

GUIDE FOR **CONSULTANT CONTRACTING**



MARCH 2008



**AMERICAN ASSOCIATION OF STATE
HIGHWAY AND TRANSPORTATION OFFICIALS**

© 2008, by American Association of State Highway and Transportation Officials. All rights reserved. This book, or parts thereof, may not be reproduced in any form without written permission of the publisher. Printed in the United States of America.

Publication Code: DS-GCC-1

ISBN: 978-1-56051-401-5

American Association of State Highway and Transportation Officials Executive Committee 2007–2008

President: Pete Rahn, Missouri

Vice President: Allen D. Biehler, P.E., Pennsylvania

Secretary/Treasurer: Carlos Braceras, Utah

Regional Representatives

REGION I

David A. Cole, Maine, One-Year Term

Kris Kolluri, New Jersey, Two-Year Term

REGION II

Stephanie Kopelousos, Florida, One-Year Term

Butch Brown, Mississippi, Two-Year Term

REGION III

Debra Miller, Kansas, One-Year Term

Kirk Steudle, Michigan, Two-Year Term

REGION IV

Gary Ridley, Oklahoma, One-Year Term

Rhonda Faught, New Mexico, Two-Year Term

Non-Voting Members

Immediate Past President: Victor M. Mendez, Arizona

Executive Director: John Horsley, Washington, D.C.

2007–2008

Subcommittee on Design

Chair: Carolann D. Wicks, Delaware
Vice-Chair: Richard Land, California
Secretary: Dwight A. Horne, FHWA
AASHTO Liaison: Jim McDonnell, AASHTO

Alabama

William Adams
Rex Bush
Steven E. Walker

Alaska

Robert Campbell
Mark Neidhold

Arizona

Mary Viparina

Arkansas

Charles D. Clements
Phillip L. McConnell

California

Mark Leja

Colorado

Tim Aschenbrener

Connecticut

Micahel W. Lonergan
James H. Norman

Delaware

Michael F. Balbierer
James M. Satterfield
Michael H. Simmons

District of Columbia

Zahra Dorriz
Allen Miller
Kathleen Linehan
Penney

Florida

James Mills
David O'Hagan

Georgia

James "Ben" Buchan
Brent Story

Hawaii

Julius Fronda

Idaho

Damon Allen
Loren D. Thomas

Illinois

Eric E. Harm

Indiana

Merril E. Dougherty
Gary Mroczka

Iowa

Michael J. Kennerly
David L. Little
Deanna Maifield

Kansas

Richard G. Adams
Lamonte C. Armstrong
James O. Brewer

Kentucky

Jeff D. Jasper
David Kratt
Robert D. Martin

Louisiana

Nicholas Kalivoda
Lloyd E. Porta

Maine

Todd Pelletier

Maryland

Robert D. Douglass
Kirk G. McClelland

Massachusetts

Stanley Wood

Michigan

Mark A. Van Port Fleet

Minnesota

Mukhtar Thakur

Mississippi

David Foster
C. Keith Purvis
John M. Reese

Missouri

Kathryn P. Harvey
David B. Nichols

Montana

Paul R. Ferry
Lesly Tribelhorn

Nebraska

James J. Knott
Ted Watson

Nevada

Daryl N. James
Paul K. Sinnott

New Hampshire

Craig A. Green

New Jersey

Richard W. Dunne
Kiran B. Patel
Brian J. Strizki

New Mexico

Gabriela Contreras-
Apodaca
Joe S. Garcia
Dennis R. Valdez

New York

Daniel D'Angelo
Richard W. Lee

North Carolina

Deborah M. Barbour
Jay A. Bennett
Art McMillan

North Dakota

Mark Gaydos

Ohio

Dirk Gross
Timothy McDonald

Oklahoma

Tim Tegeler

Oregon

Steven R. Lindland
David Joe Polly

Pennsylvania

R. Scott Christie
Brian D. Hare

Puerto Rico

José E. Santana-
Pimentel
Luis Santos

Rhode Island

J. Michael Bennett

South Carolina

Mark Lester
Matt Lifsey
John V. Walsh

South Dakota

Michael Behm
Mark A. Leiferman

Tennessee

Michael Agnew
Jeff C. Jones

Texas

Mark A. Marek

Utah

Michael Fazio
James C. McMinimee

Vermont

Kevin Marshia

Virginia

Robert H. Cary
Mohammad Mirshahi
Barton A. Thrasher

Washington

Richard Albin
Pasco Bakotich

West Virginia

Gregory Bailey
Jason C. Foster

Wisconsin

Jerry H. Zogg

Wyoming

Paul P. Bercich
Tony Laird

Alberta

Allan Kwan

British Columbia

Richard Voyer

FAA

Rick Marinelli

N.J. Turnpike Authority

J. Lawrence Williams

Ontario

Joe Bucik

**Port Authority of NY
and NJ**

Scott D. Murrell

Saskatchewan

Sukhy Kent

USDA Forest Service

Ellen G. LaFayette

2007–2008 Technical Committee on Preconstruction Engineering Management

Chair	Robert H. Cary	Virginia	Region 2
Vice Chair	Barry Horst	Missouri	Region 3
	David J. Azzato	Pennsylvania	Region 1
	Kevin Marshia	Vermont	Region 1
	Deborah M. Barbour	North Carolina	Region 2
	Robert I. Pratt	South Carolina	Region 2
	Richard G. Adams	Kansas	Region 3
	Jeff Clanton	Indiana	Region 3
	Mukhtar Thakur	Minnesota	Region 3
	Nigel Blampied	California	Region 4
	Tim Gatz	Oklahoma	Region 4
	Thomas J. Lauer	Oregon	Region 4
	Saeed Choudhary	Ontario	Other

Table of Contents

EXECUTIVE SUMMARY	xi
CHAPTER 1: INTRODUCTION—USING CONSULTANTS	1
1.1 State Surveys	1
1.2 Consultant Surveys	3
1.3 Chapter Overviews.....	4
1.4 Conclusion.....	6
CHAPTER 2: AGENCY CONSIDERATIONS	7
2.1 Need for Consulting Engineering Services.....	7
2.2 Structure Types	8
2.2.1 Centralized for Contract Administration Only	8
2.2.2 Centralized for All Aspects of Contracting	8
2.2.3 Decentralized	8
2.2.4 Consultant Managed Contracting.....	9
2.2.5 Combination	9
2.3 Roles and Responsibilities	9
2.4 Resource Requirements	10
2.5 Training	10
CHAPTER 3: CONSULTANT PROGRAM	13
3.1 Setting Up a Consultant Program	13
3.2 Types of Consulting Services.....	14
3.3 Consultant Selection	15
3.4 Legal Contract.....	15
3.5 Consultant Audits	16
3.6 Managing Consultant Program	16
3.7 Industry Liaison	16
CHAPTER 4: SELECTING CONSULTANTS	17
4.1 Selection	17
4.2 Selection Methods	18
4.2.1 Competitive Selection	18
4.2.2 Noncompetitive Selection	19
4.2.3 Selection/Assignment of “On-Call” Contracts	19
4.2.4 Competitive Bidding	19
4.2.5 Value-Based Selection	20
4.3 Identify Need, Establish Preliminary Scope and Schedule, and Procure Consultant	20
4.3.1 Establish Selection Committee	21
4.3.2 Establish Selection Criteria	21
4.3.3 Qualifying/Pre-Qualifying	23
4.3.4 Request Statement of Interest or Qualifications (RFQ).....	23

4.3.5	Review Responses and Develop Short List	24
4.3.6	Pre-Proposal Scoping Conference.....	24
4.3.7	Request for Technical Proposal—Request for Proposals (RFP).....	24
4.3.8	Receive and Evaluate Technical Proposals/Conduct Interviews (Optional)	25
4.3.9	Final Ranking, Approval and Notifications.....	25
4.4	Other Selection Methods.....	25
CHAPTER 5: NEGOTIATING AND CONTRACTING		27
5.1	Contract Type	27
5.1.1	Project Specific Contracts	27
5.1.2	Multiphase Contracts	28
5.1.3	On-Call Contracts	28
5.2	Payment Methods	28
5.2.1	Cost Plus Fixed Fee	29
5.2.2	Lump Sum	30
5.2.3	Cost per Unit of Work	30
5.2.4	Specific Rates of Compensation	30
5.2.5	Variances	31
5.3	Audits	31
5.3.1	Preaward Audits	31
5.3.2	Audits of Subconsultants	31
5.3.3	Final Audits.....	32
5.4	Detailed Scope of Services	32
5.5	Negotiate a Contract	33
5.5.1	Direct Payroll.....	33
5.5.2	Escalation	34
5.5.3	Premium Pay	34
5.5.4	Work Shift Differential	34
5.5.5	Indirect Costs	34
5.5.6	Direct Costs Other Than Payroll	35
5.5.7	Fixed Fee or Profit.....	35
5.5.8	Costs by Subconsultants.....	35
5.5.9	Non-Professional Services.....	36
5.6	Negotiation Guidelines for Methods of Payment	36
5.6.1	Engineer’s Independent Estimate	36
5.6.2	Cost Plus Fixed Fee.....	37
5.6.3	Specific Rate of Compensation	37
5.6.4	Lump Sum and Cost per Unit of Work	37
5.6.5	Agency Certification.....	38
5.7	Contract Language.....	38
5.7.1	Definitions.....	38
5.7.2	Errors and Omissions	38
5.7.3	Indemnity (Liability)	39
5.7.4	Insurance	39

5.7.5	Key Personnel	40
5.7.6	Dispute Resolution	40
5.7.7	Disadvantaged Businesses.....	40
5.7.8	Extensions, Modifications, and Terminations.....	40
5.7.9	Subconsultants	41
5.7.10	Special Considerations	41
5.8	Legal Review	41
5.9	Contract Execution.....	42

CHAPTER 6: MANAGING CONSULTANTS.....43

6.1	Agency Project Manager Responsibilities	45
6.2	Authority.....	46
6.3	Communication	46
6.4	Technical Monitoring (Scope of Services and Technical Compliance)	47
6.4.1	Project Management System	47
6.4.2	Electronic Transfer of Technical Data	47
6.4.3	Progress Reports.....	47
6.4.4	Quality Control and Quality Assurance.....	48
6.4.5	Scheduled Review Meetings.....	48
6.4.6	Performance Evaluations.....	48
6.4.7	Budget Control.....	49
6.5	Key Personnel.....	49
6.6	Disputes.....	50
6.7	Post-Design Services	50
6.8	Errors and Omissions.....	51
6.9	Administrative Monitoring (Contract Terms and Conditions)	53
6.10	Maintaining the Contract File.....	53
6.11	Notice to Proceed	53
6.12	Stop-Work Notification	54
6.13	Payment Control	54
6.14	Modifications.....	55
6.15	Subconsultants and Other Service Providers	56
6.16	Retainage.....	56
6.17	Final Deliverables.....	56
6.18	Contract Closeout.....	57
6.19	Performance Measures	57

APPENDICES

Appendix A	—Summary of Responses to the State Questionnaire.....	59
Appendix B	—Summary of Responses to the Consultant Questionnaire	77
Appendix C	—Consultant Contracts.....	91
Appendix D	—Consultant Evaluations.....	121
Appendix E	—Training for Agency Staff.....	133

FIGURES

Figure 1-1. Consultant Selection Process..... 2
Figure 6-1. Progress Report.....48
Figure 6-2. Flowchart Demonstrating Potential Design Errors and Omissions.....52

TABLES

Table 6-1. Example of a Responsibility Assignment Matrix.....50

Executive Summary

The use of engineering consultants by state transportation agencies continues to be important in providing the appropriate solutions to transportation needs. This publication replaces the *Guide for Contracting, Selecting and Managing Consultants in Preconstruction Engineering*, published by AASHTO in 1996.

In order to assess current practices, questionnaires were developed for both state and consultant practitioners. The responses showed significant growth in the volume of work done by consultants and in the range of services provided by consultants. The results of these surveys, along with the collective experience and expertise of the technical committee membership, were used to restructure much of the guide and to update and expand the discussion of current practices for the effective use of consultants.

Transportation agencies are challenged to adjust to dynamic programs and large fluctuation in workload. They face more complex projects that carry increasing traffic volumes, through environmentally sensitive, restricted or highly developed corridors. As such there is an increased focus on context sensitivity to provide solutions that least disrupts the public or natural environment. In addition, agencies are facing significant technological changes in how business is conducted. Staffing limitations, hiring freezes and other constraints are adding pressures to the expectations of delivering high quality projects on time and within budget. Engineering consultants are a key resource that can supplement the agency's own professional staff to work through these dynamics and deliver transportation improvement programs.

All transportation agencies use consultants to some degree. Each agency has developed processes, procedures, and policies to address the selection, contracting issues and management of consultants. These processes and practices may be mandated by state law or influenced by federal requirements. Whether the transportation agency is centralized or decentralized, organized to manage projects within the functional units or as a separate responsibility, the expected results are the same. Agency leaders expect that project development will be seamless regardless of whether it is accomplished by in-house staff or by use of consultant resources.

Transportation agency leaders generally do not consider the use of consultant services to be a cost saving measure but rather a necessary response to having limited in-house staff available to deliver the transportation program. Much attention should be given to the contracting issues to ensure that a quality product is delivered in a cost effective manner. Therefore, considerable attention is given to the processes for selecting a consultant, developing and agreeing on a contract and then managing that contract and the associated project work activities.

This guide is a reference for agencies to use in further developing their consultant program, organizing and training their staff, selecting consultants, developing consultant contracts, and managing their consultant program. An underlying principle of this guide is that every step of the consultant contracting, selection and management process is directed toward producing a quality project. While principally focused on the project development process, the wide range of issues involved in selecting and managing consultants have application to many areas in transportation.

The design-build concept is being used by some state departments of transportation as an alternate delivery method. Due to the growing use of the design-build approach, the "AASHTO Joint Technical Committee on Design Build" has been directed to focus on design-build and the many issues associated with this project delivery process. As a result, this document does not address procurement of consultants for design-build projects. This document focuses on the use of consultants in the conventional design-bid-build approach where the Department contracts directly with the consultant.

As this guide was updated, the common thread which was most often mentioned as being important in all aspects of the transportation agency-consultant relationships was that of having skilled and knowledgeable professionals in both the public and private sector. Inexperience on either side of the relationship is often a factor that contributes to problems with the services provided and problems with the contract for services. While training can be a surrogate for practical experience, it is preferred that it be a supplement. Practical experience, in developing designs, in understanding the project development process, in managing a project, in understanding the agency policies and practices, in developing a contract, in meeting project schedules, and in coordinating all the other activities related to the contract, is of high importance.

A major consideration for any agency in developing or revamping a consultant usage program is the staff needed to execute and manage the program. This guide was developed in recognition of the fact that variations in the size and organizational structure will continue to exist across the nation. It provides a discussion about important considerations along with examples of effective organizational configurations.

It is important that the agency have clearly defined policy and procedures which provides a fair and equitable selection process open for all. This guide outlines some processes that are in predominant use throughout the country. One element of the selection process can be the use of a prequalification process. When developed to provide for the fair consideration of a broad cross section of the available consultant resources, these processes have been well received by the consultant community. Prequalification can eliminate unnecessary duplication and result in a savings in time as well as cost to the consultant.

Consultant contracts should clearly outline the terms and conditions under which the consultant is expected to function, the services and products to be delivered, the responsibilities of the parties to the contract and the time frame in which to perform. In return, the consultant is entitled to fair compensation. Reaching agreement on the contract should involve those who technically and professionally understand the work effort needed and

those who understand the negotiation process. While agencies may have the technical and professional expertise to evaluate the work effort, many report that they do not provide formal training for those involved in the negotiation process.

A single point of contact within an agency is a generally considered beneficial. Some transportation agencies successfully manage projects by having engineering professionals within the agency functional units oversee the work. Others have set persons aside in their organization to oversee the contract details and payment, and help with coordination of the overall process. Yet others have utilized the engineering professional as the project leader or manager with a smaller support staff to prepare and support the resolution of contract management issues. Regardless of what overall strategy is utilized, the common concern expressed by both transportation agency staff and the consultants is that those within the agency identified as the project leader or manager should be skilled and experienced practitioners.

Finally, accountability in terms of dealing with errors and omissions is of considerable interest to the transportation agency officials. While agencies generally have a plan of action for dealing with errors and omissions made by consultants, many are addressed on a case by case basis. A document outlining best practices in dealing with errors and omissions may be the focus of a future assignment for the Preconstruction Engineering Management Technical Committee.

Most transportation agencies foresee an increase in the utilization of consultant services to supplement the project development capabilities of their staff. Improvement in the processes to effectively manage these contracts will be of increasing importance.

Chapter 1: Introduction— Using Consultants

The AASHTO Preconstruction Engineering Management Technical Committee was assigned to study, evaluate, and update a guide originally published in 1996 for the procurement and management of engineering consultant services. The committee had four goals:

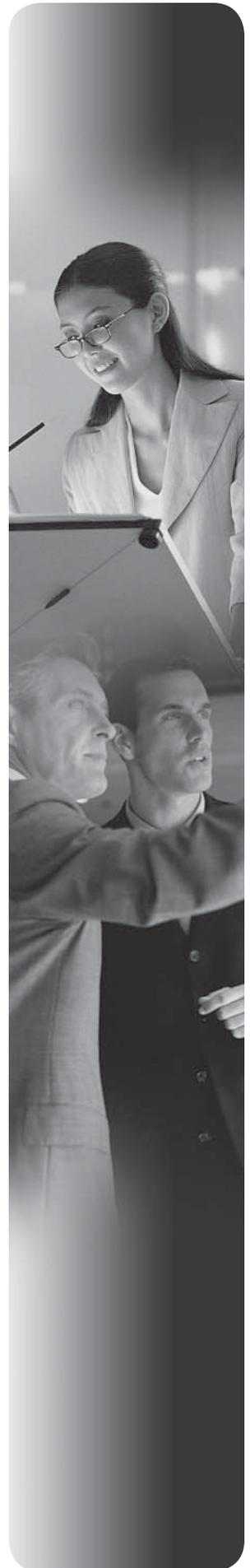
- Update a questionnaire and survey the states concerning issues relating to procuring, managing, and using engineering consultants;
- Update a questionnaire and survey consultants performing services for state transportation departments;
- Develop an AASHTO position and recommend guidelines, for effective management of consultants and the contract process, based on current information and data;
- Develop and distribute an updated publication that will provide guidance in organizing, developing, and effectively managing a consultant program for use by AASHTO members and related government agencies.

1.1 State Surveys

The Committee prepared questionnaires in 2005 to update the prior studies. Using an NCHRP Project 20-07, Task 224 funded work program to evaluate the surveys, the most significant finding from the 2005 surveys was the consistency in the responses in the 1992 and 2005 surveys. While there was considerable growth in consultant usage, and expansion in the range of services provided, the new surveys confirmed the views and preferences previously expressed with respect to procurement, selection, management and compensation.

Analysis of the responses to the state surveys conducted in 1992 and 2005 led to two principal conclusions:

1. The relationship between state transportation agencies and consultants providing engineering and design services has matured, as evidenced by:
 - Consultants are essential to the timely delivery of design contract packages in most states. In over 80 percent of states, consultants design work comprising between 20 percent and 80 percent of program value. Almost half of the states each award more than 70 engineering and design services contracts annually.
 - The range of services offered by consultants has increased. In addition to routine engineering and design work, consultants are used for emergency and controversial projects. They also provide specialized technical services that may not be available in-house.
 - The constraints on hiring in-house staff in many states means the trend towards greater use of consultants is continuing.



