

Technical Points of Foundation Foundation and Pile Foundation of High-rise Building

Haibin Lu

Hebei University of Architecture, Zhangjiachou, Hebei, China

Abstract: *For Chinese construction industry, high-rise building projects are usually defined as more than ten floors or reinforced concrete structure more than 28 meters in height. The high-rise building is also with the development of urbanization and the increase of population and other factors and the emergence of the product, is also the inevitable trend of the development of the future construction industry, therefore, people are bound to the construction of the building construction to carry out a detailed and practical analysis and exploration, the high-rise building foundation engineering processing methods and technical points to make analysis and elaboration.*

Keywords: high-rise building; The foundation of a foundation; Pile foundation; Technical essentials.

1. INTRODUCTION

Along with the development of our urbanization and the progress of economy and science and technology, the city must build some high-rise buildings to meet the needs of People's Daily office and living, and more and more population and the development of all walks of life need to use land resources, so in order to alleviate the problem of land resources straining, high-rise building construction is a good solution. But an important foundation link of high-rise building construction is the construction of the foundation of the building, high-rise building although the use efficiency has been greatly improved, but the construction process of the existence of safety risks to human life and property safety there is a major threat, the higher floor and the heavier concrete structure make the load of the foundation under extreme pressure, so, the staff It is necessary to study and analyze the technical scheme of foundation construction. Information asymmetry and lack of customer information feedback exist in the logistics service supply chain, which leads to problems such as low logistics service levels in the supply chain. Through combing the relevant literature, this paper clarifies the concept and composition of the logistics service supply chain, and the research on the information feedback between the subjects of the physical service supply chain, and finds that there are still deficiencies in the research of customer information feedback in the logistics service supply chain. Propose specific ideas for integrator and provider contract design optimization.

2. ANALYSIS OF CHARACTERISTICS OF FOUNDATION CONSTRUCTION IN THE PROCESS OF HIGH-RISE BUILDING CONSTRUCTION

Before the construction of high-rise buildings, the foundation can be built Some characteristics of the construction link are analyzed and explored, which can help relevant designers effectively avoid some design errors, and can also use the characteristics of the construction process to design more in line with the actual situation of the construction of the design scheme. For the construction link of high-rise building foundation engineering, the staff should first realize that the complex characteristics of foundation engineering construction, after all, different environmental factors will directly affect the quality and efficiency of the construction, and the geological conditions of the construction site will directly affect the stability of foundation engineering construction characteristics, affect the later construction work And the quality of the construction results. Secondly, we should pay attention to the multiple characteristics of economic losses and safety hazards to timely reduce the risk of accidents. After all, in the design process, we can understand and prevent the conditions of some risk accidents in advance, so that we can make the corresponding protective design scheme to protect the safety and quality of the relevant staff.

Therefore, the relevant staff must clarify the multiple characteristics of economic losses and safety risks in the construction process of foundation engineering. In the design scheme, it is necessary to seriously consider a variety of factors and do a good job in design and prevention of potential problems, so as to promote the construction workers to build the foundation engineering in accordance with the scientific and reasonable design of the scheme. Finally, it is necessary to recognize the hidden and difficult characteristics in the construction process of foundation engineering. In order to solve these problems, every link of construction should have a strong and close connection to help the staff to better inspect and supervise. In addition, the staff should also pay attention to the quality supervision of each link and the timely discovery of problems and solutions, improve the efficiency of the relevant staff inspection as far as the hidden work links are very strong. Moreover, it is also necessary to timely discover the difficult problems existing in the construction process, and ensure the serious and responsible working status of the construction personnel in the work while doing a good job of supervision. In addition, compared with other construction links, the construction link of foundation engineering is more easily restricted by space environment factors. The underground work also enhances the difficulty of building foundation engineering construction. The bad construction environment will also make the construction of foundation engineering affected by a variety of factors and hinder the construction process. Therefore, the construction personnel must also have the corresponding professional quality and professional ability to deal with the difficulties encountered in the work, so as to promote the foundation construction work of high-rise buildings can be completed

efficiently and high-quality.

3. TREATMENT METHODS AND TECHNICAL POINTS OF HIGH-RISE BUILDING FOUNDATION CONSTRUCTION LINK

3.1 High-rise building foundation construction link Method of theory

First, the application of this treatment method can make. The construction work of the foundation is more stable and firm, because the compaction method can improve the strength of the settlement of the foundation and promote the quality of the foundation construction project to be better guaranteed, but this treatment

