

# Some Reflections on the General Contract of Construction of University Capital Construction Project

Zitong Ma<sup>1,a</sup>, Yifeng Sun<sup>2\*</sup>, Mingchang Ma<sup>1,b</sup>, Lingxu Li<sup>3,c</sup>

<sup>1</sup>Changchun Institute of Technology, Changchun, 130000, China <sup>2</sup>Jilin University, Changchun, 130000, China <sup>3</sup>Dianchi College of Yunnan University, Kunming, 650034, China

**Abstract.** College infrastructure construction project construction contract signing and management is the key link of infrastructure management. To protect the interests of colleges and universities, standardize the management of infrastructure projects, effectively avoid the possible legal risks in the performance of contracts, and meet the needs of teachers and students on the quality of construction projects. Universities should prioritize drafting and concluding construction contracts, enhancing management through four key measures: establishing clear document priorities, specifying special terms for construction quality, regulating advance and progress payments, and improving contract preparation, review, and signing mechanisms. Universities should refine contract content to prevent disputes and ensure collaboration among capital construction, audit, finance, bidding, and procurement departments for robust and operable contracts.

Keywords: colleges and universities; Capital construction project; General construction contract

#### 1 Introduction

A total of 6,132.914 billion yuan will be spent on education in 2022, of which 4.01 percent will be spent on education by the state. For ten consecutive years, China's education investment has exceeded 4%, emphasizing its priority development strategy. Despite increasing college building investments, the building area per student has decreased, averaging 25.21 square meters. Given limited investment growth, efficient fund usage is crucial. Universities must strictly manage construction contracts to ensure education funds are spent effectively on critical infrastructure.<sup>[1]</sup>

The legal system of China's construction industry has been continuously improved, including laws and regulations such as the Construction Law of the People's Republic of China, the Law of the People's Republic of China on Tendering and Bidding, the Civil Code of the People's Republic of China and the Implementation Measures for General Subcontracting of Construction and Installation Projects, which, together with

C. Lin et al. (eds.), Proceedings of the 2024 9th International Conference on Modern Management, Education and Social Sciences (MMET 2024), Advances in Social Science, Education and Humanities Research 880, https://doi.org/10.2991/978-2-38476-309-2\_91

relevant judicial interpretations of the Supreme People's Court, form the legal basis for the management of university infrastructure. Under the strict bidding procedures, qualified bidders are selected for infrastructure projects. However, in the process of construction, due to the disputes over the terms of the general construction contract, the blank laws and regulations, and the vague responsibilities of the parties, Party A and Party B often have conflicts<sup>[2]</sup>. Some of these conflicts affect the construction period and settlement progress, some lead to arbitration or litigation, and even cause social stability problems, such as petitioning by migrant workers. Therefore, the university tendering and procurement management departments should pay attention to the drafting, signing, and management of the general contract for the construction of infrastructure projects after bidding. In strict accordance with the construction industry, bidding law, and other relevant laws and regulations, standardize the bidding procedures; Make clear the substantive content of the contract; Curb illegal subcontracting, subcontracting, and affiliations; Ensure project quality and safety; Clarify the liability for breach of contract, make good use of the weapon of law, effectively safeguard the interests of the school, and make the best use of the capital construction investment.

#### 2 Reasonable Determination of the "Priority Order of Contract Documents"

The bill of quantities is generally used to price the construction contract of the domestic university infrastructure construction project in public bidding, and this paper is based on this model. After determining the winning bidder of the total construction contract, both parties need to complete the contract drafting, signing, and subsequent contract performance procedures. The "priority order of Contract documents" is an important component of the "special clauses", which specifies which documents shall prevail and which order shall be followed in case of disputes or inconsistencies. Its significance is, first, to clarify the rights and obligations, the priority order helps to determine the rights and obligations of the parties, to avoid ambiguity caused by the conflict between the documents; second to resolve disputes. When there are differences in terms in different documents, the priority order can provide a basis for resolving disputes and ensure the execution of the contract; Third, to provide a legal basis, in legal proceedings or arbitration, a priority order can be used as an important basis to determine the validity and interpretation of the contract; The fourth is to ensure the integrity of the contract. By determining the priority order, the integrity and consistency of the contract documents can be ensured to avoid omissions or duplication.

