Construction Economics - The Economic Impact of a Resident Geomatic Engineer

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SUMMARY

This paper offers a comprehensive exploration of cost-saving strategies in the construction of multiple mine infrastructural projects for one of the distinguished mining companies in Ghana. This paper highlights distinct procedures to cut down and save unforeseen and unbudgeted funds. In these projects, the resident Geomatic Engineer plays a key role with respect to Construction Economics. There have been projects on the same mine that significantly exceeded budget because of the absence of a resident Geomatic Engineer.

Introduction

The mine earlier expressed some reluctance to have a resident Geomatic Engineer as their primary focus was on mining production rather than project-specific geomatic endeavors. We managed to convince the company that budgets for the projects can be to a large extent managed if a Geomatic Engineer is resident on site.

The mine believed that having an initial topographical survey of the area of interest is all that is needed for these projects with respect to the role of a Geomatic Engineer.

Methodology

As Geomatic Engineers, the models for these projects were generated with Computer Aided Design Software such as AutoCAD Civil 3D, giving 3D models of the projects' end product. This provided various detailed sections of the end products. All possible occurrences of the various projects were also brought to

light.

Also, GNSS played a pivotal role in the seamless execution of setting out construction parameters.

Conclusion

Project planning became more precise, ensuring objectives were met with minimal margin for error. The economic benefits were substantial, resulting in remarkable cost savings and streamlined operations.