

ABSTRAK

Judul : Perbandingan Biaya Turap jenis *Soldier Pile*, *Corrugated Concrete Pile*, *Steel Sheet Pile* pada Proyek Apartemen Sentra Timur Tower 3 (*Sapphire*), Jakarta, Angga Yuhendra, 41117120121, Budi Santosa, ST, MT. , 2018

Konstruksi Ground Water Tank sangat umum digunakan untuk pembangunan gedung-gedung bertingkat tinggi. Turap merupakan metode turap tanah galian untuk mencegah terjadinya keruntuhan dinding galian pada saat pelaksanaan. Proyek Apartemen Sentra Timur Tower 3 (Sapphire) terdapat Pekerjaan Galian Ground Water Tank yang berdekatan dengan bangunan eksisting dan saluran pembuangan utama bangunan sekitar yang berjarak hanya ± 2 meter dan galian dilakukan sedalam 7 meter, sehingga pada saat pelaksanaan galian memiliki dampak galian tidak dapat memperoleh sudut kemiringan yang aman pada saat melakukan galian. Oleh karena itu galian hanya bisa dilakukan dengan posisi dinding galian tegak lurus dan diberi turap tanah sehingga bangunan eksisting dan saluran eksisting tidak runtuh. Berdasarkan Site Plan Pelaksanaan Proyek Apartemen Sentra Timur Tower 3 (Sapphire), lokasi area pekerjaan berada di area pemukiman warga dan penghuni apartemen yang sering complain terhadap bisingnya pelaksanaan proyek. Penelitian ini menggunakan metode kualitatif. Penelitian kualitatif adalah penelitian tentang riset yang bersifat deskriptif cenderung menggunakan analisis harga satuan. Penelitian dilakukan dengan mengumpulkan data sesuai keadaan di lapangan, data diambil dari data teknis lapangan, pengamatan lapangan, wawancara serta diskusi dengan pihak terkait pada proyek tersebut.

Menurut perhitungan biaya pelaksanaan, turap Soldier Pile dan turap Corrugated Concrete Sheet Pile memiliki selisih biaya Rp. 171.824.800,00.-, turap Soldier Pile dan turap Steel Sheet Pile memiliki selisih biaya Rp. 41.592.500,00.-, turap Steel Sheet Pile dan turap Corrugated Concrete Sheet Pile memiliki selisih biaya Rp. 130.232.300,00.-, dengan biaya pelaksanaan terendah yaitu turap Soldier Pile sebesar Rp. 340.030.300,00.-. Dari efek metode pelaksanaan terhadap lingkungan dan Site Plan, turap jenis Soldier Pile memiliki metode yang cocok karena tidak memerlukan peralatan yang cukup banyak dan pekerjaan ini tidak menimbulkan kebisingan dan getaran yang cukup besar dan tidak membahayakan bagi penduduk sekitar area proyek.

Kata kunci: *Galian Dalam, Turap, Soldier Pile, Corrugated Concrete Pile, Steel Sheet Pile, Biaya, Site Plan*

ABSTRACT

Title: Comparison of Soil / Plasterboard Type Piles, Corrugated Concrete Piles, Steel Sheet Piles of Usage and Cost Methods, Angga Yuhendra, 41117120121, Budi Santosa, ST, MT. , 2018

Ground Water Tank construction is very commonly used for the construction of high-rise buildings. Turap is a method of protection of excavated soil to prevent the collapse of excavation walls during implementation. Sentra Timur Apartment Project 3 (Sapphire) there is a Ground Water Tank Excavation adjacent to the existing building and the main sewer around the building which is only ± 2 meters and the excavation is 7 meters deep, so that when the excavation has an impact it cannot obtain a safe tilt angle when passing through. Therefore excavation can only be done with the position of the excavation wall perpendicular and given soil protection so that existing buildings and existing channels do not collapse. Based on the Site Plan for the Implementation of the Sentra Timur Apartment 3 (Sapphire) Apartment Project, the location of the work area is in residential areas and apartment residents who often complain about the noise of the project. This study uses a qualitative method. Qualitative research is that research on descriptive research tends to use unit price analysis. The study was conducted by collecting data according to the conditions in the field, data was taken from field technical data, field observations, interviews and discussions with relevant parties on the project.

According to the implementation cost calculation, Soldier Pile and Corrugated Concrete Sheet Pile have a cost difference of Rp. 171,824,800.00 .-, Soldier Pile and Steel Sheet Pile have a cost difference of Rp. 41,592,500.00.-, Steel Sheet Pile and Corrugated Concrete Sheet Pile have a cost difference of Rp. 130,232,300.00.-, with the lowest implementation cost, namely Soldier Pile of Rp. 340,030,300.00.- From the effects of the implementation method on the environment and Site Plan, the type of Soldier Pile has a suitable method because it does not require a lot of equipment and this work does not cause noise and vibration that is large enough and does not endanger the population around the area project.

Keyword: *Inner Excavation, Soil / Plumbing Protection, Soldier Pile, Corrugated Concrete Pile, Steel Sheet Pile, Cost, Site Plan*