

CAD Design Application and Construction Technology of New Alkali - Resistant Glass Fiber Composite Building Materials Used in Building Decoration

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Abstract

New alkali glass fiber composite materials need to be in the process of construction cost control, it is in the course of the construction of new alkali glass fiber composite materials is an important management process, and is a new type of alkali glass fiber composite materials other fundamental premise of the project, such as project quality management, the construction speed regulation and whether to allow the surrounding conditions, etc.In this way, many problems in the construction process of the new alkali resistant glass fiber composite building materials can be solved to a large extent, various risks in the construction process can be reduced, and a series of improvements can be made to the construction of the new alkali resistant glass fiber composite building materials.

Keywords: New Alkali Resistance, GlassFiber, Composite Building Materials,

Preparation of an Estimated Budget, Building Decoration;

1. Introduction

Budgeting is also a very important work, which plays the same important role as cost control. The entire construction process of new alkali resistant glass fiber composite building materials requires cost budgeting. Based on the budget preparation of Angle, to the whole new alkali glass fiber composite building materials for the construction of the process, the new alkali glass fiber composite some project risk in the course of the construction of building materials and construction speed is analyzed, the solution of the formulated a series of feasible and safe approach and scheme^[1, 2].

2. The relationship between the budget estimates of new alkali resistant glass fiber composite building materials and building decoration

New alkali glass fiber composite materials, the roughly cost needs to be done before the construction, in different construction stage of the project, adopt different standards of the whole project specific cost accounting has the inspection, so we can better follow up the new alkali glass fiber composite building materials construction progress, and a detailed understanding of construction engineering. According to the relevant documents of the state, the cost accounting of different indexes of the project is carried out to determine that the construction and construction of each project are reasonably based on evidence and meet the national standards^[3].





Figure 1.Alkali resistant glass composite fibers commonly used in building construction.

Cost budgeting is an important measure for construction projects. It is a long-term task at each level of construction and a preliminary work in which the overall cost of a building can be obtained through prior preparation. The budget preparation can change and adjust the project investment accordingly, and the engineer shall design and plan the construction scheme according to the specific situation of construction and the need of cost.

From the point of the whole situation of the modern construction industry, the contemporary new alkali glass fiber composite materials of construction process, in order to achieve better economic benefits and the whole social influence, are constantly to improve themselves, increase the budget of the corresponding level, to a reasonable project of the whole cost estimates, which controls the project's overall cost, can be beneficial to related enterprises and companies to the economy of new alkali glass fiber composite building materials investment, they would follow up all of the management and regulation of control process, Thus correctly guide the construction work of new alkali - resistant glass fiber composite building materials.

3. Major problems existing in the budget of new alkali resistant glass fiber composite building materials

3.1. The budget method has hysteresis

With the improvement of the level of science and technology, the overall situation of the society is undergoing rapid innovation. From the overall situation of the current construction industry, there have been a lot of high and new technologies, new technical materials and new building structures in the construction field^[4]. Meanwhile, there are more scientific means to supervise and regulate the construction process. From the current overall situation of budget establishment of the construction industry in our country, is still in a backward state, whole is a kind of method of operation by static means financial budget, through artificial calculation of alkali glass fiber composite materials and the basis of the statistics, with the new additions to the budget establishment, this way often cannot have enough representative, easy to form a single error conditions.



Figure 2. Alkali - resistant glass fiber made by hand.

3.2. Budget design lacks whole-process awareness Currently, the phased management cost budgeting model is widely adopted in China. The shortcoming of this model is that it cannot have a good whole-process management condition and lacks the consciousness and ability to comprehensively manage the budgeting of new alkali resistant fiberglass composite building materials. In other stages of a construction project, due to market and human factors, unplanned expenditures will



inevitably occur. In this case, blind budgeting becomes a bottleneck restricting the progress and accuracy of the project.

3.3. Randomness of construction design changes and lack of risk prevention awareness

The design change in construction stage is very random. From the current situation of the whole construction industry, the construction units of new alkali resistant glass fiber composite building materials in China still have insufficient understanding of safety awareness. and awareness of risks cannot be improved, so they cannot form a complete awareness of avoidance. The risk management of construction enterprises is only limited to the reading and publishing of relevant safety theoretical documents, which cannot be put into practice and the problems existing in the project cannot be accurately grasped.In the construction stage, the construction unit did not carry out the construction according to the design for the convenience of construction, which resulted in a expenditures lot unplanned and project overexpenditure. Therefore, the original design had to be changed to adjust the project budget.



