



Construction Industry Institute®

Reimbursable Contracts

Construction Industry Institute

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**Prepared by
Construction Industry Institute
Reimbursable Contracts Research Team**

**Research Summary 260-1
July 2011**

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Executive Summary

Specific project characteristics and industry challenges cause owners to consider implementing cost reimbursable contracting strategies. Lack of defined scope, project complexity, owner and contractor staffing considerations, schedule pressures, and risk allocations often compel owners to seek innovative contracting methods to achieve project success. Owners in such environments often seek high-quality contractors to execute a cost reimbursable strategy.

CII Research Team (RT) 260 was commissioned to investigate the reimbursable contracting process, from front-end planning through engineering, contractor selection, execution, and project close-out. Objectives of the research included the following:

1. Identify the elements of the cost reimbursable contracting process that contribute to successful or less-than-successful project outcomes.
2. Establish an effective framework for the key elements of the cost reimbursable contracting process that are likely to affect the success of the contract.
3. Develop a reimbursable contracting manual to provide guidelines for the implementation of key elements of the contracting process.

Building on the work described in CII Research Summary 165-1, *An Owner's Tool for Project Delivery and Contract Strategy Selection*, RT 261 developed questionnaires and conducted interviews with CII member organizations. These questionnaires and interviews investigated risk allocation, contract management, and control in a cost reimbursable setting. The team conducted these investigations through case studies, all designed ultimately to determine best practices for successful reimbursable contracting outcomes. As expected, several case studies identified positive aspects of a cost reimbursable strategy, while others

found negative aspects. The product of these efforts culminated in the development of a comprehensive manual, Implementation Resource (IR) 260-2, *CII Guide to Reimbursable Contracting*.

Geared toward less experienced members of owner and contractor project teams, the guide defines several reimbursable contracting strategies and outlines a process to help owners select the strategy and the contractor most suitable for particular types of projects. The guide also provides suggestions for allocating the risk between project parties, and identifies the differences between lump sum and reimbursable contracting. Further, it offers assistance to owners in the contract development process.

One of the key findings shows the importance of providing clear definition of the cost reimbursement compensation structure. Once this structure is established, experienced personnel and strong project controls become the essential components of successful project execution. The guide provides helpful considerations and sample language to achieve this objective. Case study findings are interspersed throughout the guide, describing both positive and negative outcomes. These case study descriptions demonstrate pitfalls to avoid, as well as key elements to incorporate into contracts and considerations for their implementation. The guide also recommends the assignment of personnel with experience in cost reimbursable contracting. Such staffing—combined with transparency and integrated owner-contractor decision making—increases the potential for successful reimbursable contracting outcomes.

Introduction

Fortunately, there are many owners and contractors who have engaged in cost plus contracting for several years, and much can be learned from their experience. Because owners will inevitably face a steep learning curve when they employ unfamiliar contracting strategies, there is a critical need to identify and share the best practices and lessons learned from the owners and contractors who are experienced at implementing cost reimbursable contracts.

Purpose of the Research Team 260

In 2008, the Construction Industry Institute (CII) established Research Team (RT) 260 in order to investigate the success factors for reimbursable contracts. The team addressed the following essential research question: ***What makes a reimbursable contract successful for both the owner and the contractor?*** In order to address this question, the research team developed two specific goals for this research:

1. Differentiate reimbursable contracting from lump sum contracting for engineering/ procurement/construction (EPC) projects.
2. Identify characteristics of successful reimbursable contracting practices used on EPC projects.

To accomplish the goals, the following specific objectives were identified:

- Identify and define the key factors that distinguish reimbursable contracts from lump sum contracts.
- Identify the factors that influence the successful implementation and outcome of reimbursable contracts.
- Identify variations in reimbursable contracting commercial models and determine how these variations affect all stages of the reimbursable contracting process.
- Develop guidance and tools for implementing reimbursable contracts to improve the chances for a positive outcome.

- Formulate best practices and lessons learned for implementing reimbursable contracts, and identify the expected outcomes of effective implementation.
- Produce a guide to help CII member organizations select and implement reimbursable contracting practices on EPC projects, or improve the implementation processes they already use for these practices.

The research team used a variety of research tools—i.e., questionnaires, case studies, and expert elicitation—to differentiate between reimbursable contracting and lump sum contracting and to identify the characteristics of successful reimbursable contracting practices. The resulting product, Implementation Resource (IR) 260-2, *CII Guide to Reimbursable Contracting*, gives both owners and contractors guidance on the contractual and managerial structures that contribute to successful reimbursable projects. Organizations will be able to use the results to implement reimbursable contracts so that owners and contractors alike can remain competitive, regardless of market conditions.

Methodology

Literature Review

The research team conducted a literature review, investigating previous CII research and other studies. This review identified concepts, procedures, practices, elements, and success/failure factors associated with reimbursable contracting practices. The team found numerous articles documenting the successful use of the cost reimbursable approach and its many formats. Based on these findings and the expertise of individual team members, the team developed a preliminary framework of the elements of the reimbursable contracting process that are most likely to affect the success of the contract. (See Figure 1.) Nine sub-teams were formed to write the first draft of *CII Guide to Reimbursable Contracting*, the core chapters of which were based on this preliminary framework. This framework was also used for conducting the case studies. As illustrated in Figure 1, the framework includes six major phases of the reimbursable contracting process. Each of these phases is discussed in detail in different chapters of the guide. A total of 12 key success factors for the reimbursable contracting process have been identified during these phases. (See Chapter 3 of the guide.)

