

# The Construction Technology of Foundation Engineering of Modern House Building is Discussed

Yongxiang Lu

Caofeidian College of Technology, Tangshan, Hebei, China

**Abstract:** *In the current era of the development of housing construction engineering, the quality and efficiency of construction engineering, by human social economy and technology and other factors have been improved. However, the improvement of people's living standards and the pursuit of material wealth have higher requirements for the construction of construction projects. Do a good job of foundation construction work for the future construction project to do a good job of stable quality assurance, in addition to the construction of the main points of attention, enhance the stability and effectiveness of housing construction.*

**Keywords:** Modern house construction; Foundation engineering; Characteristic; Method; Key points of construction.

## 1. INTRODUCTION

Although the development of our construction industry due to the influence of various social factors, has got a great push force, but in the case of the improvement of the material standard of life, human beings are also bound to their own food, clothing, housing and transportation and material culture needs to be more strict, and for human, housing construction is important to ensure the harmonious survival and stability of human life. In the process of engineering construction, foundation engineering is naturally to ensure the smooth completion of housing construction and ensure the stability of the project, so construction personnel in the construction process, to the local geological environment and other factors carefully investigated, and these investigation data together, for the later construction work to provide a certain basis for the construction, in addition, the stability of the foundation can be Directly measure the stability of the building structure and measure the quality and life of the building construction.

### 1.1 Complexity of foundation engineering construction

In the vast territory of China with great differences in geological conditions, the mixed state of various soil makes the construction of building foundation engineering need to change according to the actual situation, and such geological conditions will directly affect the stability and other characteristics of foundation engineering construction, the later construction work, as well as the quality of construction results. And a large number of earthquake prone areas, will also make the building of the foundation engineering construction is very complicated and difficult. In a complex environment, the construction of foundation engineering must take into account the complexity of soil quality and environment. Otherwise, if there are unclear factors in the construction process, it will lead to the danger of later work or affect the progress of the project, and because the quality can not be effectively guaranteed, the project will be ruined.

### 1.2 Multiple economic losses and security risks

In the construction process of foundation engineering, due to many factors. Influence and may lead to the construction of dangerous factors, because every link of the operation of the foundation project must go through a strict audit and design, once the construction scheme or design in the process of a little problem, will directly affect the construction situation, design problems will endanger the implementation of the project in reality, and threaten the life and property safety of the construction personnel, so To the relevant staff must be clear, the multiple characteristics of economic losses and safety risks in the construction process of foundation engineering, in the design scheme link, it is necessary to seriously consider a variety of factors and do a good job in the design and prevention of potential problems, to promote the construction workers can according to the design of the scheme, scientific and reasonable construction of the foundation engineering in line with the requirements.

### 1.3 Concealment of foundation engineering construction

Because of the particularity of foundation construction, the construction work of foundation engineering has strong hidden characteristics, it is difficult for the construction personnel to detect the possible quality problems in the construction process, which makes the construction work of foundation engineering more troublesome and complicated. Therefore, every link of construction should have a strong and close connection to help the staff to better check and supervise . In addition, the staff should also pay attention to the quality supervision of each link, timely discovery of problems and solutions, improve the efficiency of the relevant staff inspection as far as the highly concealed work links.

#### **1.4 Severity of security risks**

In the construction process of foundation engineering, there are naturally many Safety risks, if these safety risks once appear, will not only lead to air construction work in the process of quality problems and delay the construction period, resulting in construction results do not meet the requirements, but also may cause major safety accidents threaten the life and property safety of the relevant construction staff. Therefore, the relevant management and supervision personnel must be aware of the risk factors in the construction process, as well as the possible serious consequences, in advance to do a good job of safety protection work and strengthen the safety of construction staff Training in awareness and related skills. Supervision and control should be strengthened in every construction link to enhance the effectiveness of foundation engineering construction.

#### **1.5 Difficulty of foundation engineering construction**

Compared with other construction links, the construction link of foundation engineering is more easily restricted by space environment factors. The construction process is carried out underground, which 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, which hinders the construction process. Therefore, in view of these obstacles, the construction of housing foundation engineering naturally should attach great importance to the construction link, all the supervision personnel should be strict to avoid the occurrence of any problem, and the problems found should be timely feedback and management personnel, so that after the analysis and discussion of these problems, the design of the corresponding construction plan and solution.