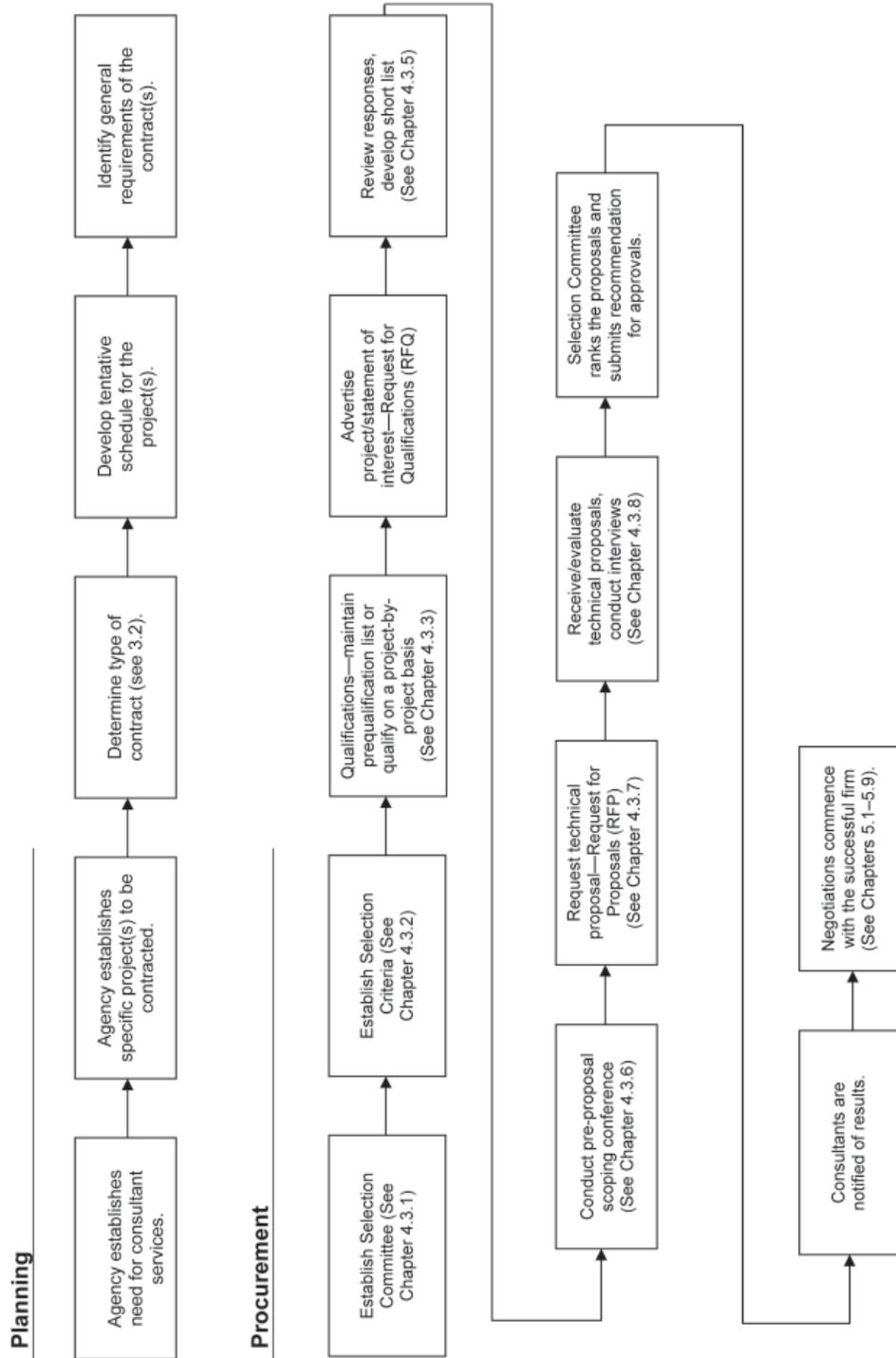


Figure 1-1. Consultant Selection Process

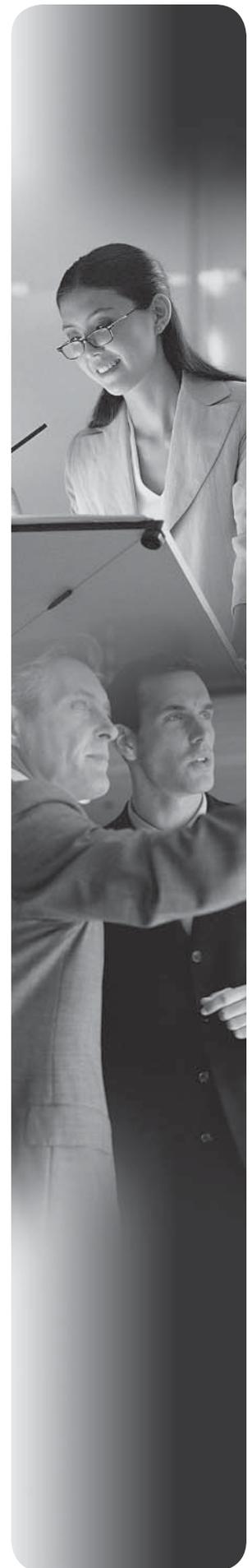
- States have developed effective processes for procurement, selection, contract negotiation, and management of consultants. In part, this was a product of necessity because of the large number of engineering assignments that must be processed, and many are of relatively small monetary value.
 - In-house staff has been trained in oversight and project management. Consultants have gained experience with transportation agencies as clients. Consultants are viewed as part of the team, but are also accountable for the quality of services provided.
 - Liaison groups have been established in nearly all states to exchange information and ideas, identify and resolve problem areas, and work on issues of mutual interest.
 - Holdbacks on payments have been reduced.
2. The workplace changed between 1992 and 2005 as a result of advancements in computers and electronic communications, and this changed the contractual and working relationships as evidenced by:
- Use of electronic billing and funds transfer;
 - Universal use of design software and deliverables that include electronic files;
 - Use of electronic communications for filing such items as progress reports and schedules; and the use of project management software;
 - Electronic access to state documents such as standards, design drawings, specifications and special provisions; and
 - Electronic submissions of qualifications and proposals are common.

A detailed summary of the results of the State Survey is posted on the AASHTO Subcommittee on Design web site <http://design.transportation.org/>. Results can be found under the Technical Committee on Preconstruction Engineering Management folder.

1.2 Consultant Surveys

The trends from the Consultant Surveys are not as clear as from the State Surveys because the correspondence between the questions asked in the 1992 and 2005 Consultant Surveys was not as strong as for the State Surveys. However, there is ample evidence to confirm the trends recorded in the State Surveys:

1. The relationship between state transportation agencies and consultants providing engineering and design services matured, as evidenced by:
- The range of services provided by consultants increased. While design services still account for slightly more than half the work, there was an increase in the number of firms providing traditional specialist engineering services such as geotechnical, materials and structural engineering; as well as others involved in less traditional areas such as environmental assessments, safety or cultural studies. There was also an increase in the number of firms providing project management, program management and design-build services, though the volume of work in these areas remains a small proportion of the consulting work awarded by state transportation agencies.
 - State transportation agencies are perceived by many consultants as an important, though not necessarily the dominant client. Work for state agencies was less than 50 percent of the





workload for more than 70 percent of the consultants' offices/locations responding to the survey. This can be interpreted as a healthy situation because there is a pool of consultants available to state transportation agencies, and a consulting industry with the broad client base necessary to survive the cyclical nature of the business. It also means that experience gained on DOT projects is transferred to municipal and private sector clients, and vice versa.

- Consultants expressed a strong preference for a Qualifications Based Selection process. The level of expertise of the project team, and past performance, were viewed as the most important selection criteria.
 - Consultants want to be viewed as equal partners in a contractual relationship. They want input to contract scoping, to be managed in a professional manner by well-qualified state transportation agency staff, and to be accountable for the quality of the final product.
 - There was a significant growth in the level of participation and support for state level liaison meetings, and also a change in the focus of meetings. In 1992, meetings were seen as primarily an opportunity for building relationships; in 2005 they were seen as a forum for providing input and resolving issues of mutual interest.
2. The workplace changed between 1992 and 2005 as a result of advancements in computers and electronic communications.
- The main evidence in support of this statement is that the 1992 survey included two questions concerning the preparation of contract documents in computer aided design and drafting (CADD) formats, and the preferred method of allocating CADD charges. Some responses stated it would be very difficult to develop contract documents in CADD, and there was no consensus on the preferred method of payment. The 2005 survey did not include any questions relating to CADD because it is now an integral part of conducting business.
 - There were several suggestions for further efficiencies and improving communications through the increased use of electronic media for items such as progress meetings, updating schedules and submitting reports.

The responses to the 2005 Consultant Survey also included several suggestions and recommendations for streamlining the procurement process and improving contractual relationships. The strongest criticism concerned management techniques, and particularly DOT staff who are inexperienced, or those who attempt to micromanage the consultant instead of focusing on the deliverables identified in the contract. Suggestions were also made for improving the effectiveness of liaison meetings. Recommendations were constructive and the response by the consulting community to the 2005 survey was positive.

A detailed summary of the results of the Consultant Survey is posted on the AASHTO Subcommittee on Design web site <http://design.transportation.org/>. Results can be found under the Technical Committee on Preconstruction Engineering Management web page.

1.3 Chapter Overviews

The remainder of this chapter introduces the material included in this document and provides a brief summary of the contents of each chapter.

Chapter 2 discusses some agency considerations. It provides a brief overview of some factors to be considered when utilizing consultant services. Identifying the need for consultant services is discussed. Identifying the roles and responsibilities of participants, mention of the added resources to support the consultant and their management, the added business processes and the training and skills which may be appropriate are also mentioned. In addition, some of the organizational structures which might be utilized are mentioned. To assure that the in-house organization will be able to perpetuate the experience and skill levels required, each agency should examine its long-range plan. A program that includes a sufficient number of in-house projects, results in staff having both leadership skills and the technical knowledge to conduct effective oversight of consultants.

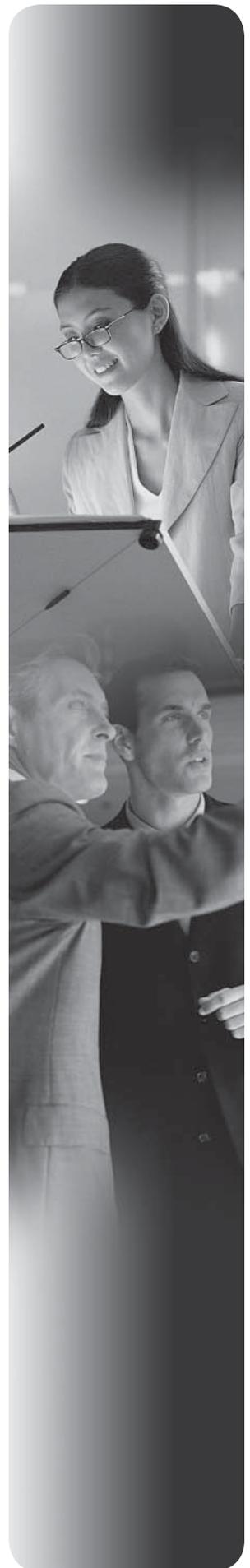
Chapter 3 broadly discusses the Consultant Program and reasons for retaining consultants and issues relating to the programming and funding of consultant work. One item of major concern in justifying the use of consultants is cost. Cost-effectiveness continues to be brought forward as a criterion for use of consultants. While it can be shown that the use of consultants can be a very cost-effective decision to meet peak workloads or to do specialty work, it may not be less costly for routine work.

Chapter 4 provides considerations for selecting consultants. Selecting the best available consultant engineering or related firm and negotiating for compensation requires hours of research, organization, evaluation and responsible decision-making. The goal of most procurement officials is "total value," a result which occurs when the most competent consultant firm, engaged at a fair and equitable cost, develops a project design or study that serves the client's best interest in quality, construction cost and life-cycle cost of the facility.

This guide covers a wide range of issues involved in the process of selecting and managing consultants for preconstruction engineering. Any such process must recognize and be consistent with a myriad of federal, state, and local legal, regulatory, or administrative requirements. In this updated guide, the Technical Committee on Preconstruction Engineering Management has attempted to identify and discuss some methods to establish and manage this process in order to have an efficient delivery of high quality products.

Although not continually referred to throughout this updated guide, its underlying principle is that every step of the consultant selection and management process is predicated on the goal of producing a quality product for the public. There are costs involved in ensuring that in-house staff who provide oversight, and consulting staff who provide services, are experienced and well trained. However, expenditures in the preconstruction phase of a project have been shown to be the most effective method of avoiding delays and cost overruns during the construction phase.

Chapter 5 presents a discussion of negotiating and contracting for consultant services. Various contract types, methods of payment, and the basis of payment are presented. The development of a Scope of Services, the negotiation of a contract and a broad range of contract considerations are presented.





Chapter 6 focuses on how the transportation agency deals with the managing of the contractual, functional and technical aspects of consultant services. A brief discussion of the responsibilities of agency staff as related to contract oversight and technical monitoring is provided. Tracking systems and reporting, performance evaluations and budget control are mentioned. Reminders of the many steps to be considered, or processes to be performed, are provided. Also discussed is the importance of having a clear understanding of the roles and responsibilities in project development which are essential to avoiding disputes in the administration of the contract.

1.4 Conclusion

This publication is intended to aid in creating or strengthening a public-private team, to establish guidelines for the most appropriate and best way to manage this public-private team for the benefit of all and, most importantly, to develop a cohesive partnership between consultants and states at all levels in the organization. In today's environment a strong, effective, public-private team is essential to meet the goals of transportation agencies.

Chapter 2: Agency Considerations

One of the key considerations in managing a consultant program is the type of organizational structure that will be necessary to meet the agency's plan for using consultant services. Other chapters of this guide will focus on individual contract considerations.

This chapter addresses the need for developing the most effective organization for using consultants as well as agency roles and responsibilities, agency policies, ideas for training (both agency staff and the consultant staff) and understanding why an agency uses consultants.

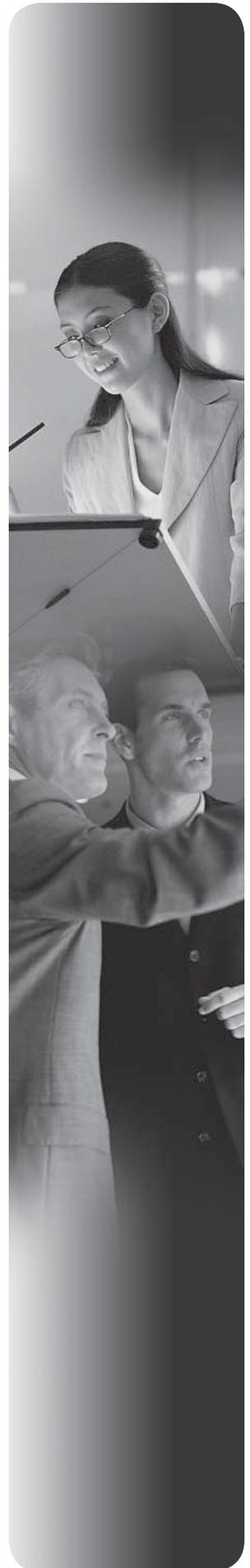
The way a transportation agency organizes for the use of consultant services is linked to how the agency is staffed for delivering transportation projects, and how work is completed on individual projects. There are times when the entire project is given to the consultant to complete all the required activities. Other times an agency will decide to use a consultant to complete one activity in a project. An individual project could also include multiple consultant contracts to cover the various parts required for delivery because some projects can take several years to complete.

This guide is mainly used to decide the agency outsourcing needs of preconstruction functions such as designing construction plans, preparing environmental documents, performing land surveys, performing traffic analysis, performing the public involvement process, collecting soils data and testing and various others. However, many of the suggestions and steps in this guide can be applied whenever an agency decides a professional service is being considered.

2.1 Need for Consulting Engineering Services

A transportation program is often developed by an agency, setting forth the program objectives. Based on the program the agency identifies projects as well as project schedules and priorities. The agency staff reviews their available human resources versus the schedules and priorities of the statewide transportation program. From this review, the need for consultant services is identified.

These are important steps for the agency to have completed because it provides justification as to why a consultant is being hired. Government employees, the media, the public, and the legislative body need to understand that there can be times when it is necessary to outsource some of the work. Due to peak work demands, the only way to complete all the work in the allotted time is to outsource some of the work to consultants. There can also be highly specialized intermittent work that will need to be outsourced. Due to the sporadic need for this work or expertise, it may not prove cost effective to have a governmental employee on staff fulltime to do this work. Also there may be instances when the agency needs to hire a consultant to provide independent analysis or opinion related to sensitive issues or to provide expert advice to the agency.





Some states may find that the process of identifying and deciding to use professional services may require some interface with unions representing employees of the agency.

It is important to realize that policies can change over time and with a change in State vision/direction or through a quality improvement process. This can also happen with an agency leadership change. Policies are always open to review and modification.

2.2 Structure Types

There are many variables to consider in structuring the organization of the agency for consultant oversight. It is imperative to approach an organizational structure in a flexible manner to allow merging with any plan or need of the transportation agency. The main approaches to consider are:

- Centralized for Contract Administration only
- Centralized for all aspects of contracting
- Decentralized for all aspects of contracting
- Consultant Managed Contracting
- Combinations of the above

2.2.1 *Centralized for Contract Administration Only*

The administration of consultant contract is performed by one office in a central location. Using this approach, a work unit skilled in the development of contracts oversees the financial or contractual relationship with the consultant. They develop the contract documents, arrange audits, obtain legal reviews, process invoices, and may act as a clearing house for general performance reviews.

The management of the work to be performed by the consultant may be handled by the functional area that oversees and approves the work. This functional area may be either a headquarters unit or some regional unit.

2.2.2 *Centralized for All Aspects of Contracting*

All the duties are performed by one office in a central location. This office is assigned to administer and manage the consultant contract as well as oversee and approve the services the consultant performs for the transportation agency.

2.2.3 *Decentralized*

All the duties are performed by the functional area that determined the need for the consultant service. The specific functional area will administer and manage the consultant contract as well as oversee and approve the services provided.

2.2.4 Consultant Managed Contracting

A transportation agency may sometimes contract with a consultant to oversee and manage the outsourcing of professional services to other consultants. With this approach the consultant performs the functions that are ordinarily those of agency staff. The transportation agency staff manages a consultant who in turn manages individual consultant contracts on behalf of the agency. With this approach, the firm that performs the Consultant Management function is normally precluded from competing for any other work that is outsourced while they are under contract.

Contracts for retaining consultant management functions are sometimes predicated on a very large project or series of projects such as a corridor of associated transportation improvements.

2.2.5 Combination

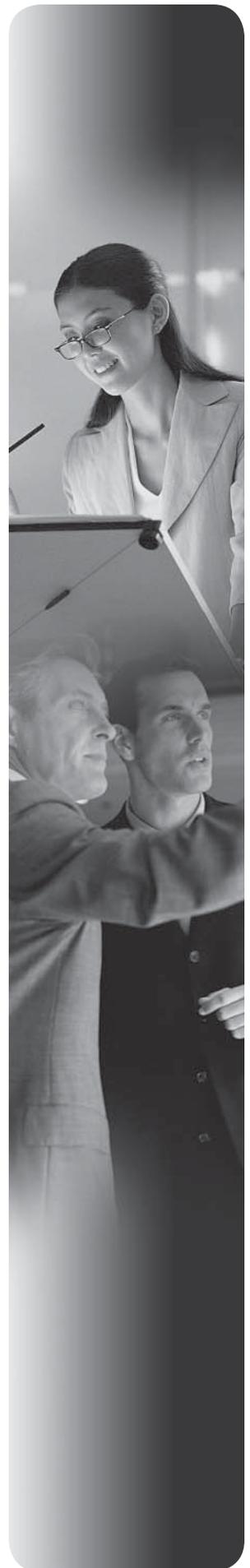
A mixture of the options is used in this approach. Some agency staff oversees the administrative duties related to the qualifications and hiring the consultants. The technical review and quality assurance are usually done by the functional areas. Also, some transportation agencies may have the need for a short-term program management function that will be done by consultants. The combination of organizational structures may prove beneficial in ensuring qualifications and selection procedures are carried out uniformly within the agency. This also removes the administrative work from the technical staff who will be reviewing the consultant's work for quality and accuracy.

2.3 Roles and Responsibilities

The consultant is most often viewed as an extension of the agencies' work force. Agency personnel often include a project manager, functional area experts and other qualified agency staff persons needed to facilitate, administer, and oversee the consultant contract. The agency usually identifies the consultant services required, the timelines for delivering the work, and the sequence of the work performed by the consultant. The consultant will coordinate and work with identified transportation agency staff to complete the contracted work in the designated timeframe.

On some contracts the consultant may need to hire another firm as a subconsultant. The original firm is normally known as the prime consultant. When a firm hires a subconsultant, the agency contract remains with the prime consultant. The prime consultant and the subconsultant will execute their own contract for the portion of work done by the subconsultant. The subconsultant takes direction from the prime consultant. The agency holds the prime consultant responsible for delivering the contracted work.

It is important to create a positive environment within the agency for outsourcing work to consultants as well as maintaining a positive relationship between the agency and the consultant community. Many agencies view consultants as an extension of their staff. By





working closely together, joint goals and missions are established between the agency and the consultant. To strengthen these relationships, many agencies have found it beneficial to schedule regular meetings with local representatives of the American Council of Engineering Companies (ACEC).

Regularly scheduled meetings with representatives of ACEC and the agency's leadership offer the opportunity for both groups to jointly discuss items of interest, concerns, new programs or procedures, and identify ways to deliver quality transportation products and the program more efficiently. These meetings help maintain open lines of communication between the agency and the consultants. In many instances, joint subcommittees or working groups are formed to discuss specific areas where change is occurring or change may be needed. Through joint work and open communication a stronger partnership is formed between the agency and the consultant. Also, through the formation of good partnerships, trust, teamwork, and professional respect are fostered. This leads to an enhancement of the transportation delivery, business, and procurement processes within the agency.