There are also adverse influencing factors in the application of the method. For example, if the suitable mechanical equipment is not selected, the settlement result of the final foundation construction will be uneven, and the quality and effect of the foundation construction will not meet the planning requirements. Secondly, the application of layered filling method can well solve the problem of insufficient load strength of the weak soil layer. This is because the layered filling method can replace the weak and loose soil layer with the materials in line with the construction structure to enhance the effectiveness of the construction effect. It can successfully solve some areas with high water content and insufficient bearing capacity, so that the soil compactness of foundation construction can meet the basic requirements of foundation construction. Thirdly, the application of soil consolidation method can effectively deal with the foundation construction in areas with large water content. In the construction process, the liquefied soil will undoubtedly make the foundation construction work more difficult. Therefore, the soil consolidation method can make the water in the soil to enhance the consolidation of the soil, and promote the foundation construction can be stable according to the plan Carry out the order and ensure the stability of the infrastructure. Fourthly, the application of chemical treatment method can promote the reaction of the body to better serve the construction of foundation engineering. The reaction of various substances such as lye and cement slurry with soil can improve the consolidation of soil and improve the nature of soil layer. For example, expansive soil can be treated chemically by adding hydrophilic minerals to inhibit its expansion.

3.2 Technical points of foundation construction of high-rise buildings

First, the staff by measuring lofting can design drawings. Accurate reaction in the real construction, and the application of this technology is through the use of a variety of instruments such as level and total station to select the reference point for comparison and design, in the case of consistent coordinates will be the construction environment and design drawings, accurate construction. Second, the construction personnel should carefully control and manage the materials, after all, the construction must be gradually completed by the use of construction materials. The quality and quantity of building materials will directly affect the effect of foundation construction, and if the control and management of building materials cannot be done well, it may lead to more construction costs and unnecessary waste of construction materials. Therefore, for the above reasons, the relevant staff must strengthen the supervision of building materials and design good management and storage Control scheme, procurement and storage management of building materials should be well supervised. In addition, but also the type and specification of building materials

Conduct classified management and prepare for various preventive measures such as fire prevention and theft prevention. Third, the implementation of information technology can improve the work efficiency of construction personnel to a large extent, not only help construction personnel reduce some safety risks, but also through the sharing of engineering information to improve the professional quality and professional ability of construction personnel, and the application of information technology can also promote the supervision of staff more efficient and timely.

4. TYPES AND TECHNICAL POINTS OF HIGH-RISE BUILDING PILE FOUNDATION

4.1 Common types of pile foundation in high-rise buildings

The construction of the traditional high-rise building installation period is mainly carried out by manual digging or mechanical drilling, this method will undoubtedly affect the surrounding living residents and this method is time-consuming and laborious. Therefore, static piling technology can be adopted in the construction of high-rise building pile foundation at this stage, so that the work process will reduce the disturbance of people around and pollution to the environment can also speed up the work progress and improve the efficiency and quality of the work. Second, the application of vibration pile sinking technology not only saves the strength of workers but also strengthens the stability of pile body, and these methods can effectively solve the construction problems caused by sand and clay soil with strong plasticity, but this method is prone to the influence of the smoothness of pile body, reduce friction to improve the efficiency of construction.

4.2 Analysis of the technical points of pile foundation of high-rise buildings

In order to ensure the good completion of foundation engineering construction of high-rise building, it is necessary to prevent

construction defects and ensure the strength of concrete. First of all, in the process of pile foundation construction, drilling as an important factor leading to defects in construction and affecting construction quality, relevant staff must do a good job in the design and supervision of drilling links. For hole collapse problem, to do is to drill the speed and mud adjustment and other aspects of the work should be strictly controlled. For neck shrinking problem, the neck shrinking position can be expanded by repeatedly sweeping the hole to ensure a good completion of the work results. For the problem of hole deflection, it is necessary to ensure that the construction site environment is appropriate, and ensure that the center of the hole and the center of the rig are in a horizontal line.

5. CONCLUSION

Taking Shanghai and Shenzhen A-share listed companies from 2013 to 2018 as samples, the relationship between executive equity incentive, internal control quality and corporate performance was empirically tested through regression analysis. The results show that executive equity incentive and high quality internal control have a positive effect on corporate performance. There is a local intermediary effect among the three. The intermediary variable, quality of internal control, can be improved by the executive equity incentive and then further improve enterprise performance. This paper provides reference and basis for listed companies to implement equity incentive plan, effectively improve the internal control quality of the company, and thus improve the performance of the company. To sum up, in the construction process of high-rise building in the present era, in order to improve the quality and efficiency of construction, it is necessary to analyze the technical points of high-rise building foundation and pile foundation civil construction, so as to promote the construction personnel to complete the work smoothly under the guidance of scientific and reasonable design scheme.

REFERENCES

- [1] Luo Wei. Key Points of Construction Technology for foundation foundation and pile foundation of high-rise building [J]. Engineering Construction and Design,2018(09):254-25.
- [2] Yan Xianfeng, Zhang Yongcai. Foundation construction and foundation treatment Technology of high-rise building [J]. China Real Estate Industry,2018(16):173.
- [3] Lin Dongdong. Discussion on Construction Technology and Quality Control of Foundation of high-rise building [J]. Science and Wealth,2018(12):74.