



# Discussion on the Development Status and Optimization Strategy of Civil Engineering in China

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**Abstract:** In recent years, with the continuous improvement and optimization of the level of economic development, the people's requirements for the quality of life continue to increase, which effectively promotes the development of civil engineering in China. In this process, a large amount of data shows that at this stage, there are still some problems to be improved in the development of civil engineering in China. Based on this, in order to further realize the improvement and optimization of the comprehensive quality of civil engineering projects, researchers combined with the development of civil engineering projects to analyze and explore. Taking civil engineering as the starting point, this paper conducts an in-depth analysis and exploration of the current development status of civil engineering in China. At the same time, it proposes corresponding optimization strategies to guide civil engineering construction units to further realize reasonable management and control of the level of engineering construction. so as to lay a solid foundation and guarantee for the improvement of the comprehensive quality of civil engineering projects.

**Keywords:** Civil Engineering; Development Status; Key Points of Work; Optimization Strategy

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Researchers point out that under the impetus of economic development, China's civil engineering field will face huge development opportunities. On this issue, a large amount of data shows that in recent years, with the continuous deepening of the level of urbanization, the comprehensive level of civil engineering projects in China has been effectively increased. Among them, the most prominent performance is that the number and scale of civil engineering projects have shown an expanding trend. However, in this process, by analyzing a large number of civil engineering construction conditions, the researchers said that at this stage, China's civil engineering still has certain deficiencies in the development process, which limits the further improvement of the overall quality of civil engineering projects. Upgrade and optimization are not conducive to the reasonable development of civil engineering projects in China. In this regard, through the analysis of civil engineering project data, the relevant staff stated that in order to reasonably achieve the improvement of the comprehensive level of China's civil engineering industry, relevant departments should actively reflect on the current status of civil engineering development and formulate corresponding optimization strategies, so as to lay a solid foundation for the development of comprehensive quality of civil engineering projects.

## 1. The development status of civil engineering in China

### 1.1 The lack of professional capabilities of the civil engineering team limits the development of civil engineering construction

In the process of construction of civil engineering projects, as the main implementers of the project, the professional ability and comprehensive quality of the construction team personnel often have a certain impact on the

quality of the project. However, at present, due to the continuous expansion of the number and scale of civil engineering projects in China, the number of relevant practitioners is lacking. Based on this, some civil engineering construction enterprises often reduce the threshold to achieve a reasonable expansion of the staff in the process of selecting and hiring construction personnel. Based on this problem, the overall quality of the civil engineering staff in China has weakened, which is not conducive to the guarantee of the quality of civil engineering construction. At the same time, due to the lack of professionalism, it is often difficult for construction workers to strictly follow the relevant professional requirements during the construction of civil engineering projects, and some workers lack a reasonable understanding of the value of civil engineering projects, which leads to their daily work. The lack of corresponding work enthusiasm is not conducive to the reasonable development of civil engineering construction.

## **1.2 The lack of civil engineering work management system hinders the reasonable execution of civil engineering work**

A large amount of data shows that at this stage, during the construction of civil engineering projects in China, some construction enterprises have not yet effectively implemented the reasonable establishment of civil engineering construction management systems. Based on this, it is often difficult to orderly implement and execute related tasks in daily work. , Which is not conducive to the harmonious guarantee of the comprehensive quality of civil engineering projects. On this issue, a large amount of data shows that based on the traditional construction mode, civil engineering project construction teams often develop their work content based on their own work experience and work habits in the process of project construction, which is not conducive to the reasonable satisfaction of relevant project quality standards. On the other hand, in the construction process, due to the lack of management system, the specific construction content is often difficult to be effectively clarified, which is not conducive to providing corresponding theoretical basis for the maintenance of the rationality of the construction personnel. For example, in the process of civil engineering construction, due to the lack of management systems, some construction companies often find it difficult to reasonably realize the systematic management of engineering equipment and construction materials, which has an extremely negative impact on the reasonable guarantee of materials and equipment performance.

## **1.3 The lack of reasonable management and control of civil engineering construction is not conducive to the effective adjustment of engineering construction methods**

Researchers point out that in the process of civil engineering development, due to the influence of multiple elements, some enterprises have not effectively realized the importance of supervision to the quality of civil engineering projects. Based on this, in daily work, it is often difficult to reasonably implement the supervision of civil engineering construction, which is not conducive to the timely adjustment and improvement of engineering construction methods, and has an impact on the guarantee of engineering construction efficiency and the quality of the project itself. On the other hand, due to the relatively weak supervision, during the construction process, some enterprises are often difficult to reasonably control the engineering structure and quality, which is not conducive to the optimization of the comprehensive quality of engineering projects and has a negative impact on the improvement of the comprehensive level of civil engineering.

