# Application Analysis of Quality Control in Urban Construction Project Management

# Wei Zhang\*

Xinzhou City Construction Integrated Service Centre, Xinzhou, 034000 Shanxi, China

\*Corresponding Author

Keywords: Urban Construction; project; management; quality control

**Abstract:** Whether the quality of urban construction engineering is excellent or not directly affects the safety and use of the building after the completion. The safety and quality of the project is related to people's life and well-being, as well as the safety of life and property. Therefore, all the time, strengthening the quality control of urban construction projects can reduce many rework and safety threats, which is conducive to improving the quality and level of construction. This is one of the important management tasks of the current management departments and managers. Construction engineering management core is mainly around the construction engineering each link, production, and then combine certain quality management theory and practice method to carry out the supervision work, strict constraints on construction work process and behavior, quality management work on time, make each construction link can complete according to the expected requirements, improve the quality of construction project management, mainly discusses the management instructions and management details and contents, and finally puts forward some feasible countermeasures and methods.

## 1. Introduction

In recent years, with the transformation and continuous development of socialist economy, the gap between urban and rural areas is narrowing day by day. With the rapid and in-depth advancement of urban-rural integration, China's construction industry has achieved very remarkable development. It occupies an important position in the social economy, and its role is becoming more prominent. The development of the construction industry has an important role, especially if it can improve the experience of architectural design, construction and management. Of course, urban construction project management to design many links, so it is necessary to develop different management plans based with different actual situations. In addition, the construction unit should further strengthen the safety management, at the same time strengthen the construction management, in order to improve the construction team and quality, at the same time to reduce the risk of problems, so as to ensure the quality and level of the project.

# 2. Project management definition and strengthen the importance of urban construction project management

# 2.1 Engineering project management definition

Conventionally, project project management pertains to enterprises dedicated to project management, entrusted by the proprietor to execute their responsibilities according to predetermined terms and signed contracts, and conduct the entire procedure of the organization and execution of the project on behalf of the proprietor. Notably, there exist also some enterprises with their own construction organizations, to partake in the construction and administration of various engineering affairs, which also falls within the primary domain of project management. Engineering project management enterprises typically do not engage in the engineering construction, design and

exploration, but can contribute to the surveillance and management of this aspect in accordance with the pertinent contract agreement, and fulfill the pertinent items in the contract.

#### 2.2 Strengthen the importance of urban construction project management

As we all know, engineering project management is a one-time construction task. After completion, it is basically finalized, and important and major rework construction work cannot be carried out in the later stage. If there is a problem in an urban construction project, it will be difficult to have the opportunity to correct it. Therefore, in the process of engineering construction projects, every construction link must be strictly controlled, quality and safety management must be strengthened, and construction quality can be improved. This is conducive to achieving high standards and requirements for construction, improving construction economic efficiency and management level, and playing the role of a supervision mechanism to improve the construction level and efficiency of the entire construction project. The importance of engineering project management in the process of urban construction can be mentioned. It is important to improve the quality of construction, reduce safety accidents and production problems, achieve established construction goals and task requirements, prevent risks and coordinate different construction links, strengthen construction quality control, restrain construction teams and personnel to carry out construction work, and improve the flexibility and order of internal operations. Construction in accordance with relevant construction procedures and work requirements, comply with social laws and construction systems, and complete project construction according to quality and quantity.

#### 3. Principles of construction engineering quality management

Construction engineering quality management involves many contents. As the name suggests, it refers to the detailed management of the whole process of construction projects during the construction process, so as to ensure that the construction quality does not have problems and can be maintained within a certain standard range. In the process of such management, it usually involves multiple different construction stages, including: pre-construction, mid-construction and post-construction tracking management, and also includes technical management, risk prevention and many other construction management contents. In the corresponding technical management work, it can usually be controlled from the following three principles to continuously improve the quality of construction, improve the quality of construction and management efficiency, as follows.

First, the principle of authenticity refers to the investigation of specific operations such as construction and risk prevention in the process of construction project management, and then timely and effective coordination and improvement of the external environment that may occur in combination with the actual situation. The purpose is to ensure the final quality of construction projects <sup>[1]</sup>.

Second, the principle of efficiency, in the process of construction, obtain certain economic benefits and achieve construction goals. On the basis of adhering to the management of ensuring the quality of construction projects, the principle of efficiency is taken as the principle.

Third, the principle of safety. In the process of construction of construction enterprises, safety construction problems occur from time to time. However, as long as the safety management is properly controlled, safety risks and hidden dangers can be eliminated. Relevant literature studies have shown that in the process of construction, with the increasing difficulty of construction technology, safety management risk factors will gradually increase, and the probability of safety accidents will also increase. Once a safety accident occurs, it will cause irreparable harm to the construction personnel, and it will also affect the implementation progress of the entire project, and will inevitably damage the reputation of the project. Based on this, in order to fully ensure the smooth progress of construction projects and to meet the safety and quality requirements and standards of construction, safety should always be adhered to as the main principle.

