

Research on construction management in construction project management

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Abstract: With the continuous acceleration of China's economic development and urbanization process, the construction industry has obtained unprecedented opportunities for development, and the construction units want to improve their own management level in an invincible position in the market. At present, however, our country construction enterprises of engineering management there are many shortcomings, such as the construction organization design, construction schedule, project quality, there are many problems, which requires enterprises to strengthen the attention of the construction engineering construction management control work, optimize the construction organization design, so as to improve the level of construction schedule and quality control work. Only in this way can we further improve the market competitiveness of China's construction industry.

1. Introduction

With the rapid development of social economy, the number of construction projects is gradually increasing, and the competition in the construction industry is becoming more and more fierce. In order to stand out in this fierce competition, we must improve our own management level. Construction management is the core link, but also the key to ensure the quality and service life of construction engineering. Therefore, enterprises must pay attention to the construction management work.

2. Preparation works before construction

Construction preparation is the premise and foundation of construction management of construction projects. Only with good construction preparation can the quality of construction management be effectively guaranteed. First of all, the enterprise should prepare the construction organization design according to the actual situation, in the preparation process of the construction drawings should be carefully analyzed and studied, focus on the difficulties and key contents in the design drawings, and fully consider the influence of various factors, to ensure the rationality and scientificity of the construction drawings design scheme. Secondly, the enterprise should carry out a

comprehensive inspection and acceptance of the whole project according to the construction drawings, and solve the problems existing in the project in time. Thirdly, enterprises should pay attention to the selection and management of materials, to avoid affecting the quality of construction projects caused by material quality problems. Finally, enterprises should strengthen the management of human resources, organize professionals to conduct comprehensive training and education for the technical personnel and management personnel in the project, and ensure that all personnel have a high level of professional skills. At the same time, the work tasks of the construction personnel should also be reasonably arranged according to the actual situation of the construction project, so as to ensure that each employee can be reasonably allocated.

2.1 Quality management of construction projects

Construction engineering quality management refers to the comprehensive control of the relevant factors involved in the project, and the reasonable evaluation of all the influencing factors, to ensure the smooth completion of the project. Therefore, enterprises must strengthen the management and control of engineering quality, only in this way can ensure the quality of construction projects to meet the relevant standards. First of all, enterprises should pay attention to the selection of the construction plan and construction technology, reasonably formulate the construction plan, and fully consider the impact of the construction environment and conditions, to ensure that the construction plan can meet the actual needs. Thirdly, enterprises should pay attention to the selection of construction equipment, to ensure that the normal operation of the equipment can effectively improve the quality of the project. Finally, enterprises should strengthen the training of professional skills of technical personnel, to ensure that all personnel can master the required professional knowledge and skills. At the same time, we should also strengthen the education and training of employees, and cultivate their good working attitude and sense of responsibility, so as to effectively ensure the quality of construction projects.

2.2 Project cost management

Construction project cost management is the key to ensure the economic benefits of enterprises, but also an important means to ensure the smooth construction of enterprises. The cost management in the construction engineering project needs to start from each link, mainly including the project bidding, construction organization and project completion and other links. In the bidding stage of the project, the project should be comprehensively investigated, the bidders should be reasonably selected according to the specific situation of the project construction, and the bidding plan should be scientifically formulated according to the actual situation of the enterprise. In the construction design stage, it is necessary to design the construction scheme according to the actual situation of the project to ensure that each link can achieve the expected effect. In the construction organization stage, the construction team should be organized scientifically organized according to the actual situation of the project, and the construction sequence should be reasonably arranged according to the site requirements to improve the efficiency of the project construction. In the completion stage of the project, the whole project needs to be subject for careful acceptance and summary, and the actual economic benefits of the whole construction project should be reasonably analyzed and evaluated according to the actual situation. Only through the strict control of each link can we effectively reduce the project cost and improve the economic benefits of enterprises^[1].

3. Material management

Material management is an important part of construction engineering construction management,

and the quality of material management work directly affects the construction quality. Therefore, the construction enterprises must strengthen the management and control of materials. First of all, enterprises need to establish a sound material procurement system, strictly examine the qualification, credit and strength of material suppliers, and select the material suppliers with good reputation and complete qualifications through the investigation of material suppliers. Secondly, enterprises need to strictly control the quantity and amount of materials to buy, and cannot purchase and buy some materials with high price or substandard quality at will. When enterprises buy materials, they also need to sample and check each material to ensure that each material purchased is a qualified product. In addition, enterprises also need to pay attention to the reasonable storage and management of materials. Because all kinds of raw materials used in construction projects have high water content, which leads to the construction site is prone to damp phenomenon. Therefore, enterprises must pay attention to moisture-proof when storing the raw materials used in construction projects. Finally, enterprises need to pay attention to the inspection and testing of raw materials to ensure that the quality of the raw materials purchased reaches the standard. In short, construction enterprises in the procurement and storage of all kinds of raw materials used in construction projects must pay attention to the quality of raw materials to strictly check.