Through exploration and summary in practice, it is suggested that the composition and priority of contract documents are as follows: Contract agreement, Notice of winning the bid, special contract terms and their attachments, bidding documents, addenda (clarifications) documents, instructions for the preparation of the maximum bid price limit, technical standards and requirements, drawings, bidding documents, bid letter and its appendix, list of priced quantities or budget, general contract terms, and other documents. The contract agreement and the notice of winning the bid jointly set out the basic overview of the project, the basic information of both parties, the time limit, the contract price, and the form of the contract price. As the basis of the project, the contract agreement should be in the most priority position in the contract documents.

The special contract clauses and their attachments state the information and contact information of the contract parties and other parties, laws, regulations, and other normative documents applicable to the contract, standards, and specifications applicable to the project, drawings and contractor documents, correction of errors in the bill of quantities, general obligations of the contractor, performance guarantees, project quality, and other key information elements in the implementation of the project. Shall be located in the second priority position of the contract documents.

The bidding documents, add-ons (clarifications) documents, instructions for the preparation of the maximum bid price limit, technical standards and requirements, and drawings are valid texts formulated by Party A during the preparation of the bidding documents, in response to bidders' questions on the bidding documents, and by relevant laws and regulations and the local construction market to ensure the smooth implementation of the infrastructure project, and shall be located in the general priority position in the contract documents.

Party B's bid text, bid letter, and its appendices, list of priced quantities or budget are, to a large extent, Party B's self-interpretation of Party A's bidding documents, addenda (clarifications) documents, instructions for the preparation of maximum bid limit price, technical standards and requirements, drawings, etc. On the one hand, Party B should put forward attractive conditions in terms of contract price, construction period, construction organization, preferential conditions, and service commitment to increase the probability of winning the bid. On the other hand, Party B also tries to gain more benefits in the aspects of construction change, visa, and settlement in the bidding documents. The general terms are too broad and can not protect the interests of Party A in some important links affecting quality, progress, investment benefit, and risk prevention. Therefore, the tender documents, Party B's other documents, and the general terms shall have the lowest priority in the contract documents.

By scientifically and reasonably adjusting the priority order of special contract terms, Party A can safeguard its interests and ensure the smooth implementation of the project within the framework of national and local laws and regulations.

### **3** The Special Terms Shall be Clearly Stated to Restrict Key Factors Such as Construction Quality

The construction of university infrastructure is an important guarantee for providing daily teaching, research, and living facilities. Compared with other engineering projects, university infrastructure projects have their unique characteristics<sup>[3]</sup> in the construction process. Compared with other buildings, university infrastructure should consider the cultural and humanistic connotations of the whole campus comprehensively when carrying out project planning, architecture, and landscape design. In the construction of modern university campuses, the function of campus construction is not only to

provide students and teachers with teaching and living space but also to realize the collision of various disciplines and the exchange of various ideas and cultures[4]. According to the bidding documents, the general contract of capital construction projects has different forms of pricing mode. This paper takes the commonly used bidding mode of the bill of quantities and adopts a "unit price contract" as an example to illustrate.

Rebar, steel, commercial concrete, commercial mortar, cable, and other materials are greatly affected by the price fluctuations of the construction market, accounting for a large proportion of the construction cost, and can be agreed to give a difference when the market price fluctuations are large. In addition to other materials, labor costs, machinery, and rates can not be adjusted with the market fluctuations (except for the local government management department explicitly enforced), the bidder won the bid after the comprehensive unit price can not be adjusted due to changes in the amount of work.

If there are the same or similar items in the list of priced quantities, the comprehensive unit price shall be adopted or referred to. If the list of priced quantities does not include the same or similar items, the price shall be quoted in the form of a fixed price, and Party B shall be required to make a profit according to the floating rate (discount rate) of the bid price.

