DESIGN MODIFICATION TERANG BANGSA SCHOOL BUILDING STRUCTURE ON EARTHQUAKE REGION 5 USING SPECIAL MOMENT RESISTING FRAME SYSTEM

Nama Mahasiswa : Harys Hutahaean
NRP : 3105 100 117
Jurusan : Teknik Sipil FTSP-ITS
Dosen Pembimbing : Ir. Kurdian Suprapto, MS.

Abstrak

Terang Bangsa school Structure Building has been planned with the selection medium earthquake area, according to the condition of the city of the Semarang and the surrounding areas. This modified structure of the building is designed and applied again to the area that has a high risk earthquake (earthquake Region 5) using special moment resisting frame system (SMRFS).

The Modifications for this building were, number of floor from 8 floor became 10 floor, additional room to elevator. This Building Designed based on "Tata Cara Perencanaan Perhitungan Struktur Beton Untuk Bangunan Gedung (SNI 03-2847-2002)" and "Tata cara Perencanaan Ketahanan Gempa Untuk Bangunan Gedung (SNI 03-1726-2002)."Gempa Untuk Bangunan Gedung (SNI 03-1726-2002)."

Results of planning the structure of the building Terang Bangsa School consists of concrete portal with diameter 25 mm (D25) main reinforced, diameter 10 mm (Ø 10) shear reinforced for beam and diameter 12 mm (Ø 12) shear reinforced for column, the roof is designed using the
plate and the concrete foundation using precast concrete pile foundation.

Keywords: Modification, Special Moment Resisting Frame.