2.4 Resource Requirements

Each agency will need to determine the number of people required to implement and maintain a consultant work program. The assigned staff is given duties which assist and support project delivery. Other internal staff is considered necessary in supporting the agency's consultant program and the internal project manager. Examples of these staff members are: an attorney to ensure all the legal requirements are included in the contract, an accountant to make sure the consultant firm has an accounting system that can aggregate and segregate costs by project, contract writers to prepare the documents for signatures, pay clerk to make partial and final payments to the consultant firms, an auditor to review the closing of the contract, technical experts to review the scope of services for completeness and technical/professional experts to confirm that results are appropriate.

There can be multiple numbers of each of these specialty staff people in relationship to the numbers of contracts that get executed during the year. If specialty staff are not available within the agency, there may be sister agencies that can provide the expertise for some of these duties. Otherwise, the agency will need to contract for some of these specialty skill areas. This decision will also need to be made if an agency decides to set up an organizational structure that utilizes a consultant with the Consultant Managed Contracting approach.

2.5 Training

Training programs are necessary for internal staff as well as consultants. A highly trained staff is not only essential to oversee, supervise, and manage an agency's in-house program, but also to manage and oversee the consultant contract program. The agency's functional area that understands the contracting process is often best equipped to provide the training for in-house agency staff. For those instances when the agency needs to train

consultants on the agency's expectations for an acceptable product, the training will need to be delivered by the agency's expert functional area. By using these two approaches, a consistent message is given each time the training is provided.

Internally, the agency staff should understand the timeframe required to get a consultant under contract, the legal requirements from the agency and federal perspectives, ethical issues, who has authority over the consultant's work, payments to the consultant, dispute resolution methods, and the ownership of the consultant products that are completed within the contract. The agency staff also needs to understand that a comprehensive scope of services is important to defining the work to be accomplished by the consultant. It is also important that the consultants understand the scope of services so they can submit appropriate letters of interest to the advertisements for the work.

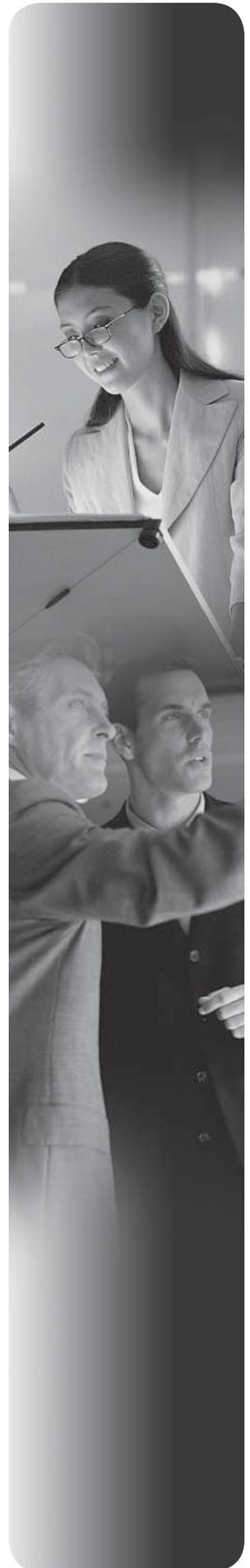
After a consultant is selected, the agency proceeds with the negotiation of the contract. The agency staff needs to understand the scope of the negotiations in order to come to terms with the consultant on a fair and equitable price for the consultant's work. The negotiation step goes smoothly when the agency sets reasonable expectations. The negotiation needs to be balanced with not only the cost and time elements, but also the quality of the products being provided. If agency staff is properly trained in oversight methods and procedures, the consultant staff can more easily follow the direction of the agency staff and provide. This will help to ensure a quality product.

The extent of training and who will be trained depends on the type of structure the agency implements, staff turnover, and if there are any new policies/laws that will affect the contracting process. Training can be divided into differing modules so only the items with a direct bearing on the employees work need be explained to them.

Consultant training should be in two areas. The first area is the general consultant contract procurement process, laws, and procedures the agency uses when the decision is made to outsource some of the work. Consultants need to understand the format and forms that the agency requires in the submittals. There are administrative details that consultants need to understand to ensure work performance for the agency goes as smoothly as possible.

The second area is the technical work the agency will be asking the consultants to perform. Consultants need to understand the criteria the agency utilizes and know that the same criteria will apply when similar work is being performed by the agency staff. The agency should expect the consultant to perform at the same level or standard that is expected of their own staff. Again, the consultant needs a clear understanding of the work required within the contract and what finished product is required by the agency.

Finally, the agency will need to decide how to address problems and substandard work from individual consultant firms. When the consultant does not deliver the work product or quality of work that is required, the agency has several options. The agency could suggest the consultants obtain additional training in their deficient area, hold the consultant accountable for completing the assignment, suggest the consultant hire a subconsultant





or team with other consultants until the prime consultant can demonstrate they increased their skills, or terminate the contract with the consultant.

Quality and continuing improvement to quality are the focus of transportation today. An important element in achieving quality is staff excellence. This includes both agency staff and consultant staff. Staff excellence can be best assured by comprehensive training and education. When a transportation agency's program calls for a mixed workforce of consultants and in-house staff, emphasizing and encouraging training and education of both will create an environment in which continuing improvements in quality will occur.

Those who manage consultants need a broad range of training which might include management skills as well as technical and professional skills if they are to be well equipped to deal effectively in the consultant relationships. To assure that the in-house staff will be able to perpetuate the experience and skill levels required, each agency should examine its long-range plan. A program that includes work on a sufficient number of in-house projects, as part of their overall training regime, provides staff with opportunities to develop leadership skills and the technical knowledge needed to effectively oversee consultants.

Brief mention is given in Appendix E to some possible areas for training.

Chapter 3: Consultant Program

Transportation agencies are mandated to provide sustainable, economical, and value-added infrastructure and services to support the mobility of people and goods. In today's environment of changing priorities and fluctuating budgets, the agencies are constantly faced with the challenge of providing infrastructures and services with limited lead-time, resources, and staffing. There is also the desire to maintain a stable workload and staffing levels in the long run for delivering capital projects with timely planning, design and construction activities. Outsourcing of work to qualified consultants may assist in achieving the above objectives.

An agency may use consultants to deliver substantial portions of the work program. The use of consultants can allow an agency to provide services on specialty areas, forensic, sensitive or contentious issues not encountered routinely. These services may be associated with conducting special assignments, adjusting to peak workloads, or simply augment agency staff with completing program functions.

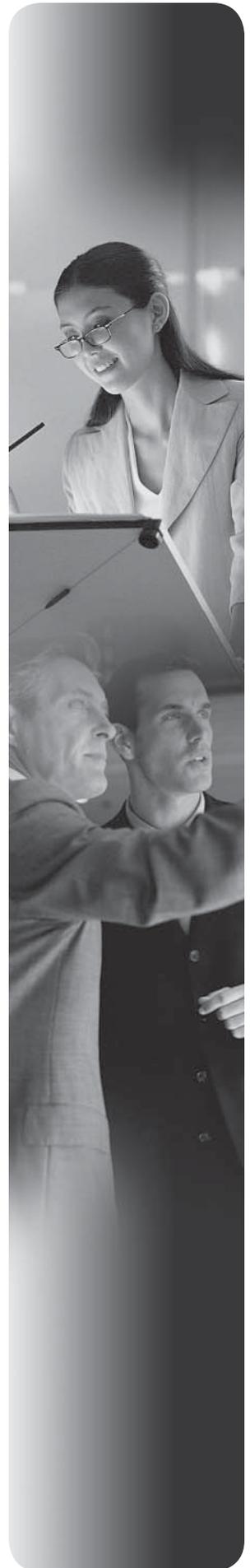
3.1 Setting Up a Consultant Program

An agency should set up a program of consultant services including qualification or pre-qualification of service providers and applying an open, transparent competitive selection process. To demonstrate clear accountability and audit trail, each step should be followed and tracked diligently. Internal agency approvals are usually required for advertising an assignment and for short-listing and award. Approvals supported by project information and justification are usually sought from Chief Engineer, Director or Deputy Secretary of an agency.

A clearly defined and transparent process should be applied to manage consultants. The roles and responsibilities of a consultant and the agency staff including risk and liabilities should be clearly understood by both parties to ensure complete, efficient and quality delivery. Standardized legal agreement templates are usually used to define and bind both parties for the scope of services, roles and responsibilities, schedule, deliverables, compensation, incentives and penalties.

For Federal-aid highway funded grants that go directly to states, federal regulations are applicable and require the state to use the procurement procedures that it would use for contracts using federal funds. The state is to ensure that every purchase order or other form of contract includes the clauses required by Federal statutes and executive orders and their implementing regulations. If a state sub-allocates Federal-aid highway funds, the state is responsible to administer the sub-grant by its own procedures.

The state has oversight responsibility for all Federal-aid highway funds it sub-allocates in the form of subgrants to local government agencies or "other legal entities" to ensure





they comply with the appropriate Federal laws, regulations and accountable to the grantee related to the use of these funds.

3.2 Types of Consulting Services

Each transportation agency's capital and operations program and delivery may vary from year to year, based on the commitments and funding available. The approach for delivery may depend on the agency outlook, organizational structure and staff size, the governance structure, resources available in consulting and construction marketplace and other related factors. Various types of contracts employed for consulting services are briefly outlined below and described in detail in other chapters.

The contracting and management of consultant services may involve different offices and types of services within an agency. The services may involve types of procurement methods, selection procedures, contracts, special provisions, and payment methods. The services may include but not be limited to legal, real estate, roadway maintenance, traffic control, transportation planning, roadway development and design, surveying, construction management and inspection, special projects, peer reviews, and other types of projects. The agency's consultant program should provide direction, coordination and support for these different procurement and project management activities that may be performed to ensure consistency, improve efficiency, and comply with applicable laws and regulations (e.g., Federal, state, local).

The type of services, project, and source of funding will determine procurement method, contract type, and how it may need to be managed. Project specific consultant services contracts allow for a project with a specific scope, deliverables and schedule outsourced to a consultant. Such contracts may be cancelled, extended or modified as required and at the discretion of the agency.

Multiphase Contract is similar to Project-Specific Contract except that the work may extend through more than one phase of a project. Under a multiphase contract, the subsequent phases can be negotiated and the work authorized, as required. A multiphase contract is helpful for a complex project where a complete scope of work cannot be determined at the start. These contracts can allow an agency to initiate complex projects but require negotiations for each phase as the work progresses. A multiphase contract also allows an agency the flexibility to terminate a contract at the end of a phase without a disagreement with the consultant.

On-Call Contracts are used for work where specific scope of services to be provided is not yet determined. These contracts contain the basic contractual requirements with the provision of including any project specific requirements at a later date. However these contracts do define the specific types of services to be provided, length of contract, overall level or effort, and maximum contract amount to be charged for these services. The consultants are retained on On-Call Contracts through a competitive process. On-Call Contracts may be established to handle one or more projects or for any specialized services that may

be required. On-Call Contracts can also be used when a specialized service is needed for a number of different projects. Generally, On-Call Contracts can run for a period of several years. Such contracts can allow for agreed upon rates of payment within the maximum ceiling price.

With an On-Call Contract in place, a consultant can be retained for a specific work with a minimal amount of time as the majority of the selection process has already been completed. As project specific needs arise, a work order contract is negotiated.

3.3 Consultant Selection

The agency and consulting industry benefit when only qualified companies compete for work. Consultant qualification or pre-qualification by an agency normally serves as the first step towards an open and competitive selection process.

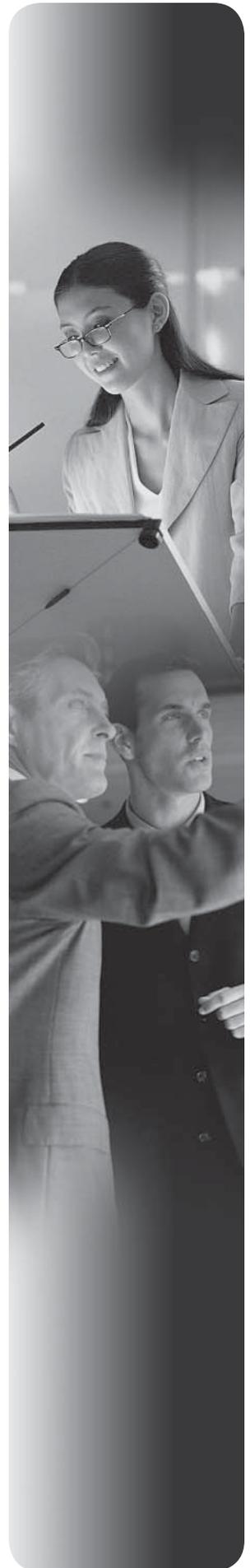
Many agencies follow a qualifications based process requiring a formal submission by the consultants including their expertise/experience for the specific work areas. Another approach used is the pre-qualification of consultants on project-by-project basis. An agency may solicit for pre-qualification of consultants by advertising in the newspapers or on the web. The information provided by a consultant is evaluated by the agency to ensure the consultant meets the requirements advertised.

According to Qualification-based Selection (QBS), a firm is selected based on their superior technical expertise, past experience, adequate staffing, and other criteria pre-established by the agency. Price for services is not a direct consideration in QBS. The submittals received are evaluated and ranked for qualifications and the negotiations for the detailed scope and price are held with the highest ranked firm. If negotiations are not successful within a pre-set time frame, the agency may proceed to negotiate with the next firm in the ranking.

3.4 Legal Contract

Once a consultant firm has been selected, the firm and the agency sign a legal contract including the scope of services required, staffing, deliverables, schedule, price, and the roles and responsibilities of the both parties. The price for a contract may be agreed as cost plus fixed fee, lump sum, cost per unit of work or any other specific rates of compensation.

It is common practice to use standardized legal contract templates with fill-in areas covering aspects such as, roles and responsibilities, deliverables, payment for services, defaults and remedies, indemnification, incentives and penalties, and dispute resolution. A contract should clearly outline the terms and conditions under which a consultant is expected to perform. A contract is a legally binding agreement, and care should be taken to ensure that all parties fully understand the terms and conditions.





Consultant firms are routinely required to provide proof of insurance to cover General Liability, Errors and Omissions, Occupation Health and Safety, Environmental and any other required coverage such as warranties.

3.5 Consultant Audits

Agencies routinely carry out audits of the consultant firm including Pre-Award and Final Audits. In some cases, sub-consultants may also be audited. Audits would include, but not be limited to, monetary records and bookkeeping practices, salary structure, over-head rates, final payments.

3.6 Managing Consultant Program

The management of consultant program including contract oversight is critical for the successful delivery of highway infrastructures. This includes technical compliance, progress reporting, milestone reviews, the consultant's in-house quality control, scope changes, budget control, timely payments for work, performance evaluations, compliance with the contract, coordination and cooperation, claims, and dispute resolution.

An agency may manage a consultant program through in-house resources and staffing or outsource consultant management to another consultant firm.

3.7 Industry Liaison

It is important that an agency keeps connectivity and liaison with the consulting industry including liaison meetings with Consulting Engineers Associations or other such groups. Periodic meetings involving local Consulting Engineers Associations' representatives and upper level agency officials and management have proven to be effective in keeping important lines of communication open and productive. These meetings, preferably held monthly, should follow jointly prepared agenda items of interest to both parties. They should be kept short and not serve as a complaint forum for either party. The meetings provide excellent opportunity to develop partnership in keeping with the agency's consultant program. Joint training opportunities or joint technical and procedural subcommittees may be used to resolve issues or explore opportunities to enhance both the quality of product and working relationship.

Chapter 4: Selecting Consultants

The consultant selection process is initiated once a transportation agency establishes the need to secure consulting services to augment existing agency staff. This process must comply with federal, state, and local legal, regulatory, or administrative requirements. Chapter 4 addresses the methods and steps necessary to successfully accomplish consultant selections successfully.

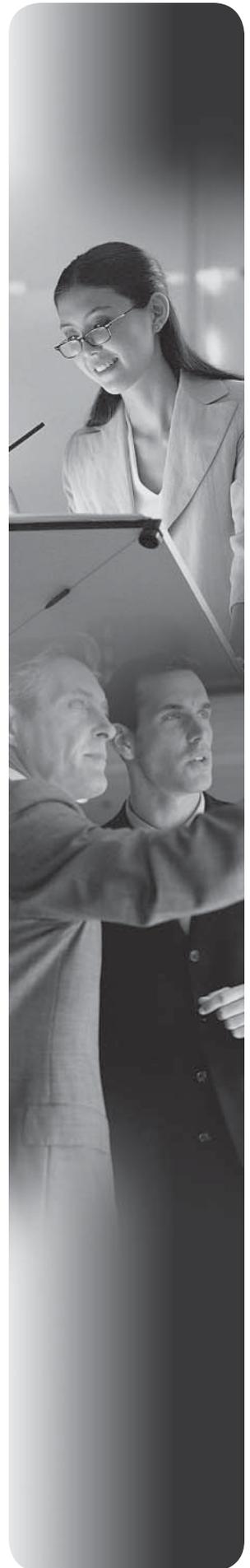
4.1 Selection

There are several methods of selecting a firm to provide consultant services. Unless a state is legislatively exempt, federal regulations and statutes establish the method of selection.

Title 23 U.S.C. 112(b)(2), as amended by section 111(b) of the Surface Transportation and Uniform Relocation Assistance Act of 1987, requires the award of engineering and design service contracts using Federal-aid highway funds to be in accordance with the "Brooks Act" (Federal Property Management Improvement Act of 1988, Public Law 92-582, 86 Stat. 1278 (1972), 40 U.S.C. 541, et seq.). The "Brooks Act" provisions require that all applicable contracts be awarded pursuant to a fair and open competitive negotiation process on the basis of demonstrated competence and qualifications. The 23 CFR 172, "Administration of Engineering and Design Related Service Contracts," is the Federal Regulation applicable to Federal-aid highway projects. It should be noted that some non-engineering services (such as, right-of-way processes) might be selected by means other than the "Brooks Act" provisions.

Section 174 of the FY06 Appropriations Act requires engineering and design (A&E) services contracts directly related to a construction project that use Federal-aid highway funding be awarded in the same manner as A&E services are negotiated under the Brooks Act provisions contained in Chapter 11 of 40 USC. As a result, State and local agencies are no longer allowed to procure these services using alternative or equivalent procurement "Brooks Act" procedures on contracts for engineering and design services (directly relating to construction) that use Federal-aid highway funding. State and local agencies are also required to use the indirect cost rates established by a cognizant audit (23 CFR 172.7) based on the cost principles contained in 48 CFR part 31 for the consultant, eliminating the placing of caps on indirect cost rates, except for the two exemptions included in the FY06 Appropriations Act for Minnesota and West Virginia.

Once an agency enters into negotiation with the highest rated firm based on an evaluation of their qualifications, the negotiation of price on a contract may begin. The consideration of cost should come after the top firm is selected and negotiations begin around arriving at a fair and reasonable price considering "the scope, complexity, professional nature, and estimated value of the services" as per 40 U.S.C. 1104(a). The consideration of di-





rect salary costs could occur in these negotiations, if it is done in a manner that is consistent with determining a fair and reasonable price, following a price analysis process described in the Federal Acquisition Regulations (FAR), section 15.404-1(b).

Note that the above requirements apply to State transportation agencies and all local agencies that may use Federal-aid highway funding for engineering and design services contracts (directly relating to construction) that use Federal-aid highway funding. Projects utilizing Federal-aid highway funding that cost \$100,000 or below are allowed to follow the small purchase procedures contained in 23 CFR 172.5(2) which allows projects to be procured following State laws and procedures.

State and local agencies may place limits on both direct salary and indirect cost rates if they procure A&E contracts that do not use Federal-aid highway funding.

4.2 Selection Methods

It is a common practice by transportation agencies to use competitive processes for the selection of consultants unless it can be justified otherwise. In rare instances, noncompetitive selections may be appropriate to retain single-source or sole-source consultants for emergency work unique or specialized services not available through an open competition.

The method of selection, while conforming to statutory requirements, should take into account the value of work to be awarded. The results of the 2005 surveys showed that there are a very large number of capital contracts with a value of less than \$2,500,000, and a corresponding number of design services contracts with a value of no more than \$500,000. This means that the selection process should be efficient such that the total cost of in-house staff and consultants participating in the selection process is only a small percentage of the value of the design services contract.

4.2.1 Competitive Selection

The process for competitive selection may take one or two steps. A one-step selection process is generally used for simple, short-duration contracts. A two-step process may be used for complex, long-duration or multi-phase contracts. In a two-step process, the first step is to short-list the consultants to narrow down the list to the most qualified firms, usually three to five. This may be accomplished by advertising a Request for Qualifications (RFQ). The second step involves advertising a Request for (Technical) Proposals (RFP) and leads to the selection of a firm through a detailed submission, and interview or both.

Under this method, firms are selected according to factors other than cost. Such factors as technical expertise, previous experience, capability to adequately staff the project, location of the firm with respect to the project, and other factors as determined by the agency should be considered. Only after the final ranking has been developed and approval obtained does the negotiation process start. At that point, the negotiation com-

mences with the first choice selection. If the transportation agency is unable to successfully negotiate with the top firm, negotiations should stop and proceed with the second choice selection. This procedure is the recommended method for consultant selection.

