



Gestione delle fasi progettuali nei progetti Design/Build e Construction Manager/General Contractor

Apertura lavori

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Design-Management for Design-Build and Construction Manager/General Contractor Projects

While the traditional design-bid-build (DBB) approach to project delivery remains prevalent among state departments of transportation (DOTs) and other owners of transportation facilities, some agencies have been selectively adopting alternative delivery methods that increase collaboration among the owner, designer, and constructor. Under the design-build (DB) process, for example, the designer and constructor act as a unified team to deliver a completed project at a set price.

Under a construction manager-at-risk (CMR) process, designer and constructor are engaged separately by the owner (as is the case under DBB), but the constructor is involved from the earliest stages of the design process; the designer and constructor are expected to work collaboratively to deliver a project that meets the owner's requirements. Some agencies have adopted the term Construction Manager/General Contractor (CMGC) for a method that is generally similar to CMR but reallocates risk more reasonably among owner, constructor, and designer. (As used in this research, CMGC is understood to include CMR.) Among the attractions claimed for such alternative project-delivery methods are improved constructability, increased project cost certainty, improved schedule certainty, and actual cost savings.

Experience has shown that policies used to develop and administer traditional design contracts (that is, under DBB) are inadequate for these alternative delivery methods. Therefore, the Transportation Research Board contracted a research team to study these phenomena and develop a guide describing effective design-management practices for owners using CMGC or DB. This team, including researchers from the University of Washington, and the University of Florida plus various consulting engineering firms, was co-directed by Prof. Edward Minchin and Prof. Giovanni Migliaccio. The presentation will include (a) a review and synthesis of recent experience of owners' management of design services under CMGC and DB; (b) critical assessments of the relative merits of alternative approaches to managing key aspects of the design that affect project scope, quality, and cost; and (c) lessons learned from design management under CMGC and DB that may be effectively applied under other project delivery methods.

As co-director of the research team, Prof. Migliaccio will review recent experience of DOTs and other public agencies regarding design management practices used on projects under CMGC, DB, and similar methods for project delivery; and considered relevant experience in other construction industry segments. Considering such issues as liability and responsibility in CMGC and DB project development and measures of effectiveness for design management, the team developed a framework characterizing principal areas where owners' design management practices under CMGC and DB project delivery processes are likely to influence project success. The product is a guide for state DOTs and other transportation agencies on design management under CMGC and DB project delivery. The guide will be published in the NCHRP report series.