DESIGN INTERFACE MANAGEMENT OF AIRPORT PROJECTS

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Abstract

Interface management is the brainchild of project management, which gives a “bird’s eye view” and helps to avoid time overruns, reduces the cost overruns, mitigates the reworks in construction and also gains intangible benefits like customer satisfaction. The 3D modeling and design structure matrix (DSM) method have been the preferred solutions for interface management in the construction industry for some time. But for airport construction, which consists of a huge number of services, it is difficult to carry out interface management with the above methodologies, as it would be time consuming and costly. So, a new project management methodology has been proposed which deals with preparation of a physical interface matrix (PIM) and design interface management matrix (DIMM) from the 2D coordinated drawings, by which one can reduce the problem size and then perform 3D modeling. This leads to visualization of the actual interface problems so they can be mitigated during the design stage itself. This methodology was successfully used in the design development stage of the airport project. This has proved to be effective in mitigating the interface problems at design stage itself and has saved a lot of time and cost.

Keywords

Airport, Design Interfaces, Design Interface Management Matrix, EPC Projects, Physical Interface Matrix, 3D Models.

INTRODUCTION

Wideman’s comparative glossary of project management terms V3.1 (2002) gives two similar definitions for interface management in the civil engineering field. They are:

1) Interface management is the management of communication, coordination and responsibility across a common boundary between two organizations, phases, departments or physical entities which are interdependent.
2) Managing the problems that often occur among people, departments, and disciplines rather than within the project team itself is also interface management.

In essence, interface management is the “glue” that holds a project together. Unless one understands the importance of interface management, the project runs the risk of experiencing cost and time overruns due to rework and redesign.