4.2.2 Noncompetitive Selection

This method is appropriate when obtaining services from a sole source or under a direct select dollar limit. Sole source includes specialized services only available from one firm or services provided by another governmental agency such as a city, county, or state university. Federal and state statutes may provide for direct selection of consultants if the contract value is under a designated dollar threshold. If this selection method is used, once the need is determined, the agency proceeds to the negotiation process.

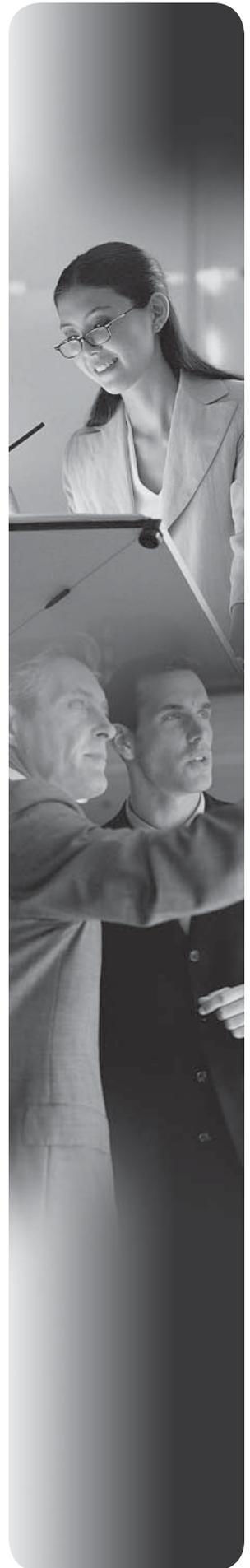
Non-competitive selection is usually used to retain a sole-source consultant for emergency work or specialized services not commonly available through open competition. Agencies must submit justification and receive approval from the FHWA Division Office to use this form of procurement on engineering and design services contracts that utilize Federal-aid highway funding that are directly related to a highway construction project. Circumstances under which FHWA may approve a contract for non-competitive negotiations are limited to: service only being available from one source; an emergency does not permit the time necessary to conduct competitive negotiations; or after solicitation of a number of sources, and competition is determined to be inadequate.

4.2.3 Selection/Assignment of “On-Call” Contracts

The selection process for “on-call” contracts is generally the same process described for competitive or noncompetitive selection. Matching projects to the selected firm(s) may be accomplished by assigning work in specific regions to a consulting firm. Work may also be matched with a consulting firm based on special expertise, by rotation of firms, or by other methods as developed by the agency.

4.2.4 Competitive Bidding

This is a method whereby the contract is awarded to the lowest bidder. Transportation agencies that have tried competitive bidding have seen a wide variance in bids. It should be noted that engineering costs represent a minor portion of the overall project cost. Also, the quality of the design can affect the overall cost of the project, both in initial construction and long-term maintenance. Under this concept, there is little incentive for the consultant to develop the best design but rather develop a design with the lowest design effort/cost and that still meets engineering standards. This method does not provide opportunities to improve upon the overall design within the contract. It also usually results in a contract that will have to be amended (at higher cost) to achieve the desired goals. Price cannot be used as a criterion during the evaluation phase of the selection process when procuring engineering and design services contracts that utilize Federal-aid highway funding (23 C.F.R. 172.5(a)(1)).





4.2.5 Value-Based Selection

The value based selection approach is similar to competitive bidding in that quotes are requested as part of the Request for Technical Proposal (RFP) submittal. Generally, transportation agencies develop a short list based on qualifications and then use the quote as a factor in determining final ranking in order to award the contract. Specific procedures vary among agencies as to the extent cost is considered. In some states, state law requires cost be considered. Some use cost as a final selection criterion in ranking firms, while others use it as a weighted factor along with other selection criteria. Several agencies use the "two envelope" system. The second envelope, containing the proposed engineering costs, is opened and contributes to the selection only after the firms have been ranked based on their technical proposal. When cost is a predetermined (even minor) factor in the selection process, the disadvantages cited above under competitive bidding may result. As with competitive bidding, price cannot be used as a criterion during the evaluation phase of the selection process when procuring engineering and design services contracts that utilize Federal-aid highway funding.

4.3 Identify Need, Establish Preliminary Scope and Schedule, and Procure Consultant

A statewide work program is developed by an agency, which compares transportation objectives, agency capabilities, its staff availabilities, and funding resources. From this, project schedules and priorities are established and the need for consultant services is identified.

Following project identification, the needed consultant services and agency responsibilities are outlined. A schedule for the project is also tentatively established. General requirements that the consultant needs to follow to deliver a quality product should be identified at this point in the process.

After the agency has identified the work to be contracted, the type of contract needs to be determined so that the scope of services expected of the consultant can be prepared and a proposal elicited (refer to Chapters 3 and 5 for types of contracts).

Once preparation for consultant services is finalized, the selection process may begin. The following steps are typically utilized in the process to select consultants:

- Establish Selection Committee
- Establish Selection Criteria
- Qualifications/Pre-Qualifications
- Request Statement of Interest or Qualifications (RFQ)
- Review Responses/Develop Short List
- Detailed Pre-Proposal Scoping Conference
- Request for Technical Proposal–Request for Proposals (RFP)

- Receive and Evaluate Technical Proposals/Conduct Interviews (Optional)
- Final Rankings/Approval and Notifications

A Consultant Selection Process flow chart is provided at the end of this chapter.

4.3.1 Establish Selection Committee

It is recommended that a selection committee be established for the purpose of reviewing and evaluating the statements of interest or the proposals submitted by the consulting firms. Selection committees should generally be composed of an odd number of individuals (e.g., three or five) for voting purposes. Members may come from diverse backgrounds and represent various disciplines (e.g., financial, engineering, administrative) commensurate with the services advertised. However, it is also essential that the committee have more than one representative who has technical expertise in the area (e.g., design, structures, right-of-way, etc.) in which services are being contracted. Some transportation agencies believe it is best not to involve the contract administrator in the selection process to eliminate the perception of a conflict of interest. This committee may be the final selecting authority or make their recommendations to higher authorities.

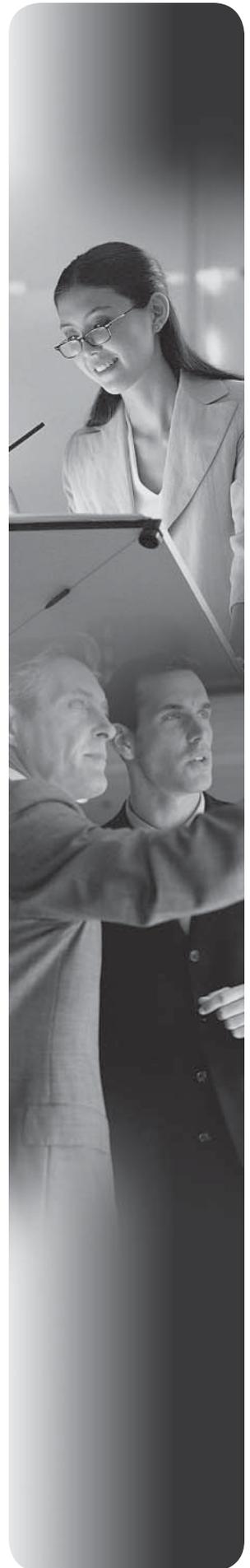
There are generally two methods used for establishing selection committees: one utilizing fixed membership, the other forming committees with a rotating membership.

Transportation agencies opting for fixed membership on selection committees often utilize top management, such as department, division, or office directors. However, middle-management or appropriate staff may also participate. One of the prime advantages of maintaining a fixed membership committee is the reduced time to establish the committee. Also, selection committee members become more knowledgeable of consultants' prior performance and can make appropriate evaluations more quickly. Agencies may use a rotating membership on the selection committee consisting of top management, staff persons, or a mix. By rotating the membership, the transportation agency is in a better position to avoid being criticized for favoritism. Some agencies have found that keeping selection committee membership confidential helps reduce excessive promotional activities by consultants.

4.3.2 Establish Selection Criteria

General criteria guidelines should be established for consultant selection. The criteria may be established by the selection committee or some other committee or group established for the specific task of developing the criteria. Some agencies also establish appropriate weights for each criterion. It may be necessary to modify the criteria to fit specific cases. When a request for statements of interest or a Request for Proposals (RFP) is sent to the consultant firms, it should state the criteria that will be used in the selection process.

Criteria for evaluating statements of interests or proposals, depending on funding sources, may include:





- Special expertise and experience of the firm's key employees and their availability and time commitment to the project;
- Proposed staffing for the project and previous experience of those identified;
- Experience of the firm and their personnel on previous projects similar to the one under consideration;
- Understanding of the project by the firm as demonstrated by their approach to organizing and management of the work;
- Current workload of the firm and their ability to meet the proposed project schedule;
- Location of the firm's office where the work will be done;
- Quality of previous performance by the firm with the transportation agency;
- Use of sub-consultants to accomplish work on the project;
- Equipment the firm has available and proposes to use on the project such as compatibility with Computer-Aided Drafting and Design (CADD) and other equipment proposed to be used in accomplishing the work;
- The need for specific software requirements should be considered when developing Request for Proposals (RFP) and should be specifically documented in the contract language. Identifying necessary software requirements in the RFP will eliminate the need to review and evaluate proposals of consultants who do not meet these requirements. Contractual language should be very specific to identify all the necessary software standards, versions, deliverable formats and other specifications as necessary to ensure that a proper deliverable is received.
- Familiarity with federal, state, and local codes, requirements, standards, and procedures.

The specific criteria used will depend upon whether federal, state or local funding is involved, and should be consistent with the funding agencies' requirements.

When procuring engineering and design services contracts that utilize Federal-aid highway funding, the following criteria cannot be used in the evaluation and selection process:

- Price;
- Indirect cost rate;
- In-state preference; and
- Set-aside and quotas of contracts for DBE's or SBE's is prohibited (49 CFR 26.43).

The FHWA does permit the following criteria to be used in the evaluation and selection process on contracts that utilize Federal-aid highway funding:

- Locality preference of between 5 and 10 percent may be used on a project by project basis where it is not based on political boundaries; and
- DBE and SBE preference of no more than 10 percent may be used. If a state establishes a DBE contract goal on a consultant services contract that has sub consultant contract possibilities, the implementation of the contract goal must comply with 49 CFR Part 26.

4.3.3 Qualifying/Pre-Qualifying

In an effort to ensure quality performance and results, a consultant should be required to meet certain minimum qualifications to be eligible for consideration in the selection process.

One prequalification process many transportation agencies use is to develop and maintain a file of consultant firms by specific work categories or areas of expertise. This data file or interest list is usually updated annually. Some agencies solicit this information by advertising in national, state, and local publications. The collection of data for the purpose of pre-qualifying consulting firms may be accomplished by requiring submission of Federal Form 330 or a special state form. The form should list consulting firm details, names of principals, office locations, personnel by discipline, project experience and examples, current workload, types of service the firms are qualified to perform, and previous performance. Also, resumes of key persons, specialists, and other associates that may be assigned to the project or projects should be included. This information should be the basis for evaluating and placing a consulting firm on a general prequalification list.

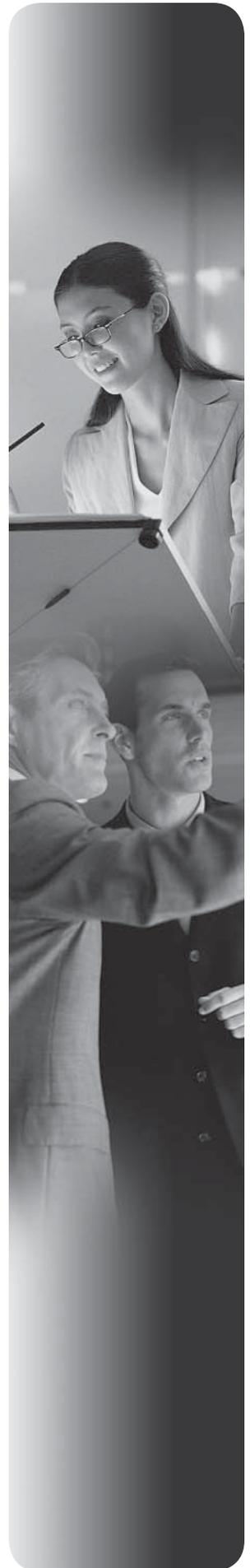
Another practice is to qualify consultants on a project-by-project basis. This is accomplished for some agencies by advertising or publishing notices in national, state, and local publications for needed services for specific, individual projects. These notices include a precise project location, a defined preliminary scope of services to be performed, a specific schedule within which the work is to be completed, and a list of products and deliverables to be provided by the consultant. Specific project advertisements usually are published when the proposed project is large and complex, in-house resources are not available, special expertise is required, or the objectivity of an outside authority is desired.

In both cases above, data received is evaluated by the agency to assure compliance with the criteria for the selection for a specific project or several projects. The consulting firms are then grouped or ranked based on the criteria established prior to the selection process.

4.3.4 Request Statement of Interest or Qualifications (RFQ)

The need for services of a consulting firm may be advertised in appropriate national, state, and local publications and web sites. Notices can also be sent to firms known to be qualified to do specific work, to professional societies, and to recognized Disadvantaged Business Enterprises (DBE) organizations. The advertisements and notices seek statements of interest and qualifications from consultants who are interested in the project.

Appropriate Federal Aid requirements should be complied with on Federal Aid projects.





4.3.5 Review Responses and Develop Short List

All statements received should first be reviewed for completeness. Each response must contain all required forms and any other information requested in the advertisement. The response may be considered incomplete and rejected without further evaluation if all required information is not provided or if the submittal is late.

The qualifications of all responding firms are then reviewed according to established evaluation criteria or factors. For information concerning statement of interests or proposals evaluation criteria, see Section 4.5 “Establish Selection Criteria”.

The agency then establishes a short list of at least three consultants that are determined to be the most highly qualified to perform the required work. Firms not selected should be notified in writing.

4.3.6 Pre-Proposal Scoping Conference

For complex projects, it is suggested that a pre-proposal, scoping meeting/conference be held by the agency in order to share with all involved firms pertinent technical information and objectives, administrative requirements, and time frames for the work, as well as to clarify general or specific project details, roles, and responsibilities. This assures that all short-listed consultants receive the same message and start from the same base to prepare their individual proposals. If such a meeting is to be held, the time and place is usually specified in the Request for Proposals. Failure to appear at the scoping conference may be grounds to eliminate the consultant from further consideration.

4.3.7 Request for Technical Proposal—Request for Proposals (RFP)

An RFP is sent to the short-listed firms. The RFP should indicate the content of the proposal, technical review procedures, anticipated schedule of activities, scope of work, project description, where the proposals are to be delivered, the number of copies required, and the due date.

Some agencies receive the technical proposal orally as part of an interview conducted for this purpose. In these cases, written documentation may not be required.

Items typically required in a technical proposal include:

- Work plan,
- Organization plan,
- Schedule for meeting time frame,
- Available computer equipment and programs,
- Staffing plan and resumes including subconsultants,
- Pre-award audit/financial package information (if deemed appropriate),

- Examples of similar work previously completed, and
- Subconsultants, DBE, their proposed participation, and other related information.

4.3.8 Receive and Evaluate Technical Proposals/Conduct Interviews (Optional)

The agency selection committee will evaluate all acceptable proposals according to established criteria, which may include weighted factors. Technical proposals and evaluation criteria should generally include project understanding, demonstrated competence, innovative concepts, approach to quality control, comprehensiveness of proposal, staffing quality and availability, staffing leadership and experience, reasonableness of work schedule to fit agency time frame, and past performance on similar projects of the prime and sub-consultants, including Disadvantage Business Enterprises (DBE).

Interviews, if necessary, should be structured and conducted in a formal manner with a specified time limit. Interviews give firms the opportunity to present their qualifications and state how they intend to provide the necessary personnel and services to complete the project. The agency can request competing consultants to bring additional information or examples of their work to the interviews if such information will contribute to the evaluation process. Specific questions may be asked of each consultant by the selection committee to clarify qualifications, written proposals, or oral presentations.

4.3.9 Final Ranking, Approval, and Notifications

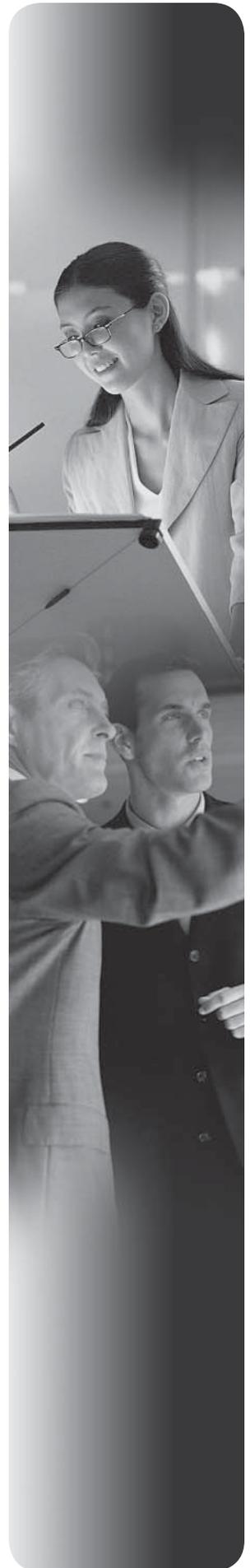
The selection committee should evaluate and document the strengths and weaknesses of each consultant. Thereafter, a final ranking of the short-listed firms is developed.

After the firms have been ranked, their ranking, the factors on which the ranking is based, and a recommendation should be submitted through the agency's approval process. Short-listed firms that submitted RFPs should be notified of the final selection. Debriefings may be given to consultants if requested. Identifying areas of concern (such as, staff qualifications, high work load, or problems with past performance, etc.) may help consultants identify improvement opportunities.

4.4 Other Selection Methods

Some transportation agencies have rules and policies, which allow them to modify and vary from the aforementioned selection process. Alternative selection methods are usually dictated by factors such as funding source, project complexity, engineering costs, emergency situations, time constraints, and statutory requirements state laws and other specialized characteristics.

One variation is to short list at least three firms directly from a list of pre-qualified consultants. This allows an agency to move directly into requesting technical proposals without advertising. The remainder of the process is similar to the one described above.





An even simpler process is to make a direct selection, from a pre-qualified list, of a firm that is available and qualified to produce a quality product based on an agency's needs. This process is generally followed when the need is specialized or well-defined and engineering costs will be relatively small. This allows an agency to move directly into negotiating an acceptable contract.

Chapter 5: Negotiating and Contracting

After finding that consultant engineering services are needed, agencies will proceed to determine contract types and associated payment methods. Throughout the life of a consultant contract, agencies will conduct financial audits of the consulting firms.

The agency will prepare a detailed scope of work (services) that will form the basis of negotiating a contract with the consultant for the various methods of payment. Consultant contracts follow contract language that is legally reviewed and results in a fully executed contract.

5.1 Contract Type

Per the Federal Acquisition Regulations (FAR), the agency should consider many factors in selecting the contract type. These factors include price competition, price analysis, cost analysis, type and complexity of the requirement, urgency of the requirement, period of performance or length of contract, consultant's technical capability and financial responsibility, adequacy of the contractor's accounting system, concurrent contracts, extent and nature of the proposed subcontracting, and acquisition history.

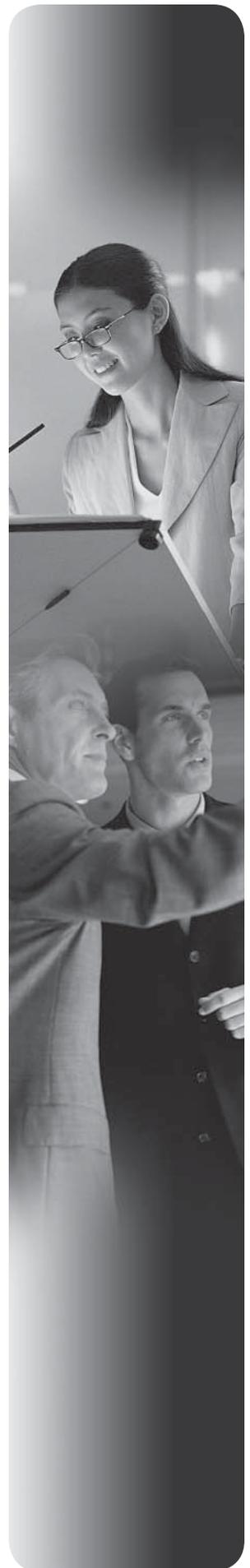
As discussed in Chapter 3, prior to beginning the selection process, the type of contract needs to be determined. Contract type refers to the method in which the contract is structured to cover the work, such as:

- Project-Specific Contracts
- Multiphase Contracts
- On-Call Contracts

5.1.1 Project-Specific Contracts

Project-specific contracts provide for all the work associated with a specific project that is desired to be contracted with the consultant firm and requires detailed scopes of services. These contracts may provide for all work to be placed under contract at the same time depending on availability of funds.

