CLASH DETECTION ANALYSIS BETWEEN STRUCTURAL AND ARCHITECTURAL WORKS WITH MECHANICAL ELECTRICAL WORKS IN PROJECT X WITH BIM

Final Project

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INTERNATIONAL CIVIL ENGINEERING PROGRAM

DEPARTMENT OF CIVIL ENGINEERING

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APPROVAL

Final Project

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Have been approved by the Supervisor

Yogyakarta,……..2021

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Have been examined and approved by the examination committee

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It is the result of my own work and not a result of plagiarism of others people's work. Ideas, research data, and quotes directly or indirectly derived from the writings or ideas of others expressly provided in this Final Project. If it is proved later that the Final Project is the results of plagiarism, which I get the certificate would be canceled and I will return to the Rector of the University of Atma Jaya Yogyakarta.

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(Adinda)

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(Adinda)

ABSTRACT

"CLASH DETECTION ANALYSIS BETWEEN STRUCTURE AND ARCHITECTURAL WORKS WITH MECHANICAL ELECTRIKAL WORKS IN PROJECT X WITH BIM", Adinda, Student ID Number 13 13 15096 year of 2020, Construction Management, International Civil Engineering Program, Department of Civil Engineering, Universitas Atma Jaya Yogyakarta.

Building Information Modeling (BIM) defined as a sharable collection of building data, including a three-dimensional (3D) computer model of the entire project or collaborative platform to process produce, communicate and analyze the construction project using a digital information model throughout the project construction. The benefits of BIM in development that can improve project management and coordination with each side, reducing cost and time and increasing broader efficiencies, change the design and construction process, accurate geometric representation of part of the building, improved production quality, better procurement decisions.

The analysis data had been use Revit 2020 and Naviswork from autodesk. Field research was carried out by interview, Bill of Quantity and Shopdrawing. Construction projects located in Balikpapan, North Borneo.

From the result analysis of clash detection and its completion, the total cost of rework Structural and MEP Rp. 9.716.690.00 and the total cost of rework Architecutre and MEP Rp. 65.580.000.

Keywords: BIM, modeling, clash detection analysis, clash category, unit price, cost analysis

TABLE OF CONTENT

CHAPTER II LITERATURE REVIEW

CHAPTER III RESEARCH METHODOLOGY

CHAPTER IV DATA ANALYSIS

LIST OF TABLES

LIST OF APPENDICES