

Research on Engineering Management of Prefabricated Style under Green Construction Concept

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Abstract: Prefabricated building engineering management is a concept that assembly building engineering uses under green construction. However, we found that the green construction concept can not strengthen the effectiveness and scientificity of engineering management and fruitful interests that new type of assembly building style bring are easy to drive the builders give up the green construction concept. Against that backdrop, we need to explore more from the specific details to the way of engineering management to find out more practical solutions to address many problems that lie in management system, construction techniques, and unplanned buildings that are belong to unsuitable assembly buildings also need our attention .This paper rolls out in-depth discussion on prefabricated building engineering management and attempts to propose suitable strategies.

1. Introduction

Newly emerged prefabricated building means constructing a building rapidly by directly assembling prefabricated components. The building assembled directly on the site is both cost and time-saving. Look on the engineering management side, the construction quality is easy to control. All that prove that prefabricated building is a labor and material-saving way compared to traditional ways of constructing. From the perspective of prefabricated buildings itself, problems of engineering management and inefficient green concepts can greatly explain why there lacks broad recognition. That means we need pay attention to these two problems to strengthen the level of prefabricated equipment construction in China.

2. About the green construction concept

Unlike the green environment concept, green construction means meeting energy and cost-saving demand by scientific management and technological entrancement, combined with environment protection concept on the premise that quality and safety should be met first. It can be summed that green construction include several parts: First, environmental protection, including control on dust , noise, light pollution, sewage and soil protection; The second is the use of materials , including construction developments, inventory management, rational material procurement, material transportation, on-site layout and housing management; The third is about water conservation and water utilization, including the collection and treatment system for recycled water at the construction site and in the constructors' living area, the spraying and greening use of pavement on the construction site and concrete maintenance; The fourth is energy utilization, which means energy conservation education, electricity control of equipment for living, working and construction. The fifth is the protection of land and construction land, which means reasonable layout of living places of staff and the steel processing and the carpenters working places, reducing the floor space. The materials entered the site in order to reduce the amount of area used for stacking.

3. Major issues of Project Management in Prefabricated Construction under the Green Construction

(1) Managers of prefabricated construction lacks consciousness for green working. One of the

key problems for this industry is the lack of an effective system. The most important issue in this system is the green working of the workers. Only when the green working is sound and strong can the construction and management be better carried out. As far as the features of the industry are concerned, the construction managers in our country were affected by the rapid growth in the past decades. And being deeply influenced by the rooted traditions make managers didn't care much about the green working. So the most important task of the project management in prefabricated construction is to figure out the way to show the green working. That can only be realized by way of informing the construction managers and workers of the issues of the traditional managements. At the same time, prefabricated construction is different from traditional construction in terms of construction techniques, procedure, management. Therefore, prefabricated assembly construction managers should spend more time to learn new management in concepts and ways to improve the effectiveness of prefabricated construction management^[1].

(2) Problematic superior supervision. For green working, the best protection and the way to do the work is a sound system. In other words, the new normal is the supervision and management of the supervision departments. The only way to ensure it is to better the law for it. So from this point of view, the best way for us to figure this out is to make a more active working departments and to do better supporting work. Along with this, we should do more to show the value of the compulsory education in effect. We should also do dual work on the assist and regulation for the project management of prefabricated construction. There do exist some uncontrollable elements for present lack of supervision, such as the lag between the newly emerged stuff, the delay and procedure to carry out a legislation and regulation. However, whatever the reason is, only enough attention of the related departments can figure this out.

(3) The management system of prefabricated construction engineering is not strong and sound. This is same as the supervision issues mentioned above. The main problem of the unsound management system is also from the workers. Especially in the construction industry of our country, there are some existing problems in the project management. One is the unsound system; the other is the efficiency of the system. Although the governments at all levels from the central to the local have published the documents to supervise and manage the construction industry, these documents have not triggered enough attention within the industry. So the prominent problem still lies in the industry, including personnel skills and ability to continue learning, as well as industry standards and requirements for workers. However, the more important problem lies in managers. But what is most serious is the lack of a management system for prefabricated construction, which is a very pity thing that could have been handled. We need to establish a relatively appropriate management system to answer the needs of the development of prefabricated construction at this stage. Besides, it is necessary to establish a complete management department to carry out such work and truly realize the supervision and systematic management for the project site.

(4) Insufficient attention on the management of prefabricated construction. Prefabricated construction is a huge project that needs many people to participate, making it dangerous without management system in general. In addition, from the perspective of safety of the project management, it also needs better project management. But in many cases, more people know about the general requirement but less know the details. They don't care the safety helmet and the non-smoking areas. All these are the problems during the construction but also can influence the construction. So from the perspective of the project management, it is necessary to carry out better management quickly. But because workers pay not much attention to the work, leaving them lack the consciousness of green working. Most of the departments put the benefit first and the less profitable departments like the construction management are more likely to be deleted as many as possible. Many companies shall only make an irresponsible worker in the place and they can never recognize the importance of the construction management.

4. Improve the engineering management on prefabricated assembly construction.

(1) Strengthen the green construction concepts and inject prefabricated building engineering management into them. Prefabricated building engineering management lies on green construction

concept, which is determined by the development of the society and the whole industry. Taking that into consideration, the future construction projects do not prioritize the profits of construction only, but also assess green value, which is the core or the guide principle during construction. However, influenced by the traditional concept of construction engineering management, it is difficult to make green construction concept accessible to more enterprises in the short term, which forces us to enable system to participate in the project management and let managers and practitioners form a brain-rooted green construction concept and carry it out into management.

(2) Strengthen the management system of the prefabricated engineering .The imperfect management system of the prefabricated engineering needs to be changed from three aspects: First, learn from the sophisticated experience and green concept of foreign countries while taking realities of prefabricated building engineering management into consideration to hammer out one or more management systems to renew itself. The second is to optimize the green construction management department in a way that level up that department; at the same time, to make sure that all departments are in close relationship but with different responsibilities. The third is to build a human resources management and employment system leveraging the analysis of big data and as well as a more equitable distribution, evaluation, supervision, and democratic appraisal system. At the same time, the corresponding departments should not only pour more efforts into law enforcement and speed up the promulgation of policies but also be a better assistant^[2].

(3) Upgrade the continuing education of people work in prefabricated construction engineering management. As studying is a lifelong thing, we must carry out a systematic, technical and advanced concept learning of prefabricated building engineering management. The combination of institutional education and knowledge learning enables more practitioners to know their weakness, forcing them to upgrade themselves by using the internet in the information era. For those who own deeply-seated traditional architectural concepts, we need to navigate them by combination of thought and practice.

5. Conclusion

As a new modern construction technology, prefabricated construction management could meet the requirements and standards of green constructing. Therefore, a management system of prefabricated construction with an up-to-date science, reason, effectiveness should be established. It is imperative, from the perspective of project management, to achieve the maximization of the green working on the premise of ensuring the technically skills and safety.

References

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