A project-specific contract is the traditional type of consultant contract between the agency and a consultant for the performance of a fixed Scope of Work related to a specific project or projects.





5.1.2 Multiphase Contracts

Multiphase contracts are similar to project-specific contracts except that the work is divided into phases such as survey, environmental, design, and right-of-way. Individual phases are negotiated and the work authorized while future phases may wait until later in the contract period before completing negotiation and authorization. Multiphase contracts give the agency some latitude in determining to what extent the consultant firm continues with the contract. They are also helpful for complex projects where the scope of a future phase is not well defined. They allow the agency to get complex projects under contract in a minimal amount of time but require continual negotiations as each phase approaches. Multiphase contracts permit the agency to terminate a contract at the end of a phase without the effort and possible disagreement associated with using the termination clauses in the contract.

A Multiphase contract incorporates the work order concept for a specific project. The consultant contract is based on a general scope of work with a maximum dollar value and specifies the expertise needed for the project. A work order is generated for the portion of the project where main and detail tasks can be identified.

5.1.3 On-Call Contracts

On-Call Contracts cover basic contractual requirements without defining specific projects. They are set up to handle a number of projects or specialized services which are established during the contract period. Generally, these contracts run for a period of several years. The base or general contract sets up specific agreed rates, services to be provided, length of contract, and maximum dollar amount of the contract.

The biggest advantage to this type of contract is the ability to get a specific project under contract in a minimal amount of time because much of the selection process has already been completed. Typically, On-Call Contracts are used when a specialized service will be needed for a number of different projects, e.g., field survey, wetland determination, and hazardous waste analysis. This is a very popular form of contract with many agencies. These contracts can range in scope from full service to single discipline functions.

A standard On-Call Contract requires a consultant to provide work and services on an as-needed or on-call basis. Work orders are generated to stipulate what work and services are required for specific projects. An on-call contract provides for the repetitive performance of a specific work task for items such as surveying and utility designations and locating.

5.2 Payment Methods

There are two basic categories of payment for consultant services: Negotiated Price and Cost Reimbursement. The primary difference between these two categories is that with the use of a Negotiated Price agreement, the consultant is assuming the cost risk of performance, whereas with the Cost Reimbursement category, the agency assumes the risk.

Negotiated Price contracts are most appropriate when the scope of services is well defined. On the other hand, Cost Reimbursement contracts should be used when such definitive requirements do not exist and the cost uncertainties of performance are high.

Within the above-named broad categories, the most frequently used payment methods are:

- Cost plus fixed fee—cost reimbursement
- Lump sum—negotiated price
- Cost per unit of work—cost reimbursement
- Specific rates of compensation—cost reimbursement

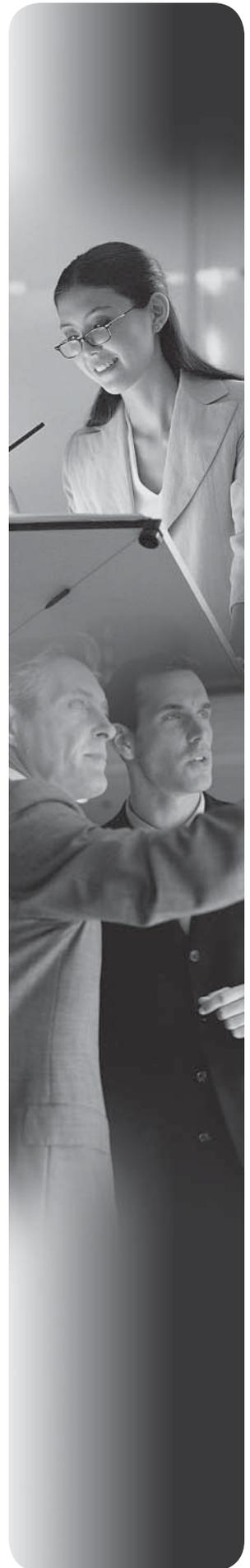
These are also the only methods of compensation allowed on Federal-aid highway projects. A single contract may contain different payment methods as appropriate for different elements of the work.

5.2.1 Cost Plus Fixed Fee

Cost Plus Fixed Fee is a Cost Reimbursement payment method. Once negotiated, the fixed fee does not vary, even though the actual cost may. However, it may be adjusted, through negotiation, as a result of significant changes in the work, services, or duration to be performed. Because the fixed fee does not vary in relation to the consultant's ability to control costs, the cost plus fixed fee contract provides for a low risk to the consultant and provides only a minimal incentive for effective cost management. Therefore, an audit at the completion of the work is very important. The fixed fee is based on the scope, complexity, degree of risk, and specialized expertise associated with the project.

This type of payment method is suitable for the performance of research, or preliminary exploration or study, where the required level of effort cannot be well defined. It is the most commonly used payment method for preliminary engineering and design. However, if preliminary studies and other information are sufficient to allow the development of a well-defined and specific scope of services, the lump-sum method might be more appropriate.

The Cost Plus Fixed Fee method is used when the Scope of Work is fairly well-defined, but the total engineering effort required to complete the work cannot be estimated precisely. The consultant is paid an agreed-upon amount for a fixed fee, based on actual Scope of Work completed, together with all actual costs incurred in the performance of the work and services. Once both parties have agreed to the work effort in an executed consultant contract, a change in the amount of fixed fee can be made if the scope of work or duration changes.





5.2.2 Lump Sum

Lump Sum is a negotiated payment method. Along with cost plus fixed fee, it is the next most commonly used method of payment. It provides for a price which is not subject to any adjustment because of cost changes the consultant might encounter in the performance of the work. Because the consultant assumes full responsibility, in the form of profits or losses, for all the costs under or over the firm negotiated price, it has a maximum profit incentive for effective cost control in contract performance. This type of payment method imposes a minimum administrative burden on the contracting parties. The Lump Sum method of payment is suitable when reasonably definite design or performance specifications are available and whenever fair and reasonable prices can be established and agreed to at the outset.

The Lump Sum method is used when the Scope of Work is well-defined and the total engineering effort can be estimated accurately. Once both parties have been agreed to the work effort in an executed consultant contract, a change in the amount of lump sum can only be made if the scope of work changes materially.

5.2.3 Cost per Unit of Work

This is a Cost Reimbursement payment method that provides for the payment to the consultant of allowable costs incurred in the performance of the contract, to the extent prescribed in the contract. This method of payment is suitable for use when the effort per unit of work is well-defined but the number of units is uncertain. It is essential that the consultant have a record of the actual work completed.

5.2.4 Specific Rates of Compensation

This Cost Reimbursement payment method provides for the acquisition of supplies or services on the basis of direct labor hours at specified fixed hourly rates (rates include wages, overhead, general and administrative expense, and profit), and material at cost.

This payment method should be used only when it is not possible at the time of contracting to estimate the extent or duration of the work or to anticipate costs with any reasonable degree of accuracy. This type of contract does not encourage effective cost control and requires almost constant monitoring. It can be used in the acquisition of engineering and design services and work to be performed for On-call contracts and in emergency situations. Examples include expert witnesses, some surveying requirements, geotechnical services and other small, open-ended tasks.

The Specific Rate of Compensation method is used when the Scope of Work and the required work effort cannot be determined at the time the consultant contract is executed. A specific rate of compensation is established for each labor class or employee by multiplying the wage rate by the specific rate factor established in each consultant contract.

5.2.5 Variances

Variances to the above payment methods include the following items:

- **Cost Limitations.** Contract cost elements include direct labor costs, direct project expenses, overhead (indirect labor and expenses) and a fixed fee. In an effort to control contracting costs, some states have placed limitations on some of these costs.
- **Maximum Amount Payable.** The contract should specify a dollar amount within which the consultant will complete all tasks in the scope of services.
- **Retainage.** Many agencies use retainage or other forms of guarantee for various reasons. The terms and conditions of the contract should clearly define these requirements, including periodic reduction in retention and the conditions for release of retention.

5.3 Audits

Agencies are required to complete audits for consultant contracts. These audits may include Preaward Audits, Audits of subconsultants, and Final Audits. Also audits may be conducted for indirect rates determination on an annual basis. Additional information and guidance on the auditing and reporting of the indirect cost rates of consultants can be accessed in the AASHTO Uniform Audit and Accounting Guide.

5.3.1 Pre-Award Audits

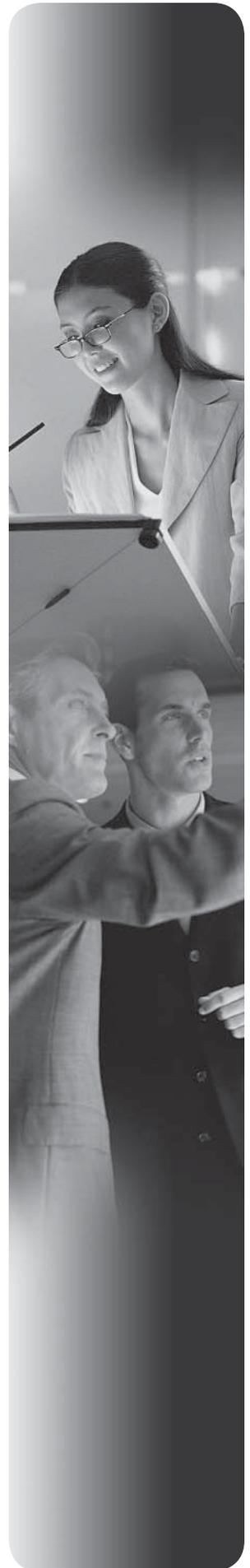
Financial audit of a consultant's accounting records which are conducted prior to contract initiation, are referred to as "preaward audits." Such audits are necessary when the agency has selected a firm it has not recently retained. The audit unit reviews the monetary records and bookkeeping practices of the firm to evaluate its financial strength and to ensure that the firm possesses the means to carry out the selected assignment. (Also see Chapter 3.5)

The audit unit also reviews the salary structure of the firm and evaluates its ability to segregate costs, by project, for billing purposes. The audit also establishes the indirect cost rate for the firm. This is essential because the predominant method of contract payment is cost plus fixed fee, where the reimbursement will be primarily direct labor costs plus a multiplier for indirect rates.

5.3.2 Audits of Subconsultants

Subconsultants may be audited when they are paid by the cost plus fixed fee method—the same as prime consultants. However, if the subconsultant is to provide a specific product, and compensation is to be at a fixed price, then the subconsultant may not need to be audited. Examples include photogrammetry (where maps are supplied) and special reports, for an agreed-upon price.

The audit requirement can be particularly burdensome for small firms; thus, efforts should be made to reduce the impact on their operations.





5.3.3 Final Audits

Many agencies require a final audit for each completed project. The main purpose of this audit is to determine the project's actual indirect cost rate for final payment. Since the majority of contracts specifies a cost plus fixed fee payment method, agency management often requires a final audit. The final audit also verifies the total actual direct labor and expense amounts.

The need for both preaward and final audits may impose a strain on limited audit staffs of most agencies. Projects may encounter significant delays while waiting for the preaward audit, because the contract cannot be finalized until the audit has occurred. In addition, project closeout delays can result when final audits cannot be conducted in a timely manner.

It is recommended that agencies give consideration to accepting audits of firms performed by other government agencies during a designated time frame, rather than pursuing individual preaward audits. This would save time and resources for both the agency and consultant. Most agencies use approved federal auditing procedures (known as Generally Accepted Accounting Principles, or GAAP); therefore, the results of an audit should be acceptable to all user agencies.

5.4 Detailed Scope of Services

The detailed scope of services describes what work will be required, the conditions under which the work should be conducted, how achievements will be assessed, and the obligations of both the consultant and the agency.

An effective scope of services is written in clear, unambiguous, and precise language. It contains provisions for determining the quality of the services or products rendered. Those preparing the scope of services should remember that it must communicate effectively with non-technically oriented people (buyers, administrators, attorneys) involved in the process.

The Scope of Work is an integral part of the contract development process. Costly modifications (in time and money) can often be avoided with a well-written Scope of Work, an accurate agency Estimate and effective consultant contract management. The Scope of Work may be developed from standardized tasks (or Work Breakdown Structures) in accordance with project conditions and parameters. A multi-discipline team should provide suitable details for the tasks in their field of expertise to complete the Scope of Work. The Scope of Work should also include input for specialized work and services such as photogrammetry and highway lighting.

Some agencies find it helpful to meet with the top ranked consultant and develop a detailed understanding of the responsibilities for the many facets of project development and the deliverables, schedules and other important criteria as applicable. This meeting is held just prior to the consultant's submission of a cost proposal.

5.5 Negotiate a Contract

The approved, top-ranked consultant is asked to submit a cost proposal. Prior to receipt of the consultant's proposal, the agency also prepares an engineer's independent estimate for the desired services, which then becomes the basis for ensuring that the consultant services are obtained at a fair and reasonable cost. Differences should be noted and during negotiations these items are discussed to determine if misunderstandings occurred in the definition of the work task or in the effort needed to accomplish the task.

The objective of the negotiation process is to reach a complete and mutual understanding of the detailed scope, schedule, and cost of services to be provided. This negotiation process offers the opportunity for both parties to refine and clarify the scope and services to be provided and the compensation for these services.

Items normally negotiated include:

- Work plan and project schedule
- Products to be delivered
- Classification, hours, and experience level of personnel to be assigned to this project
- On special projects, key consultant personnel may be specified in the contract and cannot be changed without agency approval
- Cost items, methods of payment and fee
 - Direct Payroll
 - Escalation
 - Premium Pay
 - Work Shift Differential

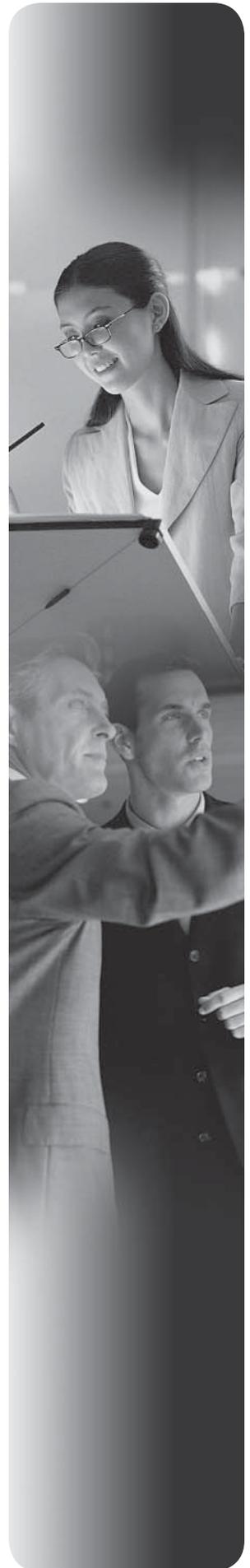
If both parties agree on all of the previous items, a written contract is then executed.

Negotiations should be formally terminated if an agreement cannot be reached with the top-ranked consultant in a predetermined reasonable period of time. New negotiations are then started with the next highest ranking firm.

The negotiation process is a concern for both the agencies and the consultant industry. Cooperation and communication by both parties during this phase of consultant selection is absolutely essential.

5.5.1 Direct Payroll

For Cost Plus Fixed Fee method of payment, Project Managers and Contracting Experts review the average payroll rate proposed by consultants based on historical invoicing information. Because both fixed fee/profit and indirect cost amounts are computed based on direct payroll, the reasonableness of the direct payroll rate is an effective tool for achieving a reasonable cost. In the event that the agency is evaluating a proposal for work and services that are extraordinarily difficult or unique, a higher average payroll rate can be considered.





In these cases, the consultant will need to present a justification that shows that the work and services at hand is indeed out of the ordinary. When the direct payroll exceeds reasonable limits, most frequently the Consultant has either assigned personnel that are paid more than the necessary rate or excessive person hours have been assigned to higher paid employees in each task for the purpose of oversight.

For other methods of payment similar limitations, adjusted for the demands of the work and services being considered, can be applied as deemed applicable.

5.5.2 Escalation

Escalation is typically limited to a percentage (e.g., three percent) per year unless a consultant can justify a higher rate based on historical data. Note that this may not limit performance-based pay raises, within established boundaries.

5.5.3 Premium Pay

In some states, the maximum premium pay allowed by the agency is established (e.g., 50 percent of the actual hourly payroll rate) for overtime and for hazardous duty (e.g., 25 percent of the actual hourly payroll). Premium pay is permitted only if the consultant has a written company policy for the payment of such premium to its employees, and charges all clients at that same rate. This written policy must be included in the consultant's Technical Proposal. No overhead or profit is allowed on the premium portion of overtime or hazardous duty pay.

Premium pay will not be provided in the consultant contract or invoiced unless the premium pay can be justified by the consultant. This justification should show and conclude that deliverable time frame demands cannot be met even if all available employees are assigned to the project.

5.5.4 Work Shift Differential

Generally, the agency will not allow any charges for pay scale differences in work shifts.

5.5.5 Indirect Costs

Depending on the method of payment for a Consultant Contract Part or Work Order, overhead costs are evaluated accordingly:

- **Cost Plus Fixed Fee**—The consultant will normally use his current, approved indirect cost rate to develop the Price Proposal to establish a budget and for invoicing. The indirect cost rate will need to be adjusted over the life of the contract.
- **Specific Rate of Compensation**—The consultant will typically use the latest, best indirect

cost information to develop the Price Proposal to establish a budget. The Specific Rate Factor developed at the time of execution of the legal contract will be used for Amendments and invoicing for the life of the consultant contract, unless new Scope of Work is introduced.

- **Lump Sum**—The consultant will usually use the latest, best indirect cost information to develop his Price Proposal to establish a budget. If an Amendment is needed, the same method will be used during the processing of the Amendment.
- **Cost Per Unit of Work**—The consultant will normally use the latest, best indirect cost information to develop his Price Proposal to establish the Unit Costs. If an Amendment needs to be processed to establish new Units of Work, the latest, best indirect cost information should be used to establish the costs.

5.5.6 Direct Costs Other Than Payroll

When the agency finds it appropriate to reimburse for travel, lodging, and subsistence, a provision allowing such reimbursement should be included in the consultant contract.

The consultant should own most of the equipment required to provide the work and services. The cost of this equipment should be included in the consultant's indirect cost rate. Costs for specialized equipment should be billed at the actual cost incurred by the consultant. Equipment should be considered "specialized" if it cannot be considered standard equipment for that particular consultant's normal operating business needs.

Compensation for direct costs should be documented in the contract.

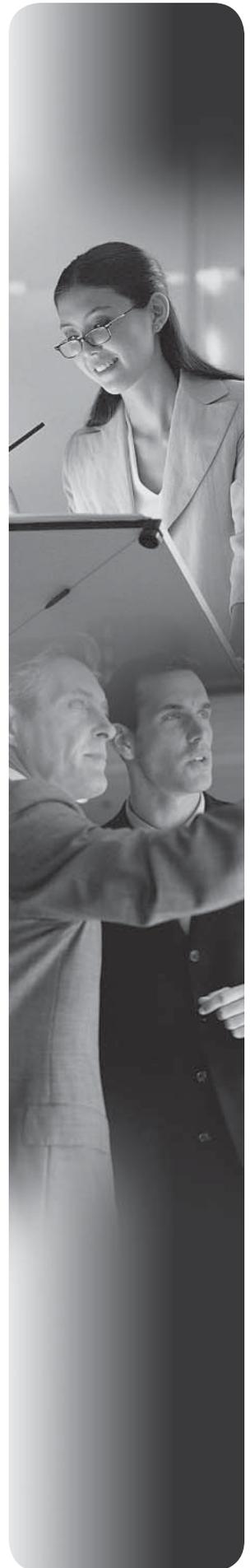
5.5.7 Fixed Fee or Profit

The allowable lump sum for fixed fee or profit will normally consider the degree of responsibility to be assumed by the consultant. Other considerations that may enter into the negotiation include:

- Scope of work
- Complexity
- Character
- Date of beginning and duration of work and services
- The consulting profession's expected return for such work and services
- The conditions under which they are expected to be performed
- Other factors and markups as contemplated at the time of submission of the proposal

5.5.8 Costs by Subconsultants

Subconsultants will be held to the same guidelines as prime consultants. Evaluations will be coordinated through the prime contractors.





5.5.9 Non-Professional Services

Non-Professional Services may include items such as core borings, subsurface drilling, traffic control services, rigging, helicopter services, and fixed wing flight services for photogrammetry.

The selection of the consultant to provide non-professional services should be approved by the appropriate agency's authority. Documentation of the bid results or price quotes should be retained in the project file.

