

**QUALITY CONTROL ELEMEN STRUKTUR DINDING GESER (SHEAR
WALL) PROYEK PEMBANGUNAN GEDUNG RUMAH SAKIT KASIH IBU
SURAKARTA**

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INTISARI

Rumah Sakit Kasih Ibu Surakarta sedang merekonstruksi gedung utara yang semula 1 lantai menjadi 14 lantai. Pada pembangunan tersebut, terdapat elemen struktur dinding geser yang krusial keberadaannya. Dinding geser bertujuan meminimalisir risiko roboh sewaktu terjadi bencana gempa, maka dari itu dinding geser berperan sebagai pengaku gedung. Pengerjaan dinding geser tidak boleh sembarangan, perlu adanya *quality control* agar hasilnya sesuai yang diharapkan.

Tugas Akhir ini membahas *quality control* elemen struktur dinding geser. Pembahasan ini berisi perbandingan antara standar nasional terkait pengujian tekan beton dengan nilai hasil uji lab kuat tekan beton, perbandingan standar nasional terkait pengujian tarik baja tulangan dengan nilai hasil uji lab kuat tarik baja, dan metode pelaksanaan. Metode pelaksanaannya ialah kesesuaian pembesian dinding geser terhadap RKS dan bekisting serta perkuatannya.

Nilai minimum pengujian kuat tekan beton sebesar 25,61 MPa, nilai tersebut memenuhi ketentuan nilai di RKS karena $f_c' > 25$ MPa. Hasil uji tarik baja D16 dan D25 memiliki nilai tegangan leleh minimum sebesar 473,76 MPa, nilai ini termasuk klasifikasi Baja 420B karena warna permukaan alas dan nilai regangan memenuhi jenis baja tersebut. Pembesian di lapangan sudah sesuai RKS, yaitu tulangan utama D25 dan tulangan horizontal D16 dengan jarak maksimum antar tulangan sebesar 2 cm. Bekisting yang digunakan berjenis pelat baja dan perkuatan bekisting terdiri dari *tie rod* serta *wingnut* dengan jarak bervariasi.

Kata Kunci: dinding geser, *quality control*, tekan beton, tarik baja, benda uji beton

**SHEAR WALL STRUCTURAL ELEMENT QUALITY CONTROL OF
KASIH IBU HOSPITAL BUILDING PROJECT SURAKARTA
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ABSTRACT

Kasih Ibu Hospital in Surakarta is currently reconstructing the north building, which originally had 1 floor to 14 floors. In this development, there are structural elements of shear walls which are crucial to their existence. The shear wall aims to minimize the risk of collapsing during an earthquake, therefore the shear wall acts as a stiffener for the building. Work on shear walls should not be arbitrary, it is necessary to have quality control so that the results are as expected.

This final project discusses the quality control of shear wall structural elements. This discussion contains a comparison between national standards related to concrete compressive testing with concrete compressive strength lab test results, a comparison of national standards related to tensile testing of reinforcing steel with tensile strength lab test results of steel, and implementation methods. The implementation method is the conformity of the shear wall reinforcement to the RKS and formwork and their reinforcement.

*The minimum value of the concrete compressive strength test is 25.61 MPa, this value meets the RKS value determination because $f_c' > 25$ MPa. The results of the tensile test for D16 and D25 steels have a minimum yield stress value of 473.76 MPa, this value includes the 420B Steel classification because the color of the base surface and the strain value comply with the type of steel. The reinforcement in the field is in accordance with the RKS, namely D25 main reinforcement and D16 horizontal reinforcement with a maximum distance between reinforcement of 2 cm. The formwork used is of the steel plate type and the formwork reinforcement consists of tie rods and wingnuts with varying spacing. **Keywords:** shear wall, quality control, concrete compression, steel tensile, concrete specimens.*