#### 4. Quality control problems in the process of urban construction project management

#### 4.1 Personnel Management of urban construction projects

In the process of urban construction project management, there are many factors that cause the project management process control to be imperfect. As the relevant supervision and management personnel do not strengthen the management of the entire construction, among them, some supervisors are negligent, which leads to the lack of comprehensive supervision of the project, unable to control the entire construction project more effectively, and unable to supervise the construction behavior and links of the construction personnel, resulting in frequent quality problems of the construction project, and more directly affecting the progress of the construction project. On the one hand, because the process of project construction has not established a perfect construction responsibility system that meets the construction needs, the management responsibilities of the construction personnel cannot be clarified. Once there are some liability and safety accidents in the construction process of the construction project, the relevant person in charge will shirk each other's work responsibilities back and forth, and there is a unclear division of responsibilities, which will inevitably directly affect the normal construction of the construction project, wasting a lot of time and energy. Furthermore, it is necessary to pay attention to the management and control of materials during the construction process. If the construction materials exceed the relevant control scope, they must be dealt with, because the construction materials are the foundation of the entire project, and a lot of attention must be paid to them, and the management of construction materials is lacking. On the one hand, it will affect the overall project quality. In this way, it will inevitably lead to increased construction risks, and at the same time, it will have a great impact on general construction. In addition, during the construction, some project managers do not fully perform their job responsibilities. Project managers will only go to the construction site to inspect when necessary. However, they do not have a deep understanding of the specific construction project. Even if there are some construction safety hazards, they only provide some guidance, but they do not continue to follow up. They do not know whether the safety hazards have been solved in the follow-up. The responsibility and safety awareness are relatively weak.

#### 4.2 Construction materials management is not in place

As we all know, the process of urban construction requires the use of a large number of construction materials. This is because building construction materials are the main foundation of urban construction construction. Only by strengthening the construction management of building materials can we effectively promote the efficiency of engineering construction and ensure the quality of construction. Whether there are quality problems in the materials directly affects the quality of construction. However, in the process of managing construction materials in reality, some project supervisors and managers have problems in the procurement and management of construction materials, such as: poor quality, not meeting construction needs, etc. In addition, due to improper management, relevant managers have not fulfilled their duties, and some construction materials have lost their construction value due to rain or humid air, exposure, etc., and have to be re-purchased, resulting in a large number of costs.

#### 4.3 Construction risk management

In the construction of construction projects, risks are everywhere, and this is a problem that is difficult to avoid. Of course, risk issues are not unavoidable. For a construction enterprise, in the process of construction, if it cannot comprehensively prevent and control some risks in the process of project management, then once a risk accident occurs, it will inevitably bring a lot of losses to the production and construction of the construction enterprise.

First, construction project construction management risk analysis will be carried out before construction, but some construction units do not pay more attention to construction construction analysis due to carelessness or negligence during construction, which will lead to construction enterprises having to bear many construction risks in the process of management.

Second, as the project management personnel did not follow up in a timely manner, did not use their professional knowledge to analyze, put forward some improvement plans in a timely manner, and did not demonstrate the possible problems in the construction, that is, the construction feasibility analysis, which led to the final construction quality problems. This reflects to some extent that the relevant management personnel did not give full play to their safety responsibility management responsibilities. At the same time, there was a mentality of sluggishness in the process of work, weak safety awareness, and poor work style. At the same time, there was no in-depth discussion and analysis of the construction feasibility. It was not until after the construction of the project that construction safety problems were found, the quality was not up to standard, and it may face the situation that the review could not pass, or a large area of rework and repair was required, which led to a large number of costs and brought many problems to the construction work.

# 5. Quality Control in the process of urban construction project management problems and countermeasures

#### 5.1 Strengthen the whole process of project control

In view of the above problems, first of all, it is necessary to strengthen the control of the whole process of the project project. During the actual management process, attention should be paid to the control of different links, and some work links can be split into management work. Therefore, in the process of construction and construction, new project management methods can be adopted to control, and new project management methods can be adopted before, during, and after the fact to solve the project construction management problems. Thinking is carried out, and each different link in the construction and construction must be interlinked. To prevent the existence of areas similar to the "vacuum" of responsibility, a construction management system consistent with the construction and production of the project should be established in combination with the relevant circumstances to meet the needs of the project construction, and at the same time, it is conducive to improving the work efficiency and construction needs of the staff. When the construction of a construction project is carried out, the construction management team and leaders should effectively establish a complete and strict construction responsibility management system, clarify the reward and punishment regulations and punishment measures for relevant personnel and construction personnel. At the same time, some irresponsible construction management personnel should be strictly punished, so as to truly ensure that the construction In addition, it is necessary to vigorously establish the opposite engineering construction cost management and accounting process and system, and strictly calculate the funds consumed by the project during the construction process, all of which have a basis. Generally speaking, when the process of engineering construction, the construction process should be fully combined with the pre-construction plan to carry out construction, and the construction should be carried out in a gradual and orderly manner <sup>[2]</sup>. Of course, we can't blindly catch up with the construction efficiency and ignore the control of different links. We should combine the actual needs and take into account the quality of construction. Of course, managers should strengthen the management and control of project costs in the process of supervision, and pay attention to the efficient connection of engineering tasks in different construction stages. For example, in different construction stages, faults should not occur at the junction. When a construction stage task has been successfully completed, the next project construction plan should be planned in advance, and careful design and management should be done. In addition, the relevant managers in the process of urban construction should pay attention to the standardization of work. If you want to promote this aspect of construction work, then you must clarify the scope of work of the supervisors and clarify their job responsibilities and tasks The professional ability, professional ethics and management responsibility of the supervisors are very important. In the process of construction, the supervisors must focus on nothing else, restrain their work behavior, improve their work enthusiasm and ability, and follow up on the relevant work in a