If laboratory testing services for geotechnical investigations, structure testing or other types of evaluations are being considered, they will be categorized as Non-professional Services. The Consultant will include a schedule of prices per test in his price proposal. This testing may be provided by either the administering Consultant or, if he does not provide the service in-house or have a laboratory certified by the AASHTO Materials Reference Laboratory (AMRL), another AMRL-certified laboratory. Test results will need to be reviewed and attested by a Professional Engineer, registered as such in the respective state.

5.6 Negotiation Guidelines for Methods of Payment

Prior to the start of negotiations, an agency prepares an estimate of the person hours needed to complete consultant work. The contract becomes the basis of negotiating with the consultant for the various contract payment methods.

In addition, agencies must establish DBE goals on consultant contracts. DBE goals and payments are closely monitored through the life of the consultant contract.

5.6.1 Engineer's Independent Estimate

The Engineer's Independent Estimate is a written itemized estimate normally prepared by the agency prior to the receipt of the consultant's priced proposal. The estimate will have an appropriate breakdown of specific types of labor required, work hours, indirect costs, and an estimate of the consultant's fixed fee for use during negotiations.

The agency determines the work and services required, and then prepares a person hour estimate for the required work and services.

The independent agency Estimate becomes the basis for ensuring that the consultant work and services are obtained at a fair and reasonable cost consistent with normal reimbursement for the work and services required and will be used as a basis for the agency's negotiations with prospective consultants. The contract team personnel responsible for preparing or reviewing portions of the scope of work need to assist the agency's Project Manager in the development of independent person hours, items for direct costs other than payroll, and other various cost estimates.

On-Call Contracts do not have any work orders associated with them at the beginning, and therefore agency estimates for these actions are not detailed. However, each work order has associated scope of work tasks and detail tasks which are estimated and submitted separately for each work order.

Whether working under a Project Specific contract, or work orders under an On-Call Contract or Multiphase contract, the understanding of the scope of work may change. As a result, the agency estimate may change as well.

If the scope of work is found to be insufficiently detailed to prepare the estimate, the scope of work should be updated before the estimate is completed.

5.6.2 Cost Plus Fixed Fee

If the consultant's person-hour estimate exceeds the agency's person-hour estimate by an established percentage (e.g., more than 10 percent), the person-hours should be negotiated.

When negotiations are necessary, a breakdown by task of comparisons between the agency's and the consultant team's estimates needs to be developed. For those tasks which are outside of these limitations, ask all consultant(s) contributing to the team's estimate to provide detailed justification for their estimate, including all assumptions and production rates on a task-by-task basis. Using these tools, a negotiation position as to the reasoning for the agency's estimate needs to be developed through internal discussions among all contributing team members prior to discussions with the consulting team. Both the agency's and the consultant's estimates need to identify all anticipated meetings with person hours included in the appropriate tasks.

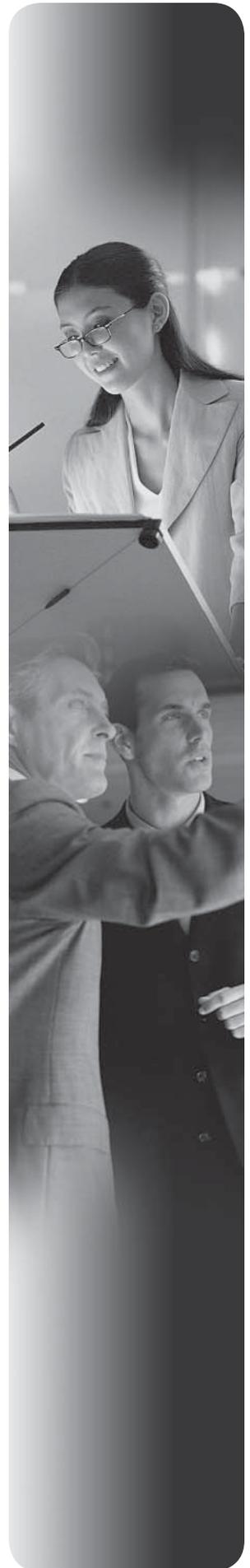
If the consultant's person hour estimate is below (e.g., more than 10 percent lower than) the agency's estimate, the agency will closely evaluate the consultant's proposal to ensure that the consultant can provide the required work and services at the proposed cost. If it is determined that the consultant understands the scope of work adequately, the lower person hour total will be accepted. However, if there is a misunderstanding of the scope of work both the technical and price proposals should be revised accordingly.

5.6.3 Specific Rate of Compensation

The agency will establish person hours in the scope of work. Generally, there will be no allowance made for unanticipated meetings and management of the work force.

5.6.4 Lump Sum and Cost per Unit of Work

If the consultant's person hour estimate is over the agency's person hour estimate by an established percent (e.g., 10 percent for projects), the person hours should be negotiated.





5.6.5 Agency Certification

Only Disadvantaged Business Enterprises (DBE) with proper certifications count toward the DBE goal. In order to be considered eligible to meet the goals for agency projects requiring DBE participation, the DBE consultant must have a current DBE certification on file with the agency on the date the statement of interest is due as specified in the advertisement.

The Federal Highway Administration and many states require a percentage goal for participation by Disadvantaged Business Enterprise (DBE). The state questionnaire indicated that DBE participation was a consideration in consultant selection in 80 percent of the states. DBEs can be either prime or subconsultants.

5.7 Contract Language

The contract should clearly outline the terms and conditions under which the consultant is expected to work. The contract is a legally binding agreement, and care should be taken to ensure that all parties clearly understand its terms and conditions. When a dispute over the intent of a contract arises, a fundamental precept is that the written word takes precedence over any verbal understandings. Refer to Appendix C for sample contracts from several agencies. Following are items typically addressed in a contract.

5.7.1 Definitions

For terms used in the contract which may otherwise be subject to misunderstanding or differing interpretation, it will typically be necessary to establish definitions.

5.7.2 Errors and Omissions

All consultant contracts should have a clause which requires the consultant to perform work in accordance with sound, prudent, appropriate, and required professional standards and practices, and which protects the agency from errors and omissions by the consultant. The clause should also state that the consultant will redo, promptly and without additional cost to the agency, any work which does not meet state criteria.

Responses to the state questionnaire indicated that over 70 percent of states have an errors and omissions policy, and a similar number have also developed procedures that provide guidance for addressing individual engineering and design-related services contracts. Other states are in the process of developing errors and omissions policy. A number of responses commented that the state will advise the design consultant as soon as it becomes aware of an error or omission. The design consultant then has an opportunity to correct the error, but may be liable for any increase in construction costs. Most states have direct experience with claims against consultants who committed errors or omissions. The experience has been quite varied, as has the nature of the claims. In some cases, consultants have been required to correct the design error, or provide work of equal value.

Several states have been successful in recovering the costs of correcting design errors and the associated construction costs. Some consultants have recognized errors, and willingly negotiated reimbursement; others have stalled and proceeded to litigation.

5.7.3 Indemnity (Liability)

All consultant contracts should contain a clause which provides for reimbursement of the agency for any losses determined to have been caused by the consultant or to have resulted from the consultant's work. The loss may comprise damage to a facility (e.g., a collapsed bridge), damage to the property of others, or claims of personal injury. To the extent that property damage or personal injury is caused by the consultant's negligence, the consultant should be contractually obligated to pay for the loss. An indemnity provision should be included in the contract so that such liability will be covered by the consultant's insurance. Imposing uninsurable legal obligations on a consultant is not productive and makes problem resolution very difficult. An indemnity provision which requires the consultant to reimburse the agency for the proportionate share of a loss caused by the consultant's negligence is usually insurable.

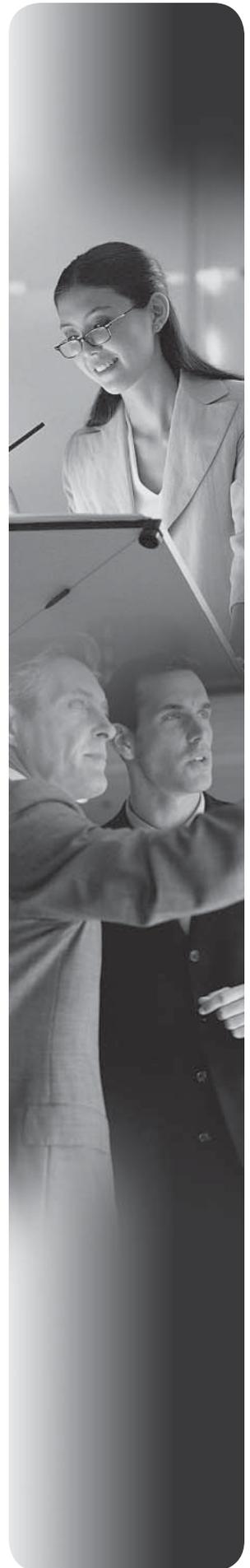
5.7.4 Insurance

The agency should complete an analysis of the risks involved and determine appropriate insurance requirements. The consultant should be required to insure the types of losses which may be caused. For example, the consultant should certainly carry state-required workers' compensation insurance, as well as automobile insurance. Since the consultant is selling professional services, work errors are covered by professional liability insurance and not by comprehensive (or commercial) general liability insurance.

Responses to the state questionnaire indicated that over 80 percent of states require professional liability coverage. The dollar amount of coverage varies. In many cases, the amount is dependent upon type or magnitude of project. Minimum coverage requirements typically begin at \$250,000. More than half the states that require professional liability coverage specify a minimum coverage of \$1,000,000 or more. A coverage amount which varies with contract type and size is recommended. Such a practice would provide needed protection to the agency and not needlessly burden small firms with difficult-to-meet high minimum requirements.

Larger, more complex or more risky projects should carry requirements for larger amounts of insurance. The agency should have a process for evaluating projects and establishing a reasonable amount of insurance. The agency should also require proof that the insurance is in effect during the course of the project and a reasonable period of time after completion by having the consultant provide "certificates of insurance," which are readily available, to verify that insurance coverages are in effect.

Nearly all insurance coverage is provided for a one-year period. Therefore, if coverage expires during the course of a project, the consultant should provide new certificates of insurance reflecting renewed coverage.





5.7.5 Key Personnel

Any substitution or transfer of personnel specifically identified in the consultant's proposal or contract as assigned to work on the project should be subject to the prior approval of the agency. In the event the consultant requests a change in key personnel, the project manager should review the qualifications of the replacement person to ensure that the person is sufficiently qualified to assume the position.

5.7.6 Dispute Resolution

states, consultants, and construction contractors all recognize that litigation is often a process much too expensive and time-consuming for effectively resolving disputes. It is imperative, therefore, that an agency include contractual language for a dispute resolution process. This process should cover a variety of problems which may arise, including errors or omissions. Firstly, the process should bring all affected parties together quickly to fix the problem and, secondly, to allocate cost. There are many types of dispute resolution procedures available. Assistance in preparing an appropriate one can be secured from any State Attorney General's office. A procedure that is fair and proceeds quickly stands the best chance of securing the cooperation of the involved parties and of successfully avoiding litigation.

5.7.7 Disadvantaged Businesses

All consultant contracts should have a clause stating the goal for participation by Disadvantaged Business Enterprise (DBE) firms. Contract goals are established as per 49 CFR Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs.

The Federal Highway Administration requires a percentage goal for participating by DBE firms. Most, but not all, states have DBE requirements in engineering and design services contracts, and several have outreach programs to encourage DBE participation. Typically, the DBE requirement is stated in the contract requirements, and proposals should meet the minimum requirements to be considered. Practices vary widely, however. Some states give priority to DBE content in selecting proposals, others consider it, and, for some others, DBE content is not part of the selection process. In a few states, DBE goals are met on construction contracts, and are not part of the consultant selection process.

5.7.8 Extensions, Modifications, and Terminations

The very nature of agencies' work often requires changes to be made during the process. Many times these changes result in a contract modification. A well-written scope of services and effective contract management will facilitate processing a modification.

The change method should be clearly specified in the contract language to avoid later misunderstandings. Similarly, the procedures to authorize additional or extra work should also be specified to minimize subsequent disputes.

Some agencies may consider changes based on charged indirect cost rates. Some agencies allow for consultant employee salary adjustments in the event of a contract time extension. Every contract should have a specified completion date and should clearly indicate whether adjustments to the salaries and fees will be allowed simply due to time extensions. Again, clearly setting forth the conditions will avoid later disputes.

Conditions for a stop work notification (termination or placing a project on hold) should also be specified. Agencies usually specify that any contract can be terminated if it is deemed to be in the public interest.

5.7.9 Subconsultants

Professional services contracts may involve one or more subconsultants. It is important that these subconsultants and their anticipated participation be identified in the contract. It should be clearly stated that the general provisions of the contract also apply to the subconsultants.

Necessary changes in subconsultants should also be provided for by the contract. The agency should have an approval mechanism to allow the consultant to add or substitute subconsultants.

Some states require that contracts contain a provision that the prime consultant promptly pay the subconsultants promptly.

The contract should clearly state that the prime consultant is fully responsible for delivering all the work required in the contract, including that done by subconsultants.

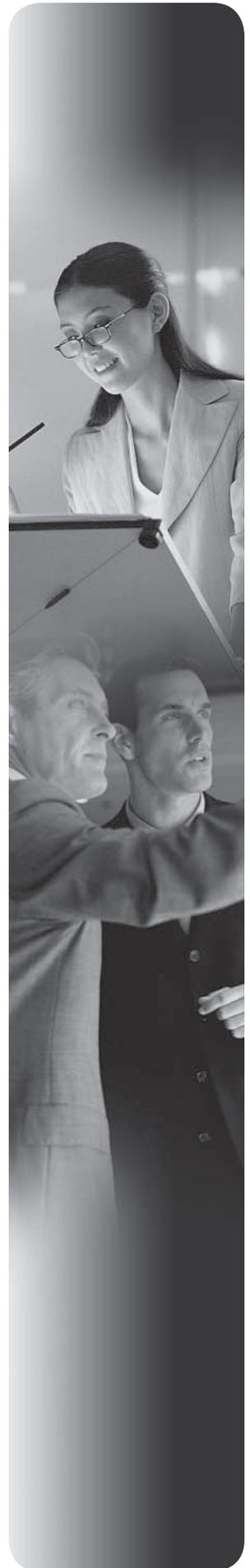
5.7.10 Special Considerations

Many states may have policies that affect all contracts including consultant contracts. These items should be addressed as appropriate in the contract. Examples include:

- Prohibitions on firms doing business with particular countries
- Requirements that preference in hiring be given to local residents
- Requirements that a percentage of the work be done in-state
- Prohibitions against using recent state employees on the contract
- Requirements or goals for using Women Owned Businesses, Minority Owned Businesses, and Disabled Veterans participation.

5.8 Legal Review

Agencies require that a staff attorney review contracts and sign off prior to the final agency signature. Contracts may be assigned to any one of several attorneys, all of whom typically have other responsibilities. It is recommended that agencies use standard termi-





nology for agreements. This reduces the review time by attorneys and helps expedite the contract approval process.

The agency attorney's review should include:

- Verification that terms of the contract are clear and unambiguous;
- Verification that the terms of payment are correct;
- Confirmation that the individual signing for the consultant firm is legally authorized to enter into agreements for the firm. Many jurisdictions will also require a corporate resolution that authorizes a specific individual to sign for the corporation or partnership;
- Confirmation that the appropriate state agent's signature is included. It is customary to delegate signatory power, and there may be statutory restrictions governing which agency level can sign certain documents. The agency attorney should verify that the signature is appropriate and meets statutory requirements; and
- Verification that the contract complies with all relevant federal, state and local laws, rules, and regulations.

Agencies often designate one office to be the coordinator with the legal staff. This office should review contracts for completeness before sending them to the attorney. When multiple units prepare contracts, consistency may suffer and the legal reviews could take much longer.

Many contract provisions are required by law or regulation, or may otherwise be desired in all consultant contracts. Such provisions are known as "boilerplate" provisions. The agency is urged to standardize as much of the language as possible to simplify the review process and provide consistency in its contracts. Sample "boilerplate" contract language may be found in Appendix C of this guide.

5.9 Contract Execution

The agency should establish a process for obtaining required approvals and executing legal contracts. Upon execution, the agency grants the consultant a Notice to Proceed.

Consultant contracts may be between the agency and Individual, Partnerships, Corporations, or Joint Ventures. The precise details of the legal agreement will vary depending upon the corporate structure of the parties to the agreement. The signatories to the contract should have the legal authority to bind the organization to the contract.

Chapter 6: Managing Consultants

Several methods for managing consultants have proven to be effective. The most common is in-house management of consultants. Two less-commonly used methods used in some agencies include using consultants to manage other consultants under agency direction, and a combination of in-house consultant management combined with consultants managing other consultants.

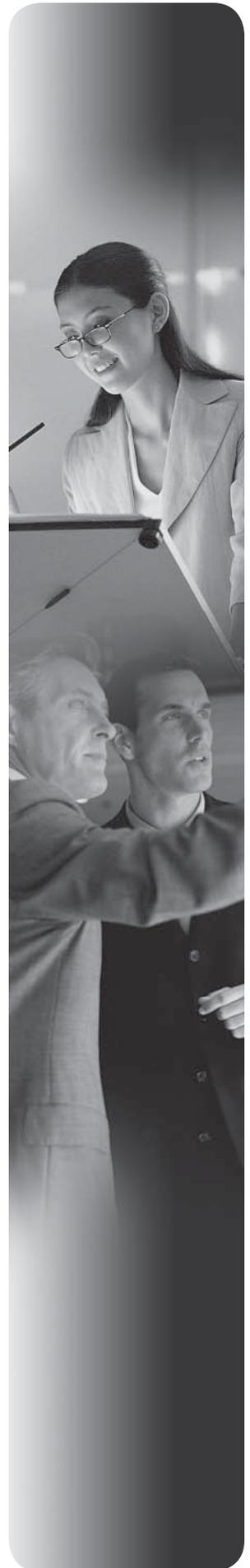
In-house management provides direct agency control over consultant study or design activities. Small consultant programs may be effectively managed by designation of dedicated agency staff within various work units. Efficient management of large or long-term consultant programs, however, may necessitate a dedicated in-house consultant management unit. An in-house consultant management unit should consist of experienced multi-disciplinary staffs that are knowledgeable about the agency's methods, procedures, standards, and organization.

The use of consultants to manage other consultants (consultant managed contracting) allows state agencies to respond quickly to large program increases and provides both technical and administrative management functions. This is particularly useful when the agency lacks sufficient qualified staff to manage these functions for a large consultant program. The responses to the most recent survey indicated that approximately one quarter of the states have used program management consultants. The relatively low level of usage reflects concerns about liability, reduced agency control and higher costs.

A combination of the in-house and management consultant approaches may be useful for periods of transition into special or increased program demands. This approach allows agencies time to develop in-house staff as required to satisfactorily manage the additional consultants required.

In some cases, project managers are responsible and accountable for maintaining technical and administrative control of both the project and the consultant. It should be emphasized to the consultant and agency staff that the project manager is the agency's representative responsible for administration of the contract. The project manager should be experienced in the technical aspects of the work being contracted for and have a working knowledge of the administrative contract management process. However, project managers are not supervisors of the consultant. The relationship between the project manager and consultant is defined in the contract. Supervision of the consultant's employees and their work is the contractual duty of the consultant's manager while the agency's project manager is responsible for the delivery of a final product which is of high quality, on-budget, on-time and within the scope, quality standards, budget and schedule specified in the contract.

Some agencies with larger consultant programs may use a consultant management team consisting of the project manager who will provide technical monitoring of the





project and a contract manager who administers the consultant contract. This allows the project manager to concentrate on technical, budget, and schedule issues. The contract manager supports the project manager by administering the terms and conditions of the consultant contract.

The most effective consultant management process is one that closely resembles the management process for projects developed in-house. This benefits the agency in terms of reduced effort during review and approval processes and brings greater efficiency to development of quality products.

The Federal Highway Administration states in its Project Management Plan Guidance (<http://www.fhwa.dot.gov/programadmin/mega/pmpguide.cfm>) that the ultimate purpose of project management and a Project Management Plan is to clearly define the roles, responsibilities, processes, and activities which will result in the Major project being completed (1) on-time, (2) within budget, (3) with the highest degree of quality, (4) in a safe manner for both the individuals working on the project and for the traveling public, and (5) in a manner in which the public trust, support, and confidence in the project will be maintained. The plan addresses the design and construction phases of the Major project life cycle, and ensures that the project will be managed holistically and as a continuum...not incrementally as the project progresses. Obviously, this purpose is appropriate whether the project is developed by an agency's staff or by a consultant.

While all states practice project management to varying degrees as generally determined by the magnitude of the project, the application of project management techniques may be very limited on small, routine-type projects while on larger, more complex projects a more formal project management approach may be taken.