Party A shall, together with the general contractor and the supervisor, formulate the bidding and procurement plan[5] for all sub-projects (including provisional valuation), provisional valuation materials, and equipment in advance. The general contractor shall organize the bidding for the provisional valuation and items of the bid quotation. Relevant departments of Party A shall participate in the formulation of the bidding documents and sign the approval sheet according to the bidding results. The audit department shall take this as the basis for settlement. Materials entering the provisional valuation shall be submitted to the supervisor for inspection of brand, specification, model, and price, and shall be submitted to Party A for approval. According to its financial situation, Party A may raise its procurement standards for materials and equipment related to the safety and comfort of operation, such as power distribution equipment, elevators, air conditioning systems, fresh air systems, lighting systems, curtain wall doors and Windows, toilet sanitary ware, etc. of infrastructure projects and enter the bidding documents[6] in the form of provisional valuation when bidding. Therefore, it is necessary for Party A to clearly define the relevant technical standards in the contract to ensure that the materials are genuine and the goods are genuine.

### 4 Strictly Control the Payment of Advance Payment and Project Progress Payment

In recent years, the construction industry has shown a trend of differentiation, the real estate market confidence is insufficient, the industry has been deeply adjusted, and the main indicators have declined significantly. After the novel coronavirus epidemic, the domestic infrastructure construction market has gradually recovered. University infrastructure projects and infrastructure investment have increased, but the overall situation has not reached the scale of construction in 2018 and before. The current construction market as a whole is still operating at a low level, and it is not easy to pay prepayment. If advance payment is indeed required, Party B shall be required to provide a valid letter of guarantee issued by the bank equal to the amount of advance payment before the amount of advance payment can be determined. Party A shall pay 60%-90% of the actual amount of the project every month (generally speaking, except for the general contractor of the project with strong strength and advanced ability, Party A shall give a basic guarantee for the progress payment of the project to ensure that the construction period will not be delayed). After the completion of the completion of the acceptance, the general payment to 80% of the contract price, after the settlement of the payment to 97% of the contract price, and the remaining 3% is the quality guarantee.

Party A shall also specify in the bidding documents and at the same time state in the contract: that Party B shall commit to ensure the continuity of construction even if Party A's funds are not in place or the payment proportion is not up to the agreed proportion (the amount and proportion generally acceptable to both parties according to the general situation of the construction market in each region and the comprehensive factors such as construction area, structure form, progress, and investment). In recent years, due to the influence of some enterprises, the domestic construction market has fluctuated greatly, and the risk of construction enterprises falling into "triangle debt" has increased sharply. To prevent the project funds paid by Party A from being illegally misappropriated or Party B's account being frozen and funds being withdrawn due to litigation and other reasons, and to ensure that all project funds are completely used for Party A's infrastructure projects and special purposes, Party A and Party B can jointly sign the "Special Account co-management Agreement" in the bank. Party A and Party B shall open a bank account jointly managed by Party A, Party B, and the bank with Party B as the account holder at the bank designated by Party A. By establishing the "co-management account", Party A can not only monitor the use of funds in real-time but also control the construction progress to the maximum extent, so that the project can be implemented in strict accordance with the schedule and improve the efficiency of the use of funds. On the other hand, Party A can further protect the legitimate rights and interests of construction workers by stipulating in special clauses or supplementary agreements that Party B must open a "special account for Migrant workers' wages" and accept the supervision of the competent construction department of the government, implement the "Migrant workers' wages deposit" system, and try to entrust the subcontracting unit to the general contractor for the payment of migrant workers' wages.

## 5 Improve the Relevant Mechanisms for the Compilation, Review, and Signing of the General Contract for the Construction of Capital Construction Projects

Different from other organs, enterprises, and institutions, institutions of higher learning often have a strong internal cooperation and restriction relationship. Generally speaking, the Department of Infrastructure Construction, Audit Department, Finance Department, and Bidding and Procurement Management Department each perform their duties. A school in good financial condition can ensure the normal operation of its infrastructure finance. The financial department does a good job of infrastructure financial management according to regulations. The other three departments should do the following according to their different responsibilities:

The bidding and procurement management department is the leading department for the signing and management of the general contract for the construction of the capital construction project. The capital construction department is responsible for the specific drafting work, and should carefully organize and carefully draft the special contract terms according to laws and regulations, bidding documents, addendum (clarification) documents, instructions for the preparation of the maximum bid price limit, technical standards and requirements, drawings, bidding documents, bid letter and its appendix, list of priced quantities or budget, etc. And maintain smooth communication with audit, bidding, and procurement management departments at any time during the preparation process. Generally speaking, the technical level should reach an agreement with the audit department to ensure that the final audit settlement of the project can be implemented by the standards of the audit department; At the commercial level and the interpretation of bidding documents, the opinions of the bidding and procurement management department shall prevail, to ensure the coordination and consistency of the whole project from bidding to implementation.