timely manner. When the relevant preparations are completed in the later stage, they must be comprehensively inspected, and no sloppiness should be tolerated. If any safety hazards are found, or areas that are not perfect, they should be followed up in a timely manner. At the same time, corresponding countermeasures should be formulated in combination with the actual situation, and solutions should be proposed. If there are unqualified areas in the construction process, they should also be corrected in a timely manner. Strictly carry out supervision of the construction work, and prompt the relevant construction units to give plans in a timely manner. The improvement plans should also be tracked and understood in a timely manner to improve the quality of construction.

### 5.2 The management of construction materials should be strengthened

In the process of actual construction and construction, relevant managers must improve their sense of responsibility management, fully implement the work responsibilities of funds, and carry out construction work in depth, deepen the work management mechanism, and promote the orderly progress of various management work. To improve the efficiency and quality of construction, we should strengthen the management of construction materials and materials, so as to continuously improve personal work enthusiasm and material safety management awareness. For the procurement management of construction materials, we should strengthen the review of the list of materials. We should call for consultation one by one to inquire about the quality and price of construction materials to ensure that these construction materials can meet the construction requirements. They are not unqualified or unsatisfactory construction materials. When the construction materials are purchased, the construction materials must be accepted and confirmed before they can be unloaded and transported to the warehouse. For the preservation of construction materials, the supervision and management of construction materials should be strengthened, especially the comprehensive assessment must be carried out in combination with the construction environment and preservation conditions to understand whether it is suitable for preservation of construction materials, and the necessary preservation and protection work should be done well. According to the seasonal characteristics, different adjustments should be made, and different preservation plans should be reasonably formulated. The relevant personnel who have improper preservation of construction materials should be held accountable and punished accordingly, so as to play a punishing role and deter other managers and preservation personnel to ensure that construction materials are best preserved.<sup>[3]</sup>.

## 5.3 Risk control and management should be strengthened

The content of engineering project management is very complex, and there are many contents of design, construction and design management. Any management task management. In engineering construction, personnel from all aspects need to be temporarily organized into a team, and all personnel are required to comprehensively use professional and technical, economic, legal and other disciplinary knowledge to work in unison. Therefore, in the process of risk control and management, it is necessary to strengthen the construction construction and demonstration analysis before construction, and conduct serious analysis. It is necessary to actually survey the project site and understand the requirements of all aspects of construction and construction. In addition, before construction, it is necessary to strengthen the sorting and analysis of information to prepare for the subsequent construction work and provide more technical reference for decision makers to formulate corresponding countermeasures. Secondly, the relevant construction suggestions should be reasonably adopted, and the construction quality should be given top priority. Always insist on doing a good job in project construction and construction to improve the quality and efficiency of construction. At the same time, the opinions put forward are analyzed, adjusted and improved. When preventing investment risks, funds can be allocated in blocks, stages and batches, which can greatly reduce some unnecessary losses and reduce the incidence of construction quality risks.

### 6. Conclusion

The construction problem in the process of urban modernization construction is one of the key contents of project engineering management. If the management problems in this aspect are ignored, it will directly affect the later construction quality. Construction quality is a major core of urban construction project management, which can significantly improve the economic benefits and living environment of urban construction, and also has a relatively large impact on the safety of people's lives and property. Therefore, it is necessary to strengthen the quality control in the process of urban construction project management. It is necessary to improve the construction quality and whole process control of engineering construction, implement the responsibility system and management methods, and take the final quality of project construction as the construction focus. All construction work will be carried out around this focus to improve the quality of construction.

## References

[1] Hai Yuan. Analysis of quality control problems in construction management[J]. Mass standardization, 2021(2):2.

[2] Zhou Xiaoqing. Analysis and discussion on quality control in construction management[J]. Brick, 2021, 000(003): 138-139.

[3] Wang Xiaoyan, Xie Dan. Analysis and study of engineering budget in construction[J]. Business 2.0(economic management), 2021,000(016) : p. 1-1.