

ABSTRACT

Lateral force analysis is very important in the design of the building. The design for the building is based on capacity design method and analysis to determining the inelastic condition of the structure when receiving lateral load is needed to be done. This condition becomes a consideration on developing buckling restrained braces. The influence of this study to make a comparison between moment resisting frame and buckling restrained braces frame when the inelastic condition is reached. So that we will know the impact from buckling restrained braces in structure building when the elastoplastic limit reached. Elastoplastic condition was evaluated using the static nonlinear (pushover) analysis on SAP2000. Buckling restrained braces analyzed using link elemen on SAP2000 and design of lateral load obtained by static equivalent analyzed.

Keywords : *frame structure, buckling restrained brace, capacity desain, nonlinear, pushover, inelastic, link element, static equivalen*