The audit department and the bidding and procurement management department should give sufficient suggestions and necessary guidance to the infrastructure construction department in terms of contract text management. When there is a large conflict of opinions between the departments, they can collectively discuss and report to the corresponding decision-making process for ruling. Contract signing and management need to have the corresponding professional background of professional and technical personnel to carry out the operation, if a[7] university infrastructure department from technical ability to experience cannot undertake the drafting of the contract, the audit department and bidding and procurement management department should undertake the work.

Under normal conditions, after the construction department completes the construction contract, it will be reviewed by the audit department and then submitted to the bidding and procurement management department for approval, and then formally enter the contract signing stage, and the signing can implement the system of countersigning or transfer of multiple departments on campus. For the consideration of "legal risk prevention and control", it is suggested that before the formal signing of the contract, the university policy and regulations department hire a lawyer to review the contract text, review and give legal opinions from the legal level, indicating the possible legal risks faced by the contract and give legal suggestions and feasible measures.

#### 6 Conclusion

To sum up, the general construction contract of a university infrastructure project is a key legal document affecting the quality, safety, progress, and investment efficiency of the project, which must be treated seriously with a high degree of professionalism and rich management experience. There are many uncertain factors in the construction process of university infrastructure projects, which require a clear agreement on a series of

related requirements such as construction conditions, payment terms, dispute resolution methods, project payment methods, contract changes, etc., in the special terms. The more detailed the problems that may occur in the construction process will be considered in the special clauses, the clearer the agreement will be. Once a dispute occurs in the later period, a clear agreement on rights and responsibilities will be conducive to the handling<sup>[8]</sup> of contract disputes. The Party's 20th National Congress report pointed out that to "prevent and resolve major risks, maintain the overall stability of society", construction contract disputes into the litigation link are bound to cause a waste of judicial resources, and may also bring corresponding losses to the school. Prevention is more important than governance, through rigorous preparation of special clauses, improving the construction contract, can better clarify the responsibility and power of both parties and further settle disputes. The university's infrastructure construction department, audit department, bidding and procurement management department, and other institutions should work together to standardize the management of the construction project construction contract, do a good job of the construction contract, especially the content of the special terms of the research and elaboration, to make clear the work content, standardize the operating procedure, strictly observe the work rules, prevent the risk of integrity, and safeguard the interests of the university. Build infrastructure construction projects into high-quality projects, safe projects, and clean projects to provide a basic guarantee for the construction of a powerful education country.

#### References

- Fu Zhiyong. Thinking on the Management of University Infrastructure Construction Contract [J]. Time Finance, 2013(02):48+52.
- Shen Qingping. Analysis of contract management of university infrastructure projects and countermeasures [J]. Real Estate World,2022(15):105-107.]
- Yin Shaoyun. Research on the current situation and Measures of capital construction management in colleges and universities [J]. Building Materials and Decoration, 2020(9):180-181.
- Wei Mingguang, Mai Qingyi. [J]. China Science and Technology Journal Database Industry A, 2022(5):148-151.]
- 5. Liu Hongtao. Thoughts on the management of university infrastructure construction in the new period [J]. Anhui Architecture,2022,29(02):181-182.
- Liu Fang, Bao Qichang, Zhang Juan. [6] Construction and Application of University infrastructure Project contract Management System [J]. Construction Economics, 2019, 40(10):108-111.]
- Wang Meng. Common Problems and Countermeasures in University Infrastructure Project Management [J]. China Bidding,2024(01):159-161.
- An Jing, Dong Hongyan. Discussion on University infrastructure contract management [J]. University Logistics Research, 2019(07):35-36.

760 Z. Ma et al.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

$\bigcirc$	•	\$
$\sim$	BY	NC