

## ABSTRACT

This project concentrates on applying Systematic Layout Planning (SLP) method for improving the existing plant layout and design a new master plant layout for each batch plant type of the ready mixed concrete products. SLP method is the excellent technique for layout planning. This project focuses in improving and designing the new master plant layout on phase of overall plant layout.

Hanson is one of the largest suppliers of ready mixed concrete products in Thailand. They currently operate 33 of the ready mixed concrete products in any area in Thailand. They continuously investment the new ready mixed concrete products plant to another area in Thailand. To support Hanson's products to their clients the facility layout needs to be implemented by Systematic Layout Planning (SLP) method.

We improve the existing plant layout batch plant type by using SLP method to improve materials flow, space utilization, worker safety and satisfaction and flexibility arrangement. We design the new master plan of each batch type from the selection of the three alternatives of each batch plant type by evaluating alternative for using master plant in the future.

After evaluating the three alternatives for selection the best suitable plant layout of the three alternative of each batch type by weighing their important factors. The highest score of evaluated alternative is the best suitable for improving plant layout and master plan of plant layout of each batch plant type for this project. The alternative II of fixed plant has the highest score of 140 and the alternative III of mobile plant type has the highest of 145. Furthermore, the alternative I for star plant type has the highest score of 155.