Civil Engineering Seminar

CHANGING PROJECT DELIVERY STRATEGY:
AN IMPLEMENTATION FRAMEWORK
FOR THE TRANSPORTATION PROJECT SECTOR

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Abstract:
For organizations such as departments of transportation, other public agencies, or private companies, the adoption of a new approach to procure services for delivery of construction projects requires significant organizational changes; these changes include modifications to both their work processes and existing organizational structures. Because these adjustments encompass many different aspects of the organization’s interests, they must occur for the change initiative to be successfully implemented. Researchers at the Center for Construction Industry Studies are investigating the adoption of innovative project delivery approaches within the transportation project sector in order to better understand the dynamics of this type of organizational change. This seminar will present findings from a study of state transportation agencies that have recently implemented the design-build method for delivering highway projects.

Using as a case study the new $1.3 billion SH 130 tolled expressway project in central Texas, the research team has analyzed project documentation and performed 39 interviews to individuals affiliated with owner, legal counselor, engineering consultant, and contractor. Findings suggest that project representatives institutionalize practices and routines connected to the new approach by adapting to new challenges, rather than by “overwriting” previously existing practices. Consequently, the institutionalization of innovative approaches to project delivery happens concurrently with a deinstitutionalization of the previous approaches. This concurrency produces different effects on the project environment, depending on the mediating action of some emerging industry practices and the perspectives of the involved parties.

Using these findings, the presenter has developed a conceptual framework for helping owner organizations implement a new project delivery approach. This framework has been further enriched by the data from a comparative study of three transportation projects around the United States. In addition, 90 experts in the implementation of the design-build method for transportation projects were identified and invited to participate in a Delphi study to validate and populate the developed framework. Findings from all of these studies will be presented in this seminar, including preliminary findings from the ongoing Delphi study.