3.1 Construction organization and design

Construction organization design is an important link in construction management and also an important foundation to guarantee construction quality. In the construction organization and design of construction engineering, it is necessary to focus on solving the problems of construction progress, cost control and quality control of construction engineering. In the construction organization and design of the construction project, the problems to be solved include: first, the enterprise needs to effectively control the construction progress of the construction project in strict accordance with the relevant national codes and standards, to ensure that the construction progress meets the relevant regulations and requirements; second, enterprises need to strengthen the management of construction engineering cost control work, through the establishment and improvement of the cost control management system to achieve effective control of construction engineering cost; third, enterprises need to strengthen the management of construction quality work, through the effective analysis of the factors affecting the quality of construction projects, to develop a reasonable construction scheme; fourth, enterprises need to pay attention to the management of construction engineering quality control work, through the effective analysis of factors affecting the quality of construction engineering, to develop a reasonable quality control scheme; fifth, enterprises need to pay attention to the quality inspection management of construction projects, through strengthening the quality inspection of construction projects to find problems in time, and take effective measures to solve the problems.

3.2 Control of the construction process

The construction management control in the construction process of construction engineering is the core content of the whole project construction management, and it is also the most key link in the whole construction process. Therefore, enterprises need to pay attention to the control of the construction process to ensure the quality of construction projects. First of all, enterprises need to strictly follow the relevant norms and standards to construct the construction project. In the process of construction, enterprises must be strictly in accordance with the relevant national laws and regulations to check and accept each process, to ensure that each process meets the relevant norms, standards and requirements. Secondly, enterprises need to strengthen the supervision and management of all stages of the construction project. In each stage of the construction project, it is

necessary to strictly inspect each process. Only the supervision and inspection of each stage can ensure the overall quality of the construction project to reach the standard^[2]. Finally, enterprises also need to pay attention to the control of the construction progress and quality of construction projects, to ensure that each stage can be completed on time and with good quality.

3.3 Project quality control

Therefore, the management and control of the construction process is an important means to ensure the construction quality of the construction project. Management control in the construction process mainly includes the project cost control, quality control and progress control. The management of project cost is to ensure that the construction project can be carried out normally, while the quality control is mainly to ensure that the construction project can be completed within the specified time, and the progress control is mainly to ensure that the construction project can be delivered on time. Therefore, in the construction process, the management and control personnel need to train all the relevant personnel, so that they can master the relevant knowledge and skills, and ensure that each work is completed within the specified time. In addition, in the construction process, the management and control personnel also need to strictly supervise and manage each construction link. On the basis of ensuring the safe construction, each construction link makes reasonable arrangements to ensure that the construction project can be delivered on time. Therefore, enterprises need to establish a perfect quality assurance system and supervision and management system in the construction process. In addition, enterprises also need to implement the quality management work to the specific responsible person, and strengthen the education and training of construction personnel. In construction engineering, management and control personnel need to formulate perfect quality plan and implementation plan, and organize the implementation. At the same time, it is also necessary to establish and improve the quality management system, responsibility system and reward and punishment system, so as to improve the enthusiasm of enterprise employees and ensure that the construction projects can be delivered on schedule. In short, construction engineering management is a complex and long process, and only by organically connecting each link can enterprises achieve the effective control of the overall quality of construction projects.

4. Quality control

Quality control is the core link of construction management, which runs through the whole project construction process and plays an important role in the whole project construction. If the construction units want to improve the quality of the project, it is necessary to strengthen the control of the construction quality. First of all, we should pay attention to the management and control of raw materials. Enterprises should strictly check when purchasing raw materials^[3]. At the same time, we should also strengthen the testing of the quality of raw materials, and the test results should be taken as the basis for judging whether they are qualified. Secondly, it is necessary to do a good job in the preparation before construction. First of all, the drawings should be reviewed, and then draw detailed construction drawings according to the drawings, and mark the key points, key points and key points and so on on the drawings. Finally, do a good job of concealed engineering acceptance work, the relevant acceptance documents and materials are sorted out and handed over to the relevant personnel. At the same time, it is also necessary to strengthen the supervision and management of each process in the construction process, and to conduct quality control education and training for the site construction personnel.