Data Collection

To accomplish the research goals, a team of over 20 construction contracting professionals was assembled to help the academic members form the research work plan and collect the data. The research team initially outlined the reimbursable contracting process and assisted with the development of data collection tools. The team ultimately used a variety of case studies, questionnaires, and the CII Benchmarking and Metrics (BM&M) database to gather data.

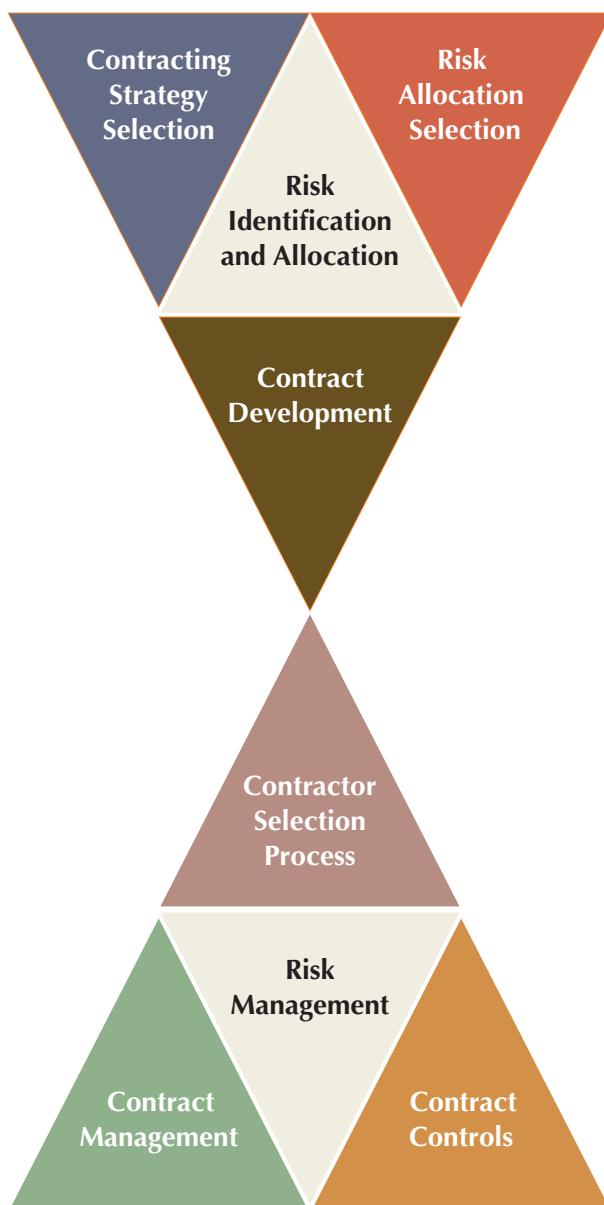


Figure 1. Framework of the key elements of the cost reimbursable contracting process

Databases were used to 1) identify the factors that contribute to successful outcomes for both owners and contractors, 2) identify effective structures for the cost reimbursable project elements (i.e., controls and management), 3) differentiate between reimbursable contracting and lump sum contracting, and 4) develop a reimbursable contracting guide to help owners and contractors implement reimbursable contracting.

Case Studies: Summer 2009

The team conducted case studies with eight companies in five different industry sectors. As Figure 2 illustrates, nearly half of the participants came from companies in petrochemical and chemical industries. To facilitate the case study interview process, the team developed an interview guide consisting of eight sections: 1) general questions about the contracting strategy; 2) contracting strategy selection; 3) risk allocation; 4) contractor selection process; 5) contract development; 6) contract management; 7) project controls; and 8) completion and closeout. The specific questions asked in each section focused on identifying how reimbursable contracting differs from the lump sum approach and isolating the factors that make reimbursable contracting successful for all parties.

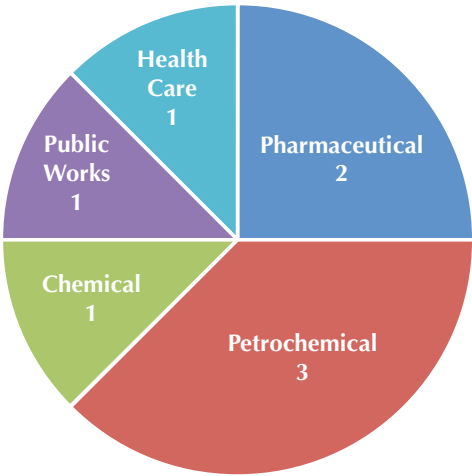


Figure 2. Distribution of industries participating in the case studies

To solicit participation, the team developed a case study nomination form and an invitation letter, and distributed them to team members and to points of contact within all CII member companies. Initially, the researchers were seeking joint participation from an owner company and a contractor company who had together completed work under a reimbursable contract. Five owner-contractor pairs agreed to participate in a day-long case study interview. To collect basic information about the projects before conducting the case study interviews, a pre-interview questionnaire was used in conjunction with face-to-face interviews.

Validation Questionnaire

Once the case studies were concluded, the team developed a validation questionnaire and distributed it to all research team members. The questions in this instrument were similar to those in the case study guide, but focused on certain questions that the researchers felt needed further elucidation. A total of seven companies responded to the validation questionnaire.

Case Studies: Summer 2010

After analyzing the case study and questionnaire data, the team conducted additional focused case study interviews to collect more detailed data on a few specific topics, e.g., contractor selection and project controls. Three companies agreed to participate in these focused case studies, each of which lasted about two hours and involved a brief, specific set of questions.

Comprehensive Questionnaire

In order to collect additional data on reimbursable contracts, particularly those with less-than-successful outcomes, the team used a comprehensive questionnaire to complement the case studies. This questionnaire consisted of easy-to-answer, check-the-box questions, investigating the reimbursable contracting practices of participating companies. To solicit participation, the team developed and distributed