

ABSTRACT

Multi Cemerlang Teknik is a workshop runs under Multi Prima company, specifically producing spare parts for metal-based transportation equipment. In order to meet demands, Multi Cemerlang Teknik uses make to order (MTO) system. With the many types of spare parts commonly produced at Multi Cemerlang Teknik workshop, the placement of 18 production facilities including 3 non-production facilities in a total area of 396 m² becomes irregular. This causes a long flow of material displacement and backtracking. The length of distance that the material needed to pass influences the time required to move the material. The method used to design proposed improvements to the facility layout at Multi Cemerlang workshop is CORELAP (Computerized Relationship Layout Planning) algorithm, where facilities are composed based on the closeness rating. By doing this research, a proposed layout will be produced in which it can improve the actual layout so as the distance and time of material transfer can be minimized.

Keywords: Facility layout, planning, CORELAP, ARC