4.1 Project progress

In the construction management of construction engineering, progress control is a very important link, which directly affects the overall efficiency of construction. In the specific construction process, the construction unit should reasonably plan the progress of the project, and in strict accordance with the design drawings and construction scheme for the construction, but also to ensure the close connection between each process. In this process, the construction unit should also strengthen the training and management of the staff, to ensure that they have a good professional quality. In addition, it is necessary to do a good job of progress control supervision work, and regular inspection and acceptance. At the same time, we should also do a good job in technical management to ensure that the project construction is carried out in accordance with the design scheme. In the construction process, the construction unit should also develop a sound construction management system, and according to the actual situation and the actual needs to develop a reasonable schedule. In the actual construction, detailed records of the project should be done, and the project progress should be checked regularly checked according to the records. Only in this way can we ensure that the project progress meets the design requirements. At the same time, we should do a good job of on-site supervision and management, timely find and solve the problems in the process of construction^[4].

4.2 Project quality

Before the construction of the project, the construction unit shall make technical disclosure and safety disclosure to the construction personnel, and clarify the construction requirements. Secondly, in the construction process, it is necessary to develop a perfect quality control plan, strict supervision and management of each process, and make relevant records. At the same time, we should strengthen the quality management and supervision of the project, only in this way can we ensure that each process can be carried out in accordance with the construction requirements. At the same time, we should do a good job of testing, testing the quality of each process in the project, and do a good job of relevant records. Finally, it is necessary to strengthen the education and training of the site construction personnel to enhance their quality awareness. In addition, the project should be inspected regularly, through the inspection to understand the quality of the project. Only in this way can we ensure that every process can meet the prescribed standards and ensure the smooth completion of the project.

4.3 Project cost

Project cost is the most important link in the construction management, which not only determines the economic benefits of the construction unit, but also is related to the construction quality of the whole construction project. In the whole process of construction project management, the project cost plays a decisive role, it is an important basis for the capital budget. The construction unit in the construction of the project, to reasonably determine the project cost according to the specific situation, to avoid the phenomenon of exceeding the budget. In the actual operation process, enterprises can use a variety of valuation modes for quotation, such as the bill of quantities valuation, information price, etc., these several ways are commonly used valuation methods. Enterprises in the determination of the project cost, to ensure the accuracy and authenticity of the data, to the bill of quantities as the main basis, but also according to the quota of the cost calculation. In addition, can also combine the market, in accordance with the relevant provisions to adjust the price. Finally, the cost of the project can also be determined through the way of market inquiry. Enterprises in the specific implementation should be based on the actual situation, strictly control

the cost budget, so as to achieve the purpose of improving economic benefits.

5. Cost control

Many costs will occur in the process of engineering construction, including material cost, machinery and equipment cost, etc. In the construction of construction engineering, each construction enterprise will make the corresponding construction plan, and the procurement and use of materials is one of the most important links in the construction. Many construction enterprises have many problems in material procurement, such as non-standard procurement channels, poor material quality and so on. The emergence of these problems will increase the production cost of enterprises and affect the economic benefits of enterprises. Therefore, construction enterprises need to strengthen the management of material procurement work, to ensure that all departments can cooperate with each other. If the material procurement work is not in place, it will bring a certain impact on the construction, increase the cost of the enterprise. The use of materials in the construction of construction projects is also very critical, which requires enterprises to formulate a perfect management system, so that enterprises can choose the appropriate raw materials according to the market conditions. At the same time, it is also necessary to conduct a scientific and reasonable storage and management of the raw materials, to ensure that the raw materials can be used reasonably and effectively. If there is a waste of materials will cause unnecessary economic losses, and even affect the overall quality of the construction project. Therefore, construction enterprises need to establish a perfect cost management system and cost control system, and constantly optimize and improve the relevant system, and strictly implement the cost control measures. Construction personnel in the process will produce a lot of expenses in the construction process, such as: labor costs, material costs, etc. Therefore, it is necessary to strictly control and manage the labor cost in the construction of construction projects. At the same time, the construction scheme and technical measures should be continuously optimized to reduce unnecessary labor costs. Construction personnel need to complete the construction task in strict accordance with the construction plan and technical measures to reduce unnecessary economic losses.

6. Conclusion

With the continuous development of China's social economy, the number of construction projects is more and more, which makes the construction units face a huge competitive pressure. Enterprises want to be in an impregnable position in the market must strengthen the construction management, through the establishment of construction management control system, construction planning and construction organization design, improve the professional quality of construction personnel measures to optimize the project construction management control work, so as to effectively improve the quality of the construction project and the economic benefit of the enterprise, promote the sustainable development of the construction industry in China.

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