

ABSTRACT

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Optimization of Mall Metropolitan Cileungsi Project with Integration Earned Value Method and Time Cost Trade Off

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Key words : earned value, time cost trade off, delays in construction, acceleration project

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The construction project is an activity that is structured and has limitations in the process of completion. Delays in construction projects is something that must be avoided because it will affect the cost and time of completion of the project. Integration of earned value method and time cost trade off can provide assessment and solutions to a late project. Mall Metropolitan Cileungsi Project experiencing delays and losses in the process of implementation, it can be seen from the analysis of earned value with an average value of CPI (Cost Performance Index) and SPI (Schedule Performance Index) at week 20 till week 56 <1 , with at week 25 experienced the worst performance with the identification of schedule variance equal value - Rp8.699.108.544,97 which means that implementation of the project behind schedule and cost variance equal value - Rp8.948.442.380,57 which means that implementation of the project cost higher than the budget. The best solution of acceleration Mall Metropolitan Cileungsi Project is combination composite plate bondek on the work plate structure ground floor, first floor and second floor with additional manpower percentage 67% on completion of the architectural work plat ground floor, first floor and the second floor. The combination of best acceleration produce cost savings of Rp916.891.340,07 or 7.00% less than the normal cost of implementation and reduce the duration of works is 56 days or 42.10% faster than the normal duration of the work plate structure of the ground floor, first floor and second floor as well as 15 days or 10.20% faster than the normal duration for the completion of the architectural work plat ground floor, first floor and second floor.

(Bibliography : 1995 – 2016)