Figure 3.Alkali resistant glass fiber for building construction based on CAD design.

3.4. Imperfections of the project bidding and design system

There are loopholes in the design and bidding system management of the current project construction. In the design bidding, the construction party lacks scientific management, which leads to the blind pursuit of effect by the design party and deviates from the applicable, scientific, safe and economic design principles^[5]. Although many construction units have a certain understanding and understanding of budget budgeting, it is only a very simple foundation. They do not grasp the correct direction and focus of management and cannot play a role in actual regulation and control. At the same time, in the bidding process, the construction side, in pursuit of interests, arbitrarily reported the amount of the project, resulting in the investment budget and the actual construction decoration seriously inconsistent.

4. Specific measures to strengthen the work of budgeting

4.1. Understand the site situation of the project and the characteristics of construction organization It is necessary to master the first-hand information of the construction project site and consider the possible construction methods and measures to make a good budget. From the design current construction units have a great lack of awareness of budget preparation, the unit itself can not form a complete budget preparation and regulation system, which will lead to the relevant budget preparation and construction safety work loopholes, and then affect the project progress and the overall quality of the project.



Figure 4.Architecture and decoration in the application of new building materials.



In order to reduce the overall cost of engineering, can effectively budget preparation work, and take the corresponding management measures, formulate relevant cost adjustment control means, the new type alkali glass fiber composite construction exists uncertainty in the process of building materials to reduce and control risk and potential losses of the project is compressed, so that we can make construction enterprises more clearly understand the whole situation of the construction and field problems, which can make enterprises more competitive, in the fierce competition in today's market economy can guarantee the stability of their own, so as to seek a more long-term development and progress.

4.2. Be familiar with the design drawings, fully understand the design intention, and calculate the project amount correctly

Budget compiled by the relevant personnel need of engineering design drawings are clear, for all kinds of construction manual guarantee and of construction drawings that are clear, can skilled independently design and construction drawings changes, and be able to understand the whole construction process and steps of drawing, to have a clear grasp of the overall construction. Relevant personnel need to be familiar with each step of the design of the project, so as to understand the relationship between each step of the design, so as to be able to clearly calculate the cost of each project, correctly complete the quota calculation, ensure that each step of the project can be detailed and correct calculation.



Figure 5.CAD design concept of architectural decoration.

The budget-compiling should personnel calculate accurately the amount works corresponding to the design drawings according to the design drawings, which requires the compilers to have strong professional knowledge and rich experience in site construction. Construction experience is reflected in the staff's grasp of construction organization design and construction technology. For example: the use of scaffold type, the performance and characteristics of various construction machinery, as well as the characteristics of new alkali resistant glass fiber composite building materials and construction of special requirements.

5. Construction application of new building materials in building decoration

Compared with traditional procurement engineering and labor engineering, the characteristics of building materials in the new period are as follows: long construction period; High cost of standard assets; The project is irrevocable. The generation of alkali resistant fiber composite system of building materials also makes the accounting treatment of modern construction enterprises more complex. China has formulated corresponding building material standards for the construction of alkali resistant fiber composite drainage, to reduce the pressure of building materials^[6].



5.1. The project production management system is not implemented

The construction site project management needs to start from the project management system, but often many construction site project responsibility, reward and punishment is not clear, the system is not perfect; Some construction site project management system is a mere formality, the overall engineering measures are not in place; At the same time, the team inspection, project inspection is deficient, resulting in a weak engineering security system, housing construction often exists a large potential hidden danger.

5.2. The project management personnel cannot meet the actual needs

Project management organizations and management personnel are often neglected, in the specific projects housing construction, full-time project of management personnel are not able to meet the actual needs of the project. Most of the engineering technicians have poor overall construction engineering quality and have a vague understanding of enterprise engineering management, which makes it difficult for them to perform their duties.

5.3. There are potential safety hazards in housing construction projects

It is one of the most effective ways to promote project construction management to start from engineering training and gradually cultivate the code of conduct of construction personnel through training.

