# STUDY ON FACTORS AFFECTING REWORK IN BUILDING CONSTRUCTION

**MASTER OF SCIENCE**



**IN**

**CONSTRUCTION PROJECT MANAGEMENT**

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# STUDY ON FACTORS AFFECTING REWORK IN BUILDING CONSTRUCTION

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## AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this dissertation, and material thereof is, in part or whole, not previously submitted for a degree or diploma in any university to the best of my knowledge and does not contain previously published or written by another person except where due references are indicated.

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## ABSTRACT

Rework which is often experienced in construction projects is primarily caused as a result of poor site management practices mainly contributed in presence of incompetent knowledge and supervision, poor workmanship, insufficient supervision, improper work protection.

Recent research has shown that rework is the significant cause for schedule and cost overruns, quality deviations, poor safety, and client and contractor dissatisfaction in the building construction industry. Reducing rework is widely regarded as an effective way of improving construction performance in terms of productivity, cost, schedule, quality and safety.

The research presented in this paper uses multiple completed building projects to identify the significant variables that contributed to rework. Rework factors' identification and categorization are carried out on the basis of rework performing groups in the design and construction process and best practices are proposed in considering the stages of design and construction.





This research develops generalized best practices and checklists, which are intended to reduce rework by managing construction building projects for the purpose of performance and productivity improvement. Also, they can enable project managers to better understand priority areas in the process of site management practices in construction projects.



**Keywords**: Building Constructions, Rework, Causes, Best Practices.

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**Abbreviations**

| | | |
|---|---|---|
| BP | - | Best Practices |
| COAA | - | Construction Owners Association of Alberta |
| CIDA | - | Construction Industry Development Agency |
| CPD | - | Continuous Professional Development |
| PRRT | - | Project Rework Reduction Tool |
| QC | - | Quality Control |
| QA | - | Quality Assurance |
| RRP | - | Rework Reduction Program |
| RRM | - | Random Rubble Masonry |
| RCC | - | Reinforce Cement Concrete |
| TQM | - | Total Quality Management |