ABSTRACT

Structural design steel structure in the calculation of each element of the structure and the same calculation procedure requires precision requires the program to speed up the calculation. Calculations using the Microsoft Excel program is one way to simplify and speed up the calculation is usually done repeatedly in the planning elements of steel structures.

Pamekasan Government Building as a case study in the application of Microsoft Excel application. The planned building using System Frame Ordinary Moment bearers (SRPMB) with equivalent static analysis based on SNI 03-1726-2012. Analysis and dimensional structure using SAP 2000 software tools. Primary structure calculations using the methods of construction steel Frame Load and Resistance factor design (LRFD) and refers to the SNI 03-1729-2002: Planning Procedures for Building Steel Structure, structure calculations under using a system of reinforced concrete which refers to SNI 03-2847-2002: Calculation Procedure for Concrete Structure Building, while the
non-seismic loading can be adjusted to the Indonesian Loading Regulation for Building Construction (PPIUG) 1983. Secondary structures such as plates and stair structure borne namely primary beams and columns. The structure consists of a bottom sloof and pilecap, the pile foundation.

The results of this planning is a form of engineering drawings and calculations aid programs of steel structural elements with Microsoft Excel.

**Keywords**: *Steel Construction, LRFD*