But with the continuous development of enterprise scale, the existing staff are often difficult to meet the needs of large-scale construction, in the process of project construction is gradually introduced more "subcontract work" and "migrant workers", the influx of this part of the staff on the one hand, great vigor and vitality to the construction project, but because of its risk consciousness does not reach the designated position for project, engineering quality is not up to standard and the elements, they also became a project construction non-standard major hazards.

5.4. Safety education of housing construction has not been implemented

A considerable part of the housing construction process, the construction personnel of engineering safety education is not timely, the quality of the construction personnel is difficult to meet the specific construction needs. A sound staff training system should be established to regularly organize the construction staff to learn all kinds of knowledge, including the specific operation specifications, inspection standards and work provisions.



Figure 6.Application of CAD in architectural decoration.

As shown in figure 6, the aim is to make sure that all the construction personnel have an understanding of the basic characteristics of the project. For the key technical personnel of special type of work, the project party should carry out pre-job qualification verification, pre-job training and other work to ensure the project quality and time limit for completion on time.

6. Establishment of alkali resistant fiber composite system of building materials in the new period

6.1. Methods of alkali resistant fiber composite of building materials

The overall construction period of building materials is relatively long, which will basically last more than one fiscal year. In the specific construction, the cost of materials and construction costs are constantly changing, and the consideration paid by customers is completed at different time nodes. It is difficult to directly match the income cost of project



management during the performance of building materials. Construction material management takes the specific progress of completion as the basis to confirm the completion of the project. The alkali resistant fiber composite system first needs to determine whether it belongs to the project management income within a certain period of time, and then measures the relevant progress.

Three different methods are proposed for the review of the progress measurement of the new building material alkali resistant fiber composite: the proportion of the total cost of the project that has occurred, also known as the percentage method; Can compare the project workload with the budgeted workload; You can also actually measure the specific work schedule. But in the actual construction process, the percentage method is the most commonly used method, which carries on the statistics and the proportion analysis for the accumulated project cost. 6.2. Confirmation point of building materials management

According to the requirement of alkali resistant fiber composite stipulated in the code of building materials, all building materials need to confirm the project management income according to the completion schedule. It cannot be said that the project management income can only be confirmed at a certain time point.Alkali resistant fiber composite system focuses on the transfer of control to replace the risk of reward transfer, and feedback in the actual construction of this time point is often closer to the completion time point. In the management of building materials, alkali resistant fiber composite system focuses on the actual adjustment of engineering operations by customers, which does not include claims and incentives, but also cannot guide the change of engineering.

6.3. Principles of alkali resistance fiber composite of building materials

The disclosure of information is a key link in maintaining a balanced market, which can effectively prevent the occurrence of information asymmetry between the two sides. From the perspective of signal transmission theory, information disclosure is a relatively effective way to influence strategic decisions of construction enterprises. The disclosure of support signals will make it easier for construction enterprises to form strategic alliances in the market. In general, enterprises that get the attention of venture capital in the market often have already sent relevant signals, indirectly certifying the enterprise as a high-quality enterprise, at the same time, reducing the cost of information transmission between other construction projects, promoting the construction enterprise to successfully form strategic cooperation with other enterprises, and can promote its continuous financing support. At the same time, the reputation of a construction enterprise in the market will determine whether it can find a strategic partner or not, so that the high reputation of a construction enterprise in the market is the driving role of building materials in the alkali resistant fiber composite system, and the scope of strategic choice of the enterprise will also be affected.

7. Countermeasures on the influence of construction enterprises on alkali resistant fiber composite system

7.1. Strengthen the standard alkali resistant fiber composite of building materials

The alkali resistant fiber composite system takes the projects signed between customers as the basic engineering management income, and carries out corresponding customers under the engineering recognition mode of construction enterprises, and ADAPTS to the change influence brought by the alkali resistant fiber composite system through engineering management.Alkali resistant fiber composite system want to consider the change of project management, revenue recognition model and its various projects to build enterprise potential tax effects, such as the difference between accounting and tax treatment, etc., should be as soon as possible to assess the effects of alkali resistant fiber composite system, on this basis to be able in the future development of ready to connect.