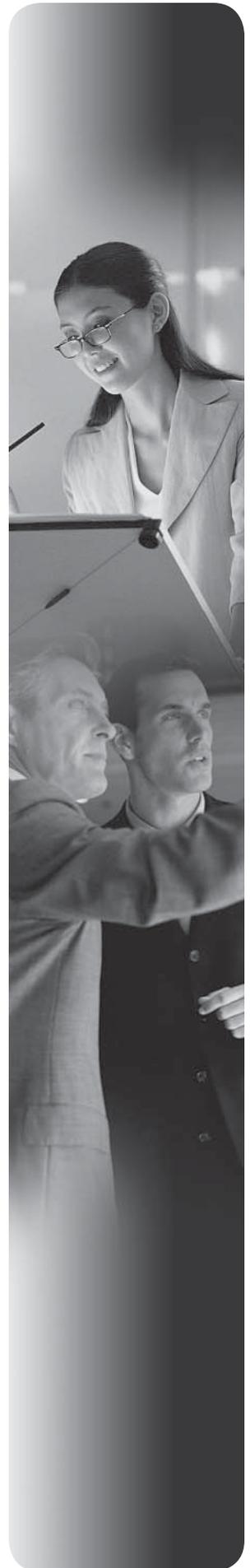
Additionally, NCHRP Synthesis Reports #277, published in 1999 and entitled *Consultants for Transportation Agency Preconstruction Engineering Work*, provides information and guidance to transportation agencies. It is also of interest to engineering consultants who do work for state agencies. It describes current practice in contracting with consultants for the transportation agency's preconstruction engineering work. This synthesis documents the practices in all stages involved with obtaining consulting services, from the initial designation of projects for consultant work to project completion and acceptance procedures. The synthesis collected the views of selected consultants on transportation agencies' practices. Information in the synthesis was collected by surveying U.S. transportation agencies and by conducting a literature search. This report of the Transportation Research Board provides information on the history and trends in outsourcing of preconstruction engineering activities and compares current levels with those found a decade earlier. The steps in the procurement and management of consulting services are provided in detail. These include deciding on when and what to contract out and the selection, negotiation, and consultant management activities that follow. Finally, the appendices in the synthesis contain numerous samples of collected forms and procedures used by a variety of states to accomplish this work.

6.1 Agency Project Manager Responsibilities

The project manager is one of the key individuals involved in the delivery of any project. Project managers are responsible for the success of their projects. A successful project meets the project objectives, on time, within budget and at an appropriate level of quality. To accomplish the objectives of a successful project, project managers should have a clear understanding of their responsibilities and roles. The proper stewardship of resources is a fundamental responsibility of project managers and staff. Resources should be used consistent with the agency's mission and in compliance with laws, rules, regulations and procedures. Agency employees should ensure that resources are used efficiently and effectively to achieve the intended results. Project Team Members are responsible for providing timely project deliverables to ensure overall on time and on-budget completion of the project. Functional area managers are responsible for effective resource allocation to meet the needs of the project and exercising proper controls over the project development process.

The following list describes the typical responsibilities of project managers:

- **Scope.** The scope defines the project objectives. The project manager should follow the scope carefully to ensure that it is met and that only work defined in the scope is undertaken. Work beyond that authorized in the scope is known as "scope creep," and it is unnecessary and expensive.
- **Contract.** The project manager should responsibly manage contracts to ensure that all contract provisions are completed. If there is not a formal contract, such as for in-house projects, there is an implied contract with the management of the agency. It is the role of the project manager to meet the contract objectives.
- **Cost.** Keeping cost within the budget is a primary responsibility of the project manager.
- **Time.** Completing the work on time is another major responsibility of the project manager.
- **Quality.** The project manager should deliver a product of a quality that meets or exceeds the standards of the agency and the profession.
- **Risk.** There is some risk associated with all projects. The project manager, whether consultant or the agency's, should be aware of risks and work to reduce or eliminate unacceptable risk to the project. Risk management is an important and often overlooked role of the project manager.
- **Communication.** The project manager should communicate effectively to be successful. All communications skills are important: writing, speaking, conducting meetings, interpersonal exchanges and listening.
- **Human Resources.** The largest single expense of most projects is usually labor, so the efficient and effective use of staff should be a concern of project managers. Project managers should always be concerned about development of the project staff and delegate effectively so that people can grow professionally. Staff development is a particular concern for consultant project managers. Not all agency project managers have personnel responsibilities; nevertheless, they should be concerned about the development of less experienced people assisting them. The development of consultant personnel is also in the interest of the agency and should be encouraged by the agency project manager.





6.2 Authority

The Project Manager should have access to all financial information related to the project. The Project Manager should, at a minimum, have substantial input toward the approval of any scope, budget, and schedule changes. As was discussed previously, project managers have clear responsibilities. Project Managers and their project team should clearly understand these responsibilities as well as the limits of their authority. What decisions can they make and what should be deferred to others in higher authority? What actions should be reviewed by others before beginning? These responsibilities and the authority of a project manager apply equally to an agency's representative and to the consultant's representative.

6.3 Communication

Good communication among the consultant, the project manager, the contract manager, and other affected parties is crucial to the success of the project. A single point of contact needs to be established in order to maintain control of directions given to the consultant. Some communication methods available to the project manager are:

- **Post-Award Orientation**—Post-award orientation meetings with consultants to discuss procedures during the contract period will eliminate many misunderstandings. These meetings should cover such issues as progress reporting, payment requests, interpretation of contract terms and conditions, contract modifications, evaluations, and other related items.
- **Progress Meetings**—Periodic meetings should be scheduled so all participants can plan accordingly. These meetings should be formal, with an agenda and minutes distributed to all interested parties.
- **Consultant Office Visits**—Visits to the consultant's office allow the project manager to become familiar with the consultant firm and staff, and to review and verify progress to date. This will foster development of a good working relationship between the agency and consultant. Conduct and frequency of visits are dependent on each agency's requirements or preference.
- **Scheduled Review Meetings**—Regular meetings should be conducted with the consultant to ensure the milestones established in the work schedule of the contract are on schedule. As necessary, additional conferences between the consultant, the agency, and other appropriate staff should be conducted.
- **Performance Evaluation Meetings**—In connection with periodic written evaluations regarding the consultant's performance, meetings may be held to provide constructive feedback, encourage communication, create an environment for continuous improvement, and to initiate corrective action when needed.
- **Partnering Conferences**—If partnering is included in the contract, partnering conferences may be held at the onset of projects at which all interested parties meet to establish formal commitment to common goals and objectives, chart communication and disputes resolution links, and begin team building activities to facilitate good project communication. These conferences may be conducted by a hired facilitator or in-house staff experienced in partnering activities. Follow-up conferences help keep the project development in line with established goals and objectives and renew team building.

6.4 Technical Monitoring (Scope of Services and Technical Compliance)

Technical monitoring of the project includes progress reviews, identification of problems or issues not addressed in the contract, requests for needed assistance, technical review by functional areas of expertise, and instructions for corrective action. The project manager and the consultant should appropriately document their monitoring activities. Methods available to the project manager to facilitate monitoring are as follows:

6.4.1 Project Management System

A system that will allow the project manager to track the status of the project in a format tied to task completion, deliverables, and required resources. There are a multitude of project management software solutions available to help the project manager monitor and control the project. However, to assist the project manager in monitoring and controlling the project, the project management system should include modules that monitor:

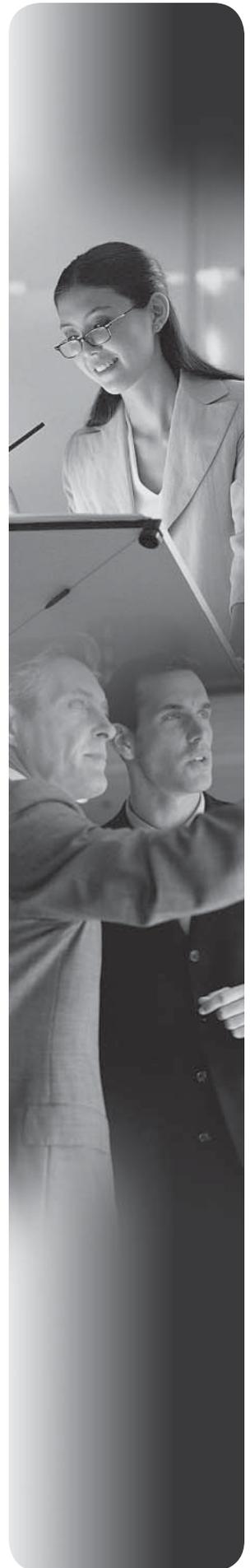
- Scope
- Budget
- Schedule
- Quality

6.4.2 Electronic Transfer of Technical Data

Most state transportation agencies have established procedures for providing consultants with electronic access to technical agency data such as: design standards, detail drawings, typical sections, special provisions, title sheets, and aerial mapping. Use of electronic transfer of this type of data is recommended in instances where the process is acceptable and beneficial to the agency and the consultant community.

6.4.3 Progress Reports

Monthly progress reports should be furnished to the project manager by the consultant or agency units to document the status of the project. These progress reports serve as an excellent means of communication for the project team. They also serve as an excellent early warning system for identifying issues that arise on the project. The reports should be submitted in writing in a format provided by the agency. A process for reporting status to upper management should be a part of this system. The system should allow the project manager to verify information provided and approve consultant payment requests. Figure 6.1 shows an example chart from a progress report.



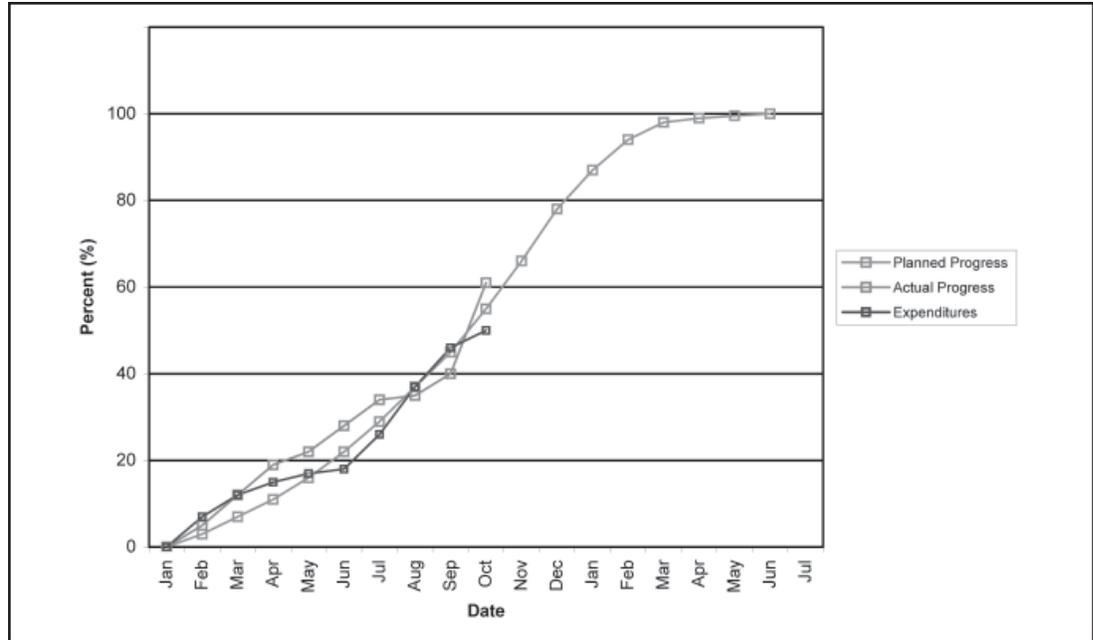


Figure 6-1. Progress Report

6.4.4 Quality Control and Quality Assurance

It is recommended that the consultant be required to provide documentation of their quality control program prior to notice to proceed. On-site visits by the project manager should be conducted to verify use of the quality control program (quality assurance).

6.4.5 Scheduled Review Meetings

Regular meetings should be conducted with the consultant to ensure the milestones established in the work schedule of the contract are on schedule. As necessary, additional conferences between the consultant, the agency, and other appropriate staff should be conducted.

6.4.6 Performance Evaluations

Periodic written evaluations regarding the consultant's performance should be provided. The evaluations give the consultant a written record of performance. Some states provide interim evaluations resulting in constructive feedback, encouraging communication and bringing about continuous improvement. These evaluations may also be used as an element in the process of future consultant selections. Some agencies provide opportunities for consultants to respond in writing to their evaluations. These evaluations are often numerically scored and include such elements as:

- Adherence to established schedule
- Quality of plans
- Completeness of plan submissions
- Responsiveness to project needs
- Adherence to project scope
- Adherence to project budget
- Utilization of DBE firms
- Working relationship (cooperation and communication) between the consultant and the agency
- Performance in dealing with the project's stakeholders
- Timeliness
- Timeliness and accuracy of billing
- Performance of project manager and staff
- Technical abilities of consultant
- Customer service

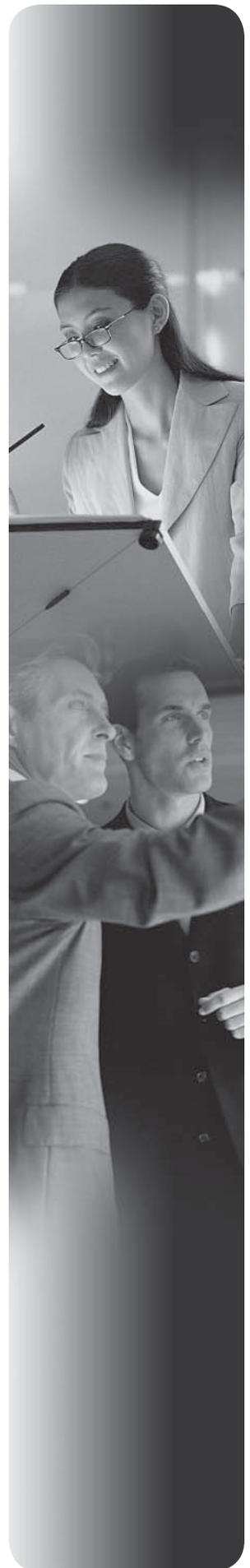
Many states place these evaluations in a database and utilize these consultant evaluations as an element in the selection process on future projects. These evaluations are generally signed by the agency's representative and the consultant's project manager. Generally, most agencies also have an appeals process in place for consultants who believe their evaluation is incorrect. Additionally, some states perform construction quality reviews both during and after construction of the project which include an examination of the project's constructed quality including the role that the quality of the design plan quality plays in the quality of the constructed project. Examples of consultant evaluation forms and procedures are found in Appendix D of this guide.

6.4.7 Budget Control

The project manager is responsible for monitoring the project budget to ensure that the progression of work is commensurate with the budget and amounts expended. The project management system should be an effective tool in maintaining budgetary control of the project. The system needs to be able to forecast potential budget overruns several months in advance of need to adjust budget or reduce scope.

6.5 Key Personnel

In the event the consultant requests a change in key personnel, the project manager should review the qualifications of the replacement person to ensure that the person is sufficiently qualified to assume the position. One approach to better defining roles, responsibilities and authority of project team members is to use a responsibility matrix. This matrix clearly shows all project participants what each other's role is and facilitates better communication and project execution by placing accountability and responsibility for the





various project activities in front of the team. Table 6.1 shows an example of a Responsibility Assignment Matrix.

Table 6-1. Example of Responsibility Assignment Matrix

Project Element	Project Team Members						
	1	2	3	4	5	6	7
Roadway	S		A		R	I	
Hydraulics	S	R				A	I
Hydrology	S			A		I	
Stormwater Management	S		R	R		A	
Bridge		I	A		S	R	
Retaining Walls	I	R			S		A
Traffic Control Devices			A		S	R	I
Bridge	I	R		S		A	
Maintenance of Traffic		R	A		S		I
Sequence of Construction	I		A		S	R	
Specifications, Special Provisions		R		S	I		A
Construction Estimates		R	I		S	A	

Participant Role
 P = Participant
 A = Accountable
 R = Review Required
 I = Input Required
 S = Sign-off Required

6.6 Disputes

In general, the agency should not intercede in disputes between the consultant and any subconsultants. Requirements that the agency has regarding subconsultants should be clearly stated in the prime consultant's contract. However, there may be occasions where the agency may believe it is in their best interests to intercede between the prime consultant and the subconsultants such as in disputes concerning lack of timely payments to subconsultants and poor performance.

6.7 Post-Design Services

On some projects it may be advisable to include in the contract, or in a separate contract, a provision for use of the design consultant to review shop drawings and to respond

to design issues that may arise during construction. The designer should be available during the construction phase to promptly answer questions and address issues concerning the project design intent. The project manager should ensure that communication among the consultant, project manager, and construction staff is facilitated. This will allow problems to be resolved quickly and at the lowest possible level.

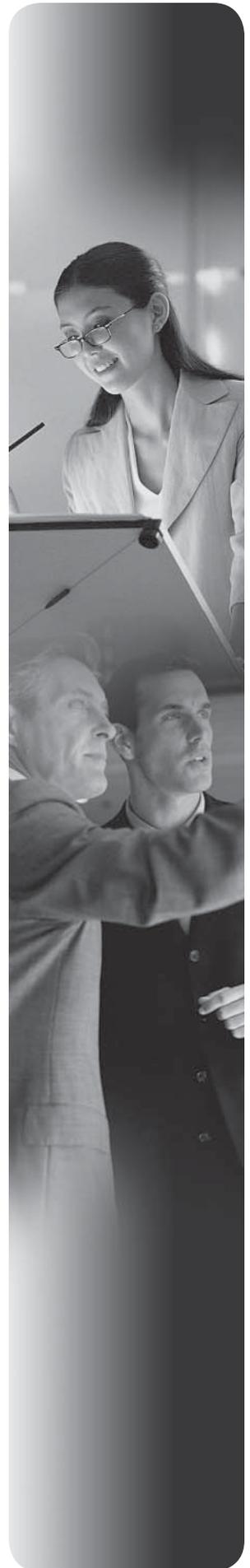
6.8 Errors and Omissions

Transportation agencies are focused on taking reasonable steps to preclude significant design errors or omissions both by their own designers and by consultants. Upon discovery of a potential design error or omission, immediate action is mandatory to minimize potential delay costs. This should include communication with the designer unless the solution is immediately obvious without this input. The consultant should be made aware of the circumstances and put on notice as soon as possible that there may be a claim against them for errors or omissions. The consultant should generally be given an opportunity to help resolve problems that arise during construction as a result of unforeseen conditions or potentially due to plan errors or omissions.

Agencies may seek to recover costs incurred as a result of design errors or omissions determined to be the liability of a consultant. If the error or omission results in additional quantities being added to the project that would have been required anyway, often no compensation is sought from the consultant unless obtaining the additional quantities caused a delay in the project and there were other costs associated with the delay or there were premium costs created because new pay items had to be set up to pay for additional quantities. All alleged design error or omissions and the known facts surrounding the alleged error or omission should be carefully and fully reviewed by the agency's personnel and the affected consultant. If necessary, a review committee may be established to determine the official position of the agency with respect to liability for additional costs incurred as a result of a particular alleged design error or omission. Decisions in this area are generally subject to appeal at the option of the consultant.

At the first indication of a potential design error or omission, the Project Manager should take action to effectively deal with the situation. Some of these actions might include:

- Immediately notifying the next level of management in the agency;
- Alerting subordinates that more detailed documentation than that normally required on the work performed may need to begin;
- Notifying the consultant and offering the consultant an opportunity to participate in a solution;
- Attempting to resolve the issue;
- Reviewing all available information, including costs, and determine the appropriateness of attempting to secure reimbursement from the consultant for the legally recoverable additional costs incurred as a result of the alleged error;
- Requesting legal assistance if legal interpretation is required;





- Dropping further action if it would not be appropriate to pursue reimbursement from a cost viewpoint;
- Leading the review in the agency's deliberations to determine if the consultant has responsibility for the alleged error or omission, if reimbursement should be pursued, and amount of reimbursement;
- Notifying the consultant of the options for repayment or appeal if this review determines that the Consultant committed an error or omission and the consensus of this review is to recommend reimbursement; and
- Notifying the consultant of any other actions taken.

Figure 6.2 shows a typical process that might be followed in assessing potential design errors and omissions.

