ABSTRAK

Pembangunan gedung dibuat dengan membuat perencanaan pada awal rencana proyek, sehingga pada saat itulah ditentukan jenis gedung serta manfaat yang di inginkan oleh pemilik gedung. Dalam pelaksanaan proyek konstruksi seringkali durasi proyek dipercepat karena kondisi tertentu. Herman Gregory Ballard, dalam disertasinya di tahun 2000, berjudul *The Last Planner System of Production Control* dimana dari penelitiannya menyimpulkan bahwa LPS dapat meningkatkan reabilitas perencanaan di atas 70,00%. Dunia konstruksi di Indonesia saat ini dihadapkan dengan proyek-proyek sangat rumit dan jangka waktu singkat serta dituntut memaksimalkan fungsi dengan skedul tepat waktu, biaya minimal dan kualitas yang baik. Penelitian ini bertujuan mengetahui (a) kondisi pemahaman pekerja proyek berkaitan dengan implementasi metode *Last Planner System* (LPS), *Least Cost Analysis* (LCA) dan proses pengendalian pada proyek bangunan hunian bertingkat tinggi; (b) aplikasi LCA pada proyek bangunan hunian bertingkat tinggi dalam penyelesaian proyek dengan waktu dan biaya sesuai jadwal dan anggarannya; (c) pengaruh analisis metode LPS dan LCA terhadap proses pengendalian dalam penyelesaian proyek bangunan hunian bertingkat tinggi; dan (d) metode LPS dan LCA ini dapat bersinergi dengan baik atau justru saling menjadi penghambat dalam proses pengendalian dalam penyelesaian proyek bangunan hunian bertingkat tinggi

Temuan penelitian adalah: (a) pemahaman pekerja proyek terhadap implementasi LPS, LCA dan proses pengendalian pada proyek bangunan hunian bertingkat tinggi, terkatagori cukup; (b) Implementasi LCA menghasilkan penyelesaian proyek dalam waktu penyelesaian 109 minggu, dan dapat dipercepat menjadi 102 minggu; (c) Pemahaman pekerja proyek mengenai LPS, dan LCA, secara parsial berpengaruh positif signifikan terhadap pemahaman tentang pentingnya proses pengendalian proyek; dan (d) Ada pengaruh sinergetik dari pemahaman pekerja proyek mengenai LPS dan LCA dalam meningkatkan pemahaman tentang pentingnya proses pengendalian proyek.

Kata kunci:LPS, LCA, dan proses pengendalian proyek.

ABSTRACT

Building construction is made by planning at the beginning of the project plan so that at that time, the building owner determines the type of building and the desired benefits. In the implementation of construction projects, the project duration is often accelerated due to certain conditions; for example, the project owner may want the project to be completed earlier than the original plan, or the owner will give a bonus if the project is completed earlier than planned. Herman Gregory Ballard, in his 2000 dissertation entitled The Last Planner System of Production Control. This research aims to find out whether LPS can increase the reliability of work plans with PPC above 70.00%. The study was conducted on several construction projects. This study concluded that LPS could increase planning reliability above 70.00%. Construction of the world in Indonesia today is faced with very complex projects and a short period and is expected to maximize the function of the schedule on time, minimum cost, and high-quality goods. To meet these challenges required a method to enhance the efficiency and effectiveness in increasing competitiveness in the competitive construction industry market. This study aims to determine and examine (a) How the understanding of project workers is related to the implementation of the method Last Planner System (LPS), Least Cost Analysis (LCA), and process control in high-rise residential building projects?; (b) How to apply Least Cost Analysis (LCA) to high-rise residential building projects resulting in project completion on time and cost according to the schedule and budget?; (c) How does the analysis of the LPS & LCA method affect the control process in the completion of high-rise residential building projects?; and (d) Can the method LPS & LCA work well in synergy or can it become an obstacle to each other in the control process in the completion of high-rise residential building projects?The research findings are (a)
understanding of project workers related to the implementation of the method Last Planner System (LPS), Least Cost Analysis (LCA). Furthermore, control process in high-rise residential building projects, categorized as adequate, even close to good; (b) Implementation of Least Cost Analysis (LCA) on high-rise residential building projects resulted in project completion with a completion time of 109 weeks, and with an accelerated time it could be shortened to 102 weeks; (c) The understanding of project workers about LPS, and LCA, partially has a significant positive effect on understanding the importance of process control in every job in the project; and (d) There is a synergistic effect of project workers' understanding of LPS and LCA which can increase understanding of the importance of process control for each job in the project.

Keywords:LPS, LCA, and Project Control Process