7.2. Assess and rebuild enterprise information system procedures and internal controls

The recognition of engineering management income stipulated in alkali resistant fiber composite system is to a large extent based on estimated value as the standard for evaluation and confirmation, but it is different for estimation and audit of different situations in engineering change. The time value of money and customer risk assessment with significant financing nature are the issues that construction enterprises need to consider.

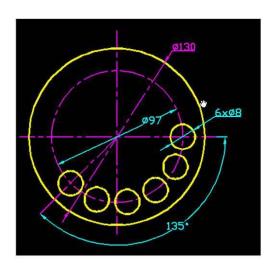


Figure 7.CAD cross section design of alkali resistant glass fiber composite.

Construction enterprises need to enterprises owned by the current information system and internal control procedures to the current situation of effective comprehensive evaluation, so as to confirm whether can be used as alkali resistant fiber composite under the system of project management, revenue recognition scheme if he can't meet the requirements should be carried out in accordance with the enterprise actual situation to plan and design. At the same time, alkali resistant fiber composite system should require enterprises to reveal more information of project management income, so as to adjust and optimize the information system and internal control. 7.3. Establish a professional team and replan the enterprise strategy

The alkali - resistant fiber composite system puts forward higher requirements for the financial

personnel and financial system in the construction enterprise. According to the specifications and standards of alkali resistant fiber composite system, the enterprise should build an overall cross-functional team, including talents in finance, construction, law, information system and other aspects. Only by establishing a professional team can the enterprise fully understand the alkali resistant fiber composite system more effectively, and gradually adapt to and implement it. Cross-functional teams can effectively help enterprises to analyze various elements in the project, make a comprehensive professional judgment on the re-audit clauses, performance obligations, evaluation of project expectations and other engineering elements, and accurately confirm the further income of enterprise project management.

8. Conclusion

With the rapid development of China's national economy, a series of problems have arisen in the application of the old management system.For example, the distinction between labor engineering and construction materials mentioned above, the regulation of risk and reward transfer, the growing development of emerging industries, frequent occurrence of transaction accidents, etc. However, construction enterprises should adjust the overall standard of project management income recognition through various ways, refine the measurement of project management income, and at the same time make clear the prevention of project management income distribution, so that the requirements of disclosure and presentation are higher. establishing a professional team, evaluating and rebuilding enterprise information system procedures and internal control, as well as assessing the impact as early as possible, replanning enterprise strategy can effectively respond to the new situation. The quality level of project budget preparation directly affects the final level of building decoration. To do well the budget preparation of new alkali resistant glass fiber composite building materials can not only effectively control the construction cost, but also ensure the



construction safety and improve the safety of the construction process. Construction enterprises should make reasonable analysis of the deficiencies in the compilation of the construction project budget according to their actual situation, and promote the construction enterprises to realize the maximum of economic benefits in the construction of the whole project construction activities and the compilation of the estimated budget. With the rapid development of today's society, facing the trend of globalization and internationalization, construction enterprises should seize the opportunities and challenges of the era, enhance their market competitiveness, and finally remain invincible in the fierce social competition.

References

- [1] Wang, Sheng, Wang, et al. Development of the nano-composite cement:application in regulating grouting in complex ground conditions[J]. Journal of Mountain ence, 2018, v.15(07):193-205.
- [2] Wang X, Wang Z, Wu Z, et al. Shear behavior of basalt fiber reinforced polymer (FRP) and hybrid FRP rods as shear resistance members[J]. Construction & Building Materials, 2014, 73(dec.30):781-789.
- [3] Yong Y, Zishang W, XueyaoZ. Research on energy-saving technology route of large glass curtain wall building in cold area[J]. Shanxi Architecture, 2019.
- [4] Zhao Q, He H, Chuai Y, et al. Design and implementation of a security system based on ADSL access technology[J]. Journal of physics: conference series, 2020, 1633(1):012103 (7pp).
- [5] Roger, D, Simon. Citybuildingon:sortingthenewnineteenth-ce nturycity(review)[j]. technology and culture, 2006, 47(1):210-211.
- [6] Wax E, Martin Krempaský, JurajĎurove. New inner canalizing technology with vapour hardening material[J]. Acta Montana

Slovaca, 1999, 4(3):11.