

ABSTRACT

Beam Column Connection Analysis with Method SNI 2847-2013 and ACI 352R-2002 on Serela Hotel Lampung

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In terms of structural design of reinforced concrete buildings for earthquake-resistant, the beam column connection is a critical area that needs to be accurately designed properly so that the area is able to dissipate energy in the event of an earthquake. The ability of beam-column joint to deform in the inelastic region provides a structure that has a good ductility, so as to minimize the damage caused by earthquake shaking. This study aimed to analyze the relationship beam-column design at Building Serela Lampung Hotel , which refers to SNI 2847-2013 and Methods ACI 352R-2002

In the analysis, the existing shear force on beam-column joint relationship is greater than the shear forces that are on the beams and columns. Therefore it is necessary that the relationship between the shear reinforcement. From a review of existing columns and beam size is sufficient to carry the shear forces that occur. There are differences between the results of the review of planning method SNI 2847-2013 and methods ACI 352R-2002. From the results obtained with SNI 2847-2013 shear force to review the interior, roof interior, exterior, roof exterior, corner, and roof corner sequentially as follows: 1682.544 KN; 1380.365 KN; 607.759 KN; 364.932 KN; 607.759 KN; 364.932 KN. While the method of ACI 352R-2002 as follows: 1712.750 KN; 1440.799 KN; 632.642 KN; 413.498 KN; 632.642 KN; 413.498 KN. Although both methods are considered safe in the planning of the object of study Serela Lampung Hotel but in general planning methods ACI 352R-2002 a higher level of safety and efficiency in terms of planning method SNI 2847-2013 even greater levels of efficiency.

Keywords: SNI 2847-2013, ACI 352R-2002, joint, beams, columns, seismic load, shear force, inelastic.