CHAPTER I
INTRODUCTION

1.1 COMMON OBSERVATION

Bridge is a part from history of human development. Bridge existence is beginning with human desire to reach a more fertile area which is location in front of the river, that problem can increase some idea to make a connection to that location. Two big rocks which located in the center of the river is a first idea from a bridge.

From the beginning, using a bridge are was just to relate two places which is separated by a small part of the bridge. But now, the bridge can also use to relate two places which is neither separated by the ocean nor the other line with a long part.

In the development of it, there’s a lot variation shape of bridge, from a simple shape such as bridge with the concrete sheet, bridge with the steel sheet until shape which involved element of art like arch bridge. Right design with live survey for getting files on that area is very important to get a strength and sturdy structure. Shape which is existent could be combinated with the other structure to get a better structure.

The existent of the bridge, now is very important, the bridge not just for supporting the transportation system but it also function for connection something which could increase the value of aesthetics and the value of selling a location.

1.2 BACKGROUND

For developing real estate and also accelerate a traffic in Ngijo Village Karang Ploso, Batu, Malang, it will design a bridge which is suitable with situation and condition in that location. This bridge can also established to increase a value of selling restaurant above the structure.
1.3 AIM AND PURPOSE

Aim and purpose from “Design of Bridge in Karang Ploso, Batu, Malang” are:

- Design a bridge which is suitable with the condition in Ngijo Village Karang Ploso, Batu, Malang
- Analyze and account efficiency of development cost from the bridge

1.4 LOCATION

The location of the bridge is at Ngijo Village Karang Ploso, Batu, Malang.

1.5 SCOPE

Scope of the problem which researched in this bridge design include:

1) Select the bridge type
2) Topography aspect
3) Soil condition aspect
4) Hydrology aspect
5) Traffic aspect
6) Bridge construction aspect
7) Bridge structure account
8) Composing cost estimate plan, that consist of: material prize and fee list, analyze unit prize list, and cost recapitulation.

1.6 SEQUENCE WRITING

In writing the final exam which title is “Design of Bridge in Karang Ploso, Batu, Malang”, there are some chapter, and every chapter can divided into some part. The chapter consist of:

Chapter I Introduction
The content of this chapter are common observation, background, aim and purpose, scope and sequence writing.

Chapter II Literature Study
This chapter consist of theory and design basic which used to solve the problems.
Chapter III  Methodology
This chapter explain about the steps during writing and the method of final exam collection.

Chapter IV  File Analysis
Content of this chapter are the result from primary and secondary files collecting also evaluation about bridge serve grade and give bridge handling conclusion.

Chapter V  Upper Structure Design
This chapter about upper structure analyze, which form are precast concrete beam, railing and floor sheet.

Chapter VI  Restaurant Supporting Structure Design
This chapter about restaurant supporting structure design, which form is steel frame.

Chapter VII  Sub Structure Design
This chapter contain with sub structure design which consist of abutment design and bore pile foundation as useless also reinforcement technic.

Chapter VIII  Work Plan and Work Schedule Regulation
This chapter contain with work plan and the regulation which known as RKS bridge construction schedule.

Chapter IX  Cost Estimate Plan and Time Schedule
This chapter contain with work volume estimate, unit material prize analysis also cost estimate plan.

Chapter X  Ending
This chapter contain with conclusion also the suggestion about this final exam.