

Angga Kharisma Pradika Putra, 2015. Perencanaan Penanggulangan Kebakaran di Rumah Susun Penjaringan Sari Rungkut Surabaya. Skripsi ini dibawah bimbingan Drs. Trisnadi W. C. P., M. Si dan Nur Indradewi Oktavitri, S. T., M. T. Program Studi S-1 Ilmu dan Teknologi Lingkungan, Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga.

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## ABSTRAK

Perencanaan ini bertujuan untuk merencanakan penanggulangan kebakaran di Rumah Susun Penjaringan Sari Rungkut Surabaya. Perencanaan berdasarkan hasil evaluasi kondisi fasilitas penanggulangan kebakaran di Rumah Susun Penjaringan Sari Rungkut Surabaya. Perencanaan penanggulangan kebakaran dibagi menjadi 2 sistem *fire hydrant*. Sistem tersebut meliputi *sprinkler*, *fire hose reel* dan *pole hydrant*. Perencanaan penanggulangan kebakaran meliputi perencanaan peralatan pemadam kebakaran, penentuan daya tampung dan dimensi *reservoir*, penentuan jenis pompa, penentuan jalur evakuasi dan titik kumpul, perhitungan *Bill Of Quantity (BOQ)*, dan perhitungan rancangan anggaran biaya (RAB). Peralatan pemadam kebakaran yang direncanakan antara lain, penambahan alat pemadam api ringan (APAR), pemasangan sistem *sprinkler*, peletakan *fire hose reel* dan *pole hydrant*. Hasil perencanaan didapatkan untuk penambahan alat pemadam api ringan (APAR) berjumlah 24 buah, *sprinkler* berjumlah 942 buah, *fire hose reel* berjumlah 24 buah, *pole hydrant* berjumlah 6 buah, kapasitas *reservoir* sebesar 673,47 m<sup>3</sup>, dan pompa berjumlah 6 buah. Tangga evakuasi menggunakan tangga yang tersedia di gedung, Titik kumpul evakuasi direncanakan akan di arahkan menuju taman kunang-kunang karena kurangnya lahan kosong yang tersedia di sekitar lokasi rumah susun. *BOQ* yang dihitung berupa *BOQ* peralatan pemadam kebakaran, *BOQ* pipa, *BOQ* aksesoris pipa, *BOQ reservoir*, *BOQ* pompa, *BOQ* jalur evakuasi dan titik kumpul. RAB keseluruhan sebesar Rp.2.064.964.438.

**Kata kunci:** APAR, *BOQ*, evakuasi, peralatan pemadam kebakaran, pompa, RAB, *reservoir*.

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### ABSTRACT

This planning aimed to plan for fire prevention in the Flats of Penjaringan Sari, Rungkut, Surabaya. Fire prevention planning based on results of evaluation condition fire prevention facilities. Fire prevention planning is divided into 2 system. Each system includes sprinkler, fire hose reel and pole hydrant. Fire prevention planning of fire fighting equipment, the determination of reservoir dimension, pump type, evacuation routes and rallying points, calculation of bill of quantity (BOQ), and calculation of the cost budget plan (RAB). The planning of fire fighting equipment is addition fire extinguisher (APAR), laying or plotting sprinkler, laying or plotting fire hose reel, laying or plotting pole hydrant. The result of planning obtained for the addition of a fire extinguisher (APAR) totaled is 24 units, sprinkler totaled is 942 units, fire hose reel totaled is 24 units, pole hydrant totaled is 6 units, capacity of reservoir amounting to 673,47 m<sup>3</sup>, and pump totaled is 6 units. Evacuation stairs using the existing stairs in the building, for the evacuation rallying point totaled is 1 in kunang-kunang park. BOQ in the form of BOQ fire extinguishers, BOQ pipe, BOQ pipe accessories, BOQ reservoir, BOQ pump, BOQ evacuation routes and meeting points. RAB was Rp.2.064.964.438.

**Key words:** APAR, BOQ, evacuation, fire fighting equipment, pump, RAB, reservoir.