROCUREMENT

Procurement is the process of establishing the most appropriate method of managing the construction project and selecting the best team to design, deliver and sometimes operate the required facility.

Modern procurement methods emphasize the need to select those companies that can work effectively in a collaborative relationship and who understand and practice the principles of "Partnering". New forms of contractual arrangements seek to get all key parties to work together as early as possible to ensure the effective delivery of a project.

We are strongly in favor of the newer forms of procurement such as Design & Build, Private Finance Initiative and Framework Agreements for all but the most simple of construction projects. It is also recommended that an Integrated Project Team partnering approach is also adopted within these contract forms.

PARTNERING

A partnering project has the following characteristics: an agreed set of mutual objectives, work undertaken in a spirit of trust and co-operation, an agreed problem resolution procedure, open book pricing, and a commitment to continuous improvement.

Partnering is now widely used in many aspects of the construction industry. A number of forms of contract have been specifically written, setting out a framework in which the parties to a partnering project are to work.

RISK MANAGEMENT

We manage and mitigate risk primarily thru the design process, since financial allowance is made for all residual risk items. This ensures that risk is not ignored. Instead a decision can be taken as to the best approach in reducing the cost of these risks. Our risk register is similar to type and format of the FCA matrix. SAMPLE RISK REGISTER

VALUE MANAGEMENT

The value management process involves collaboration with the team responsible for design and delivering the project, and ideally includes end-users.

The first step is to clearly identify value for the client in terms of need, business benefits and priorities. Next will be the identification and evaluation of options – this forms part of the value engineering process. Selected options will then be assessed in terms of their cost, risk and extent to which they contribute to satisfying the client's business needs.

SUSTAINABLE CONSTRUCTION

Sustainable construction cohesively addresses the triple bottom line – the social, economic and environmental performance of the industry. WE USE LEED MATRIX, INFUSED WITH A CULTURAL, PHYISCAL AND PRACTICAL UNDERSTANDING OF THE AREA.

BENCHMARKING

Measuring and comparing your performance against others, and then using lessons learned from the best to make targeted improvements. It means knowing the answers to the following questions "Who performs better?", "Why are they better?", "What actions do we need to take in order to improve our performance?"

SUPPLY CHAIN MANAGEMENT

Material suppliers, component suppliers, manufacturers, distributors and intermediaries, installers, trade contractors, lead contractors, designers and the client organization. Supply chain management is the central issue for our clients and company. This is because it offers the prospect of making significant cost savings and improving value by enabling our company to work more effectively with others across the entire supply chain. We achieve this by having one highly qualified individual to oversee projects (project engineer)

WHOLE LIFE COSTING

Initial capital cost of creating the building plus the cost of maintaining and servicing the building over its whole life. Accomplished thru the design process.

HEALTH & SAFETY

There are two key issues with regard to health and safety in the construction industry. The first is respecting people's rights to be protected against risks that affect their safety and long-term health. The second is that construction sites that are effectively planned and managed are more productive and profitable as well as being safe.

Health & Safety Checklist is:

- Access on site
- Welfare facilities
- Scaffolding
- Ladders
- Roofwork
- Excavations
- Manual handling
- Asbestos
- Traffic vehicles
- Plant

- Tools and machinery
- Hoists
- Emergencies
- Fire
- Hazardous substances
- Noise
- Hand and arm vibration
- Protecting the public
- Electricity & other services

LEAN CONSTRUCTION

"Lean" is an approach to managing production activity. It first focuses on understanding what value means for the client and then seeks to systematically reduce or remove any processes that add cost but do not add value. The five principles of Lean:

specify value from the customer's perspective;

identify and integrate the processes that deliver value;

make value flow by eliminating bottlenecks and disruption;

produce only what is wanted when it is wanted;

pursue perfection through continuous improvement

This approach has been widely adopted in a range of industry. Examples of Lean processes that will benefit from "Lean" construction: include waiting for information and materials, reworking due to defects, double handling of materials, unnecessary movements around site due to poor site layout and access arrangements, and compulsory competitive tendering.