## **2. ANALYSIS OF TECHNICAL POINTS IN THE CONSTRUCTION PROCESS OF FOUNDATION ENGINEERING OF MODERN HOUSE BUILDING**

### **2.1 Ensure the accurate science of engineering geological survey results**

In order to ensure the high quality and efficient completion of the foundation engineering of modern housing construction, the first thing to do is to complete the survey work seriously and responsibly, to analyze and survey the local geological environment and surrounding conditions, and to lay a good foundation for the start of the later construction practice. The investigation of local geological types and hydrological conditions can help designers develop suitable construction plans, and the information provided can also help designers develop personalized building schemes according to the relevant needs of house construction, so that the building is more in line with the local environmental conditions, so as to better meet the office and living needs of local personnel . In order to do this, the data and information surveyed by the surveyor must be accurate, otherwise it will directly affect the rationality of the design scheme of the designer and the successful completion of the later construction work. The survey results can help workers avoid some complex problems and enhance the stability of foundation construction. For example, when relevant personnel carry out exploration tasks and do not ensure the accuracy of survey data results, it may lead to the location and depth of boreholes in the construction process will affect the construction situation, resulting in errors, and eventually the construction of the project can not be accurate, efficient and high quality completion, and even bring a lot of uncertain risk factors to the building construction affecting people Use. Therefore, under the background of modern people's high safety awareness, it is necessary to do a good job of building foundation engineering construction before the exploration work to ensure the work

### **2.2 Ensure that the building structure design is scientific and reasonable**

One of the factors affecting the quality of building construction is the design of the building structure. Therefore, the relevant designers should design the appropriate building structure drawing according to the actual situation of the local area before construction, and the construction personnel should also improve the building structure to ensure the quality of the building construction in the construction process. In order to design a reasonable building structure, the first thing designers should do is to integrate the information and data of the actual site exploration analysis and thinking, the design concept and the actual situation combined to design a reasonable building structure. And through scientific calculation and experiment methods, calculate the pressure and load bearing capacity of the foundation soil and a series of data, and this series of data must go through multiple verification and repeated experiments and audits to determine the results. In the case of comprehensive consideration, according to the experience and design concept analysis to make a scientific and reasonable decision scheme, to ensure that the housing is put into use in the daily life situation, there will be no building structure problems and wall cracking and other damage phenomenon. In addition to the above, the construction process should be treated flexibly, and the scheme should be adjusted in time to meet the actual local construction environment.

### **2.3 The selection of the type of geological foundation engineering should be taken seriously**

The construction and construction of building foundation engineering is the basic construction link of all links of building construction. If the building foundation can not bear the pressure and weight of the building, it will lead to the collapse or collapse of the house and other dangerous accidents. Therefore, the relevant personnel must design the accurate bearing design standard according to the survey report, and formulate a reasonable construction scheme to help the construction Personnel

construct plans that are suitable for environmental factors such as local hydrological and geological conditions, and can take an independent approach to foundation construction situations that cannot withstand design standards. The raft foundation design is used to cope with the weak foundation. The higher foundation of the building enhances the stability of the building, because the foundation of this design can increase the contact area between the house and the ground, making the building more stable.

### 3. CONCLUSION

To sum up, in the construction process of building foundation engineering in the present era, the construction personnel must know that the construction of foundation engineering has an important impact on the life of the building and the stability of the building, so the staff must analyze and think through the geological exploration and the reasonable design of the structure and other aspects to design the building in line with the actual situation of the local .

### REFERENCES

- [1] Lu Peiqiang, Wang Guanghui. Research on Construction Technology of building foundation engineering [J]. Henan Science and Technology,2018(4):12-13.
- [2] HAN Xinli. Research on Construction Technology of Foundation Engineering of Modern House Building [J]. Shanxi Architecture,2018(9):47-49.
- [3] Lin Xingmin. Discussion on Construction Technology of Foundation Engineering of Modern Building Building [J]. Low carbon World,2018(4):53-54.