

INTISARI

Sistem plambing adalah bagian yang tidak dapat dipisahkan dari bangunan gedung bertingkat. Sistem plambing dipergunakan untuk menyediakan air bersih dan membuang air kotor/air buangan ketempat yang telah ditentukan tanpa mencemari bagian-bagian terpenting lainnya. Perancangan dan pembangunan gedung Pascasarjana perlu memperhatikan sistem instalasi pembuangan air kotor/air bekas ke seluruh pembuangan akhir baik septictank atau pun sumur peresapan. Perancangan ini bertujuan untuk mendapatkan hasil rancangan yang akan menghasilkan sistem instalasi perpipaan yang lebih efektif dan efisien.

Metode perancangan ini meliputi: Pengumpulan data dilapangan, penentuan jumlah karyawan dan mahasiswa yang berkeperluan didalam Gedung Pascasarjana, penentuan diameter pipa air kotor/bekas, jalur plambing pada gedung, perhitungan sistem instalasi air bekas dari wastafel, perhitungan sistem instalasi air kotor keseluruhan, dan sistem sanitasi.

Dari hasil perancangan ulang sistem instalasi air kotor/bekas Gedung Pasca Sarjana Berlantai Empat yang telah dilakukan dapat ditarik kesimpulan bahwa jumlah alat plambing hasil rancangan ulang ini lebih banyak dari jumlah alat plambing di lapangan. Beberapa ukuran diameter yang lebih besar, karena terdapat penambahan jumlah alat plambing.

secara umum hasil rancangan ulang ini tidak sesuai dengan hasil di lapangan.

Kata Kunci : sistem *plumbing*, instalasi air bekas/kotor, debit air buangan

**REDESIGNING WATER PIPE INSTALLATION SYSTEM of DIRTY and
USED WATER in POSTGRADUATE BUILDING
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Abstract

Plumbing system is an inseparable part of a multi-storey building. Besides, the plumbing system is used to provide clean water and dispose of sewage or waste water at a predetermined place without polluting other important parts. Also, the design and construction of a postgraduate building needs to pay attention to the installation system of sewage disposal or used water to all final disposals either septic tanks or infiltration wells. Therefore, the design of the research aims to get a design that will produce a more effective and efficient piping installation system.

In this research, it discussed the methodology used by the researcher in this study. This design method in this study included about collecting data in the field, determining the number of employees' and students' needs in the postgraduate building, determining the diameter of dirty or used water pipes, plumbing paths in the building, calculating used water installation systems from the sink, calculating the overall dirty water installation system, and system sanitation. Thus, several theories were also included in this study to support the methodology in this study.

Regarding the results of the redesigning towards the dirty water installation system or the former on four-floor post-graduate building which had been carried out, the number of plumbing tools which had been redesigned were more than the number of plumbing tools in the field. Besides, some diameter sizes were huge because it provided additional numbers of plumbing tools. Consequently, in general, the results of the redesign are as same as field results.

Keywords: Plumbing system, installation of used or dirty water, discharge of waste water