# **2. Main strategies to optimize the comprehensive level of civil engineering**

## **2.1 Do a good job in staff team building and enhance the overall strength of construction enterprises**

For civil engineering construction enterprises, in order to further improve the overall quality of civil engineering projects, relevant companies should actively establish a reasonable construction team, and then achieve the improvement and optimization of the professional capabilities of the construction team personnel, which is an important

part of subsequent construction operations. Develop a solid foundation and guarantee. In response to this problem, the researchers point out that in order to further realize the reasonable development of civil engineering projects in China, construction companies should organize civil engineering construction personnel to conduct regular professional knowledge learning and unified training, so as to help staff to better understand and understand civil engineering knowledge through learning, and lay a foundation for the improvement of civil engineering project construction quality. Practice has shown that through the development of relevant learning work, construction personnel can better follow industry norms during the construction process, which has a good promotion significance for the stability and firmness of civil engineering projects. On the other hand, by learning relevant knowledge, civil engineering construction personnel can further realize the reasonable training of professional mission, which has a good guiding effect on the improvement of the comprehensive professional quality of the staff.

## **2.2 Improve the engineering construction management system to ensure the improvement of management quality**

Regarding system issues, by analyzing the current construction situation of civil engineering projects in China, the researchers point out that in order to further improve and optimize the level of civil engineering construction management, relevant enterprises should actively combine their own actual conditions to formulate and improve civil engineering construction management systems, so as to reasonably standardize the construction personnel in the form of words, and ensure that the relevant construction links are effectively connected and reasonably executed, and to provide a guarantee for the improvement of the comprehensive level of civil engineering project construction management, so as to realize the construction of civil engineering in China. The level of project construction management has been steadily improved. For example, in the construction design stage, through the formulation and improvement of the relevant management system, the construction enterprises can also invite experts and scholars to rigorously demonstrate the scientificity of the design drawings issued by the designers, so as to effectively ensure that the drawings design and construction meet the project. The required related requirements in turn avoid the problem of design rework during the construction process, thereby helping enterprises to better realize the precise control of the construction cost of civil engineering projects.

## **2.3 Effectively build a project supervision team to achieve systematic management and control of construction conditions**

On the issue of supervision, in order to reasonably realize the improvement and optimization of the comprehensive level of civil engineering projects, a large amount of data shows that in the future development stage, civil engineering construction companies should actively establish and improve the supervision system in accordance with their own conditions, so as to effectively achieve. The overall control of project construction conditions lays a solid foundation for the improvement of project quality and the timely correction of potential safety hazards. In terms of specific practices, the researchers said that construction companies should reasonably establish and improve the supervision team, so as to effectively clarify the specific work responsibilities of each staff, ensure the orderly development and implementation of construction content, achieve the level of civil engineering construction, and lay a solid foundation for the improvement. On this issue, a large number of practices have shown that through the establishment of a supervisory team, civil engineering construction enterprises can effectively supervise the implementation of all aspects of the project, and have a good guiding role in the further improvement and optimization of the overall quality of the project. For example, in the process of completion acceptance, through the orderly implementation of supervision work, enterprises can timely discover the shortcomings in civil engineering construction, which is essential for the correction of potential safety hazards and the improvement of the overall quality of civil engineering projects.

## **3. Conclusion**

In general, as one of the important components of the current social development process in China, the implementation of civil engineering work is conducive to the reasonable satisfaction of urban development needs, and it has a good promotion significance for the improvement and optimization of the quality of people's daily life and the enhancement of social productivity. Regarding this issue, a large amount of data shows that at this stage, China's civil engineering industry has been booming. However, in terms of specific implementation issues, some civil engineering construction enterprises still have certain shortcomings in their daily work that need to be improved. For this issue, construction enterprises should actively analyze and reflect on the construction management of civil engineering projects based on their own construction conditions, so as to formulate targeted optimization strategies based on actual problems, and further improve the comprehensive quality for civil engineering projects to provide new power. Focusing on the future, we believe that with the joint efforts of a large number of civil engineering enterprises, China's civil engineering industry will be further improved and optimized.

## Reference

1. Zhao G. Quality control strategy of civil engineering management construction process (in Chinese). *Housing and Real Estate* 2019; (36).
2. Zhao Y. Problems and solutions in the structural design of civil engineering buildings (in Chinese). *Estate* 2019; (19).
3. Zhou H, Xiong C, Mei L, et al. Problems in the teaching of “production practice” courses in civil engineering majors and continuous improvement measures: a case study of Shenzhen University (in Chinese). *China Construction Education* 2019; (4):80–82.
4. Ao D. Discussion On the safety and economy of civil engineering structure design (in Chinese). *Knowledge Library* 2019; (7):245.
5. Shi J. Material selection and quality control strategy in civil engineering construction (in Chinese). *Sichuan Cement* 2016; (11): 180.
6. Shi W. Research on construction schedule management and quality management of civil engineering project (in Chinese). *Housing and Real Estate* 2015; (28): 133.
7. Wang Y. Distribution of Web Resources of Architecture and Civil Engineering and Its Search Strategy. *Shanxi Library Journal* 2010; (1): 6–8.