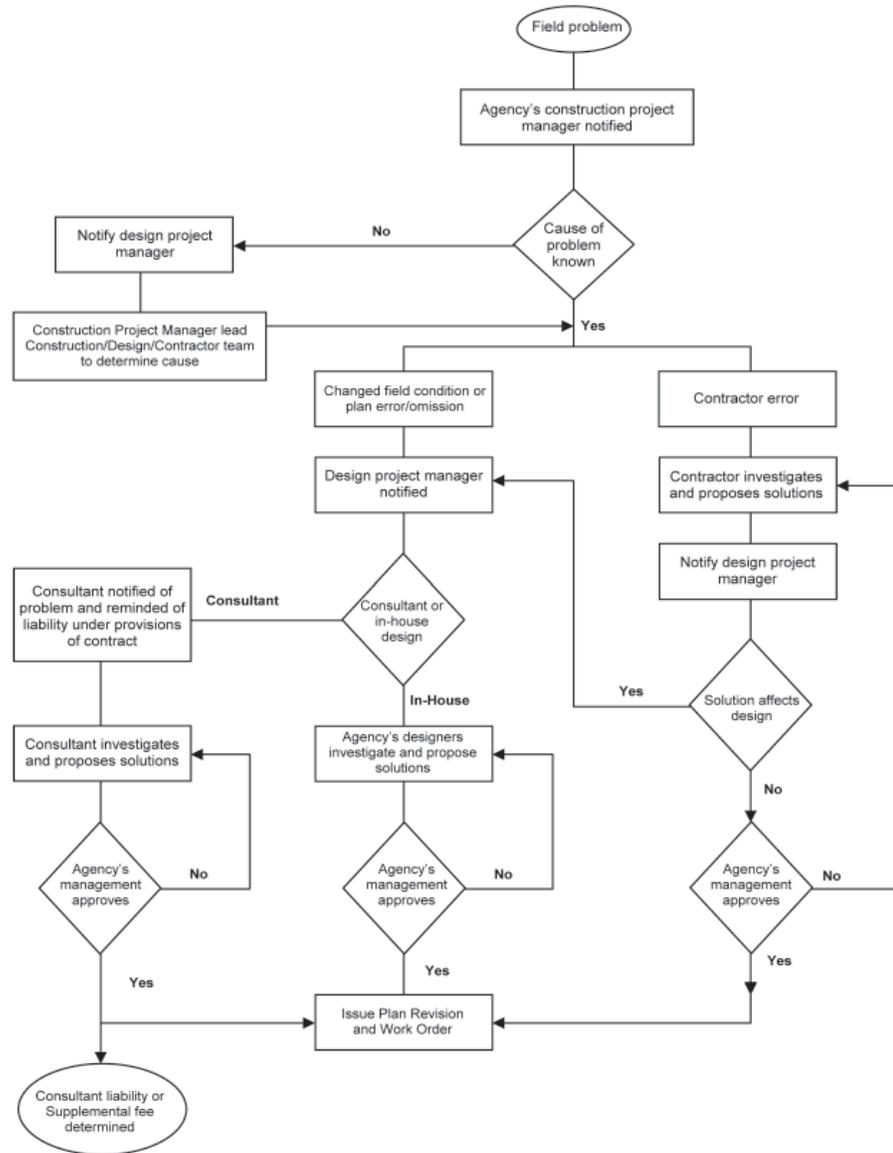


Figure 6-2. Flowchart Demonstrating Potential Design Errors and Omissions

6.9 Administrative Monitoring (Contract Terms and Conditions)

Administrative monitoring of the project includes verification that the consultant is:

- Complying with the terms and conditions of the contract,
- Processing requests for payment,
- Processing modifications to the contract, and
- Responding to requests for assistance.

The project manager or contract manager should appropriately document monitoring activities. Other documents and processes that are the responsibility of the project manager or contract manager are as follows.

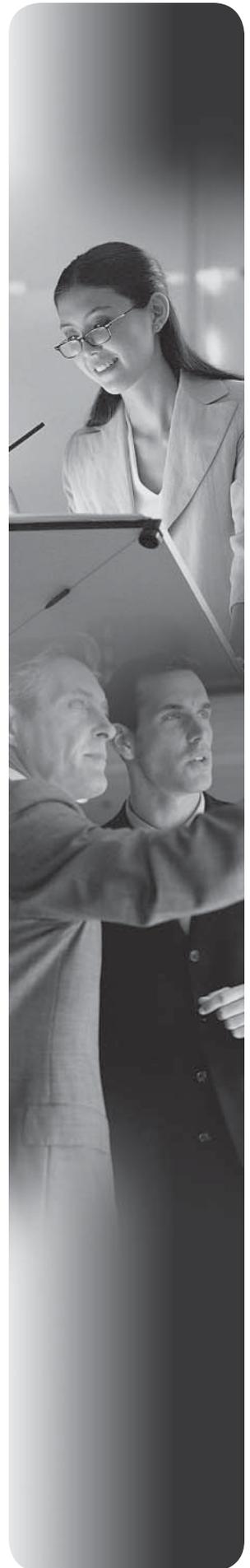
6.10 Maintaining the Contract File

The agency should maintain a contract file available for inspection by authorized representatives of the state, federal government, and the consultant for the purpose of making audits, excerpts, transcriptions, or examinations. The agency office responsible for administering the contract activity usually maintains this file. The file should include items such as:

- Original contract and amendments
- Documentation of the procurement history, including technical analysis and cost evaluation
- Authorization of funding availability
- Work orders
- Local authorizing resolutions
- Billings
- Claims
- Performance evaluation reports
- Monitoring (progress) reports
- Documents referenced in the contract (debarment certification, lobbying certification, civil rights compliance)
- Insurance certificates
- Audit reports
- Specific contract correspondence
- Contract closeout documentation

6.11 Notice to Proceed

The consultant should not begin work until issued a written authorization to proceed by the appropriate agency official. This notice established the beginning date and may include items such as:



- 
- Names of the agency's designated authorized representative(s) under whom all services of the contract will be performed
 - Design conference dates
 - Key points of the contract
 - Transmittal of the executed contract to the consultant
 - Forms and instructions for reporting progress and preparing payment requests

Many times it is necessary to provide a verbal notice to proceed especially when changed conditions may require a contract modification and the project schedule is such that a delay cannot be accepted. When a verbal notice to proceed is given, it should be followed with a written notice as soon as possible.

6.12 Stop-Work Notification

In the event that the consultant's performance is unsatisfactory, or it is deemed in the best interest of the agency to cease work on a project, a written stop-work notification should be issued to the consultant. The consultant may not proceed with work on the project unless a subsequent authorization to proceed is given. If it is determined to be in the best interest of the agency to stop work or terminate the contract, it should be done in compliance with the terms and conditions stated in the contract.

6.13 Payment Control

The consultant should invoice at the agreed frequency (usually monthly) for the work performed on the contract on a format provided by the agency. The project manager reviews and approves payment requests based on satisfactory project progress and in accordance with contract payment criteria. This includes evaluating requests for contract modifications in compliance with the contract as well as interpretation and application of any audit reports. Costs incurred prior to the authorization date or when work is not authorized (stop-work periods) is usually not eligible for reimbursement.

It is common practice that an agency will review the progress of the consultant and that there will generally be some tolerance (such as within 10 percent) with which the consultant's billing should be match the level of completion of their current stage of work. Often times, agencies find it advantageous to break out billings for consultant work by discipline. For example bridge design may be submitted as a separate portion of a voucher from the roadway design. In this manner, functional managers are more easily able to review the billing and the status of the project's completion. Many agencies require visits to the consultant's offices as part of the oversight of the management of the consultant contract. Individual bills may be checked for items such as:

- Whether the billing is consistent with the contract or other written authorizations
- Verification of the percentage of completion of the project

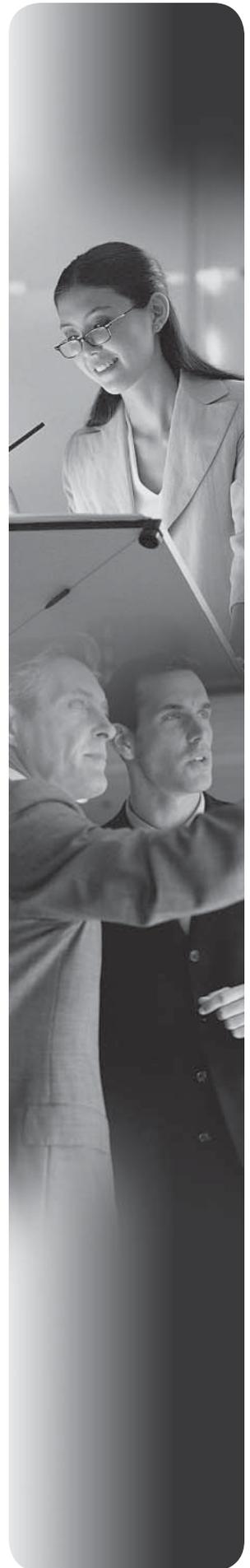
- Verification of current overhead rates
- Reviewing direct costs, net fees, salary rates, appropriate audited overhead rates are being used, and ensuring that the calculations shown on the bill is correct are among the activities undertaken in this review.

Many state transportation agencies use electronic funds transfer where local government entities are involved in paying all or a portion of the cost of consulting services. The use of electronic funds transfer is efficient and provides an effective method of payment control.

6.14 Modifications

When changed conditions or extra work occurs on a project, a contract modification is executed in accordance with the provisions of the contract. While well-detailed scopes of services will reduce the need for modifications, design is a discovery process and changes will occur. Modifications are generally used to authorize changes in the project schedule, budget, scope of services, or a combination. The agency should acknowledge the need for a modification and initiate the modification process in most cases. If the consultant requests a modification or feels that there may be deviations from the contracted scope of services, the consultant should provide written justification, support, and cost proposal for consideration and acceptance by the agency prior to any additional work being performed. Agencies should consider the following before proceeding with a contract modification:

- A modification (sometimes called a supplement or addendum) should be prepared, processed, and executed by all parties to the contract prior to authorizing changes to the scope of work. Agencies may define circumstances and procedures for advance authorization of work under appropriate situations.
- While there is no specific limit on the amount by which a contract may be modified (though the level of approval for changes may be tightly controlled), the agency should guard against unrelated or major changes. The changes should be closely related to the original scope of work. If the changed condition is for work outside the original scope, a new procurement may become necessary.
- If a time extension is required to complete the authorized work, a contract modification should be executed prior to the expiration date of the contract. Depending on the reason for the time extension, a cost adjustment may also be warranted.
- Requests from the consultant for additional compensation should be analyzed by examining the consultant's progress and justification. Justifications may include a change in the character or complexity of the work or extra work required by the agency.
- If the work authorized by the contract is increased or decreased, or if the character of the work is revised, a modification to the contract may be required. Modifications should not be used to add work of a totally different type than that authorized by the original scope of services.
- Decreases in the scope of services, the contract time, or the maximum amount payable may occur. A modification may be processed to document these changes so the consultant will not appear to have defaulted or otherwise not performed work required by the contract.





The project manager needs to take the initiative when there is a significant decrease in scope of services to ensure that recourses are not unnecessarily expended.

Modifications are generally not required to address minor changes that are compatible with the scope of services unless they result in an increase to the maximum amount payable. However, a record of minor changes should be kept. Minor changes can accumulate to the point where a significant impact could occur. Procedures for negotiating and processing contract modifications should be established by the agency. The project manager and contract manager should ensure that an actual change in the scope of services has occurred and that the modification is not a result of rework or unsatisfactory work on the part of the consultant. Modifications should be in compliance with the terms and conditions of the contract.

6.15 Subconsultants and Other Service Providers

Subconsultants may be used to perform specialized services or other tasks specifically proposed by the prime consultant. The project manager may be required to approve the subconsultant prior to the subconsultant working on the project. Many agencies limit the amount of work to be performed by subconsultants to a specified percentage (usually less than 50 percent) of the contract amount. Subconsultants are generally managed and paid by the prime consultant with little input from the agency although most agencies have provisions in their contract with the prime consultant that provide for prompt payment from the prime to the subconsultants. Additionally, while some agencies evaluate the performance of subconsultants just as they do the performance of the prime consultant, others choose not to evaluate the work of subconsultants to reinforce the ultimate accountability of the prime consultant for the entirety of the work.

6.16 Retainage

Many agencies use retainage or other forms of guarantee for various reasons. The terms and conditions of the contract should clearly define these requirements, including periodic reduction in retention and the conditions for release of retention.

6.17 Final Deliverables

The final deliverables for a project also need to be delivered from the consultant to the agency for their records. All project files, data files, e-mail, correspondence plans, and similar documentation needs to be delivered to the agency for their records. Most agencies have strict records management policies that require proper storage and retention of project records. Federally funded state and local agency contracts should contain provisions which provide access to and provide for retention of the contractor's books and records directly pertinent to the specific contract. The records retention requirement for federal grants is set forth in 49 CFR 18.42. Generally under 18.42(c) records are to be retained for a period of three years after the last expenditure report is submitted. However 18.42(a)(2)

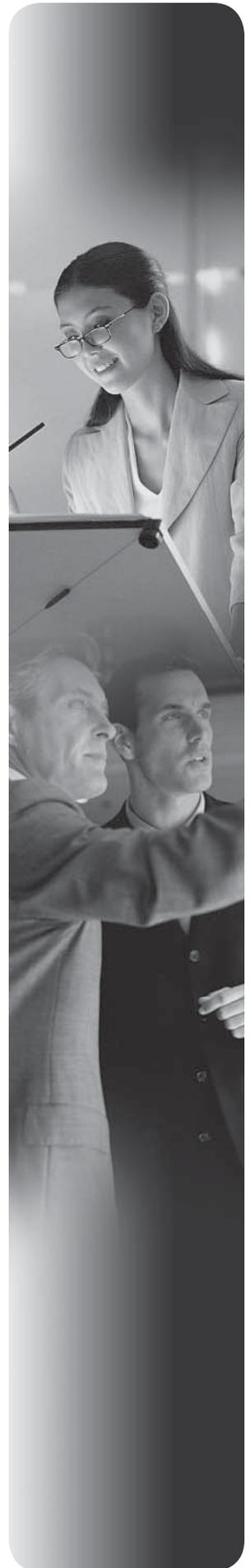
provides that records retained by contractors are governed by 18.36(i)(10) which is a contractual requirement the grantee is to impose upon the contractor.

6.18 Contract Closeout

Following acceptance of the work and final audit, the agency closes the contract file. The contract should indicate the number of years that records are required to be retained by the consultant and the agency following the date of final payment to the consultant. Closeout may involve release of retain age or guarantees.

6.19 Performance Measures

Increasingly, agencies are using publicly available performance measures to transparently operate in the public domain. These performance measures typically measure on-time, on-budget, and quality performance of the agency, its consultants and contractors in successfully delivering projects. With this ever increasing public scrutiny, the entire project team (agency and consultant) should be focused on successfully meeting the targets which have been set. Otherwise, they jeopardize the tremendous trust and responsibility placed on the agency for efficient use of the funds entrusted to it by the citizens.



APPENDIX A

Summary of Responses to the State Questionnaire

The following is a summary of the responses to the survey titled Use of Consultants—State Survey Questions undertaken on Behalf of the AASHTO Technical Committee on Preconstruction Engineering Management. The survey was conducted online over a 39-day period from January 18, 2005, to February 25, 2005.

The responses have been abbreviated and some interpretation has been made in order to produce a concise summary. The technical committee also commissioned a more complete analysis of the responses, including a comparison with the earlier survey on the same topic conducted in 1992. The report, *Results and Analysis of the 2005 AASHTO State and Consultant Surveys of Preconstruction Engineering Activities*, is available on the committee's homepage on the AASHTO web site.

The FY 2006 Appropriations Act, signed into law on November 30, 2005, required all states to comply with the Brooks Act when procuring engineering and design services using Federal-aid highway funding. As a result, "alternative" or "equivalent" Brooks Act procedures permitted prior to this amendment were no longer permissible. Some of the practices reported in the responses, especially to Question 15 concerning indirect costs, and Question 35 concerning qualification-based selection, reflect practices prior to the amendment.

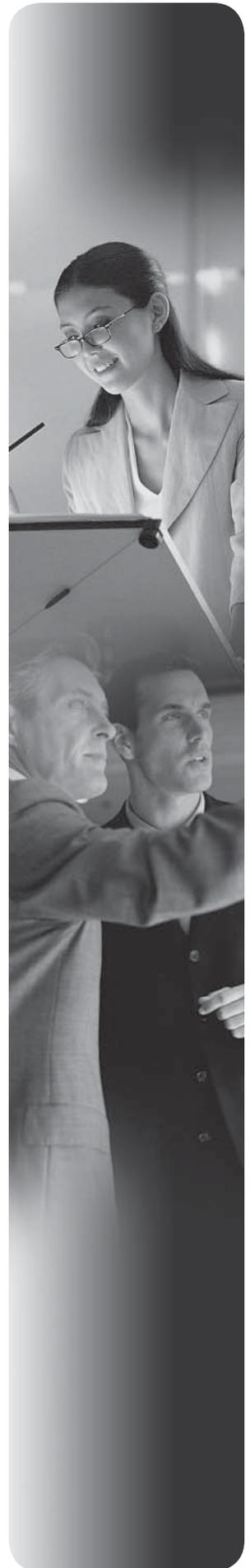
The Preconstruction Engineering Management Technical Committee wishes to thank all responding states and the staff involved for their efforts and participation.

Question 1

Identify Your Member Department.

Summary of Responses

Responses were received from 43 states (all except Alaska, Arizona, Delaware, Florida, Maine, Maryland, and Tennessee) and from two other jurisdictions (a Federal agency and a Canadian province). While the comments from the other agencies were useful, the responses were not included in the statistical summaries reported in this appendix because of differences in jurisdictional responsibilities and funding. Consequently, data on the number of respondents differ slightly from the figures reported in the graphical analysis. The number of responses to each question varied because the 43 states did not answer all the questions.





Question 2

Contact information?

Question 3

Which of the following activities do you utilize the services of consultants? Please check all that apply: Road Design; Bridge Design; ROW Engineering; ROW Acquisition; ROW Appraisals; Bridge Inspection; Traffic Engineering; Geotechnical Surveys; Materials Investigations; Program Management; Wetlands Studies; Archaeological/Biological; Landscape Design; Environmental Clearance; Corridor Studies; Photogrammetry; Feasibility Studies; Field Surveys; Project Management; Construction Engineer/Inspection; Other.

Summary of Responses

All the responding states utilize consultants for road design, traffic engineering and field surveys. More than 90 percent utilize consultants for traditional pre-contract engineering activities, and more than 60 percent for more specialized technical services. Less than half utilize consultants for project management, and only about one quarter for program management activities.

Question 4

If you selected “Other” to the preceding question, please explain in the text area below.

Summary of Responses

Seventeen states use consultants for “Other” services which can be characterized as requiring specialized expertise not likely to be found in most State Departments of Transportation.

Question 5

Why does your Department utilize consultant services? Please check all that apply: Due to Statutory Mandate; Due to Staff Limitations Imposed by Management or Legislation; To Perform Emergency Design Work; To Manage/Balance Peak Workload; To Address Controversial Projects; To Deliver Design Work on Accelerated Schedules; To Achieve Cost Savings.

Summary of Responses

Over 80 percent of the responding states utilize consulting services “To Manage/Balance Peak Workload”, “To Deliver Design Work on Accelerated Schedules” and “Due to Staff Limitations Imposed by Management or Legislation”. Approximately half use consultants

“To Perform Emergency Design Work” and “To Address Controversial Projects”. Less than 10 percent use consultants “To Achieve Cost Savings” or “Due to Statutory Mandate”.

Question 6

How many capital projects were awarded in the previous fiscal year?

Summary of Responses

Only 29 states responded to this question. All awarded more than 100 capital projects in the previous year, and nine states awarded more than 500 capital projects. These nine states were a mix of small, medium and large states, suggesting that the average or “typical” value of capital projects varies widely with jurisdiction.

Question 7

What was the value of the capital projects that were awarded in the previous fiscal year?

Summary of Responses

There were 28 responses. All awarded capital projects greater than \$250 million, and a quarter exceeded \$1 billion. The average value of a capital project in states reporting fewer than 500 capital projects to Question 6, and less than \$1 billion in program value to Question 7, was approximately \$2.5 Million, indicating that there were a large number of small capital projects in many states.

Question 8

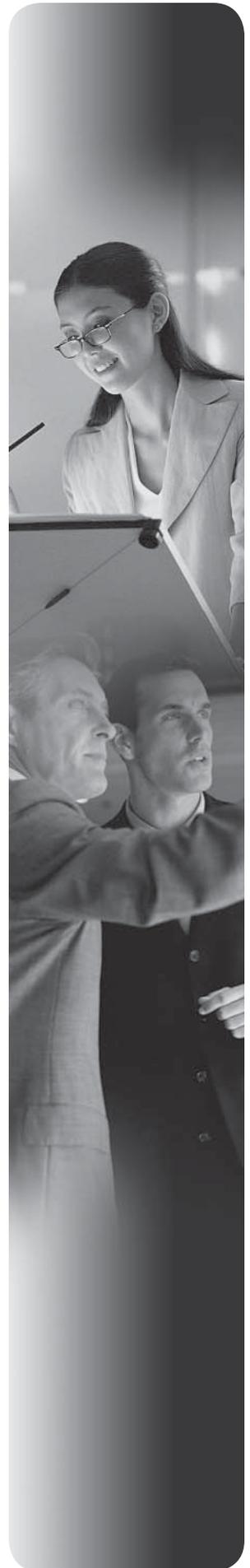
With reference to dollar value, estimate what percentage of your capital projects that were awarded in the previous fiscal year were developed by consultants?

Summary of Responses

Forty two responses were received. The use of consultants ranged from less than 10 percent of program value in three states (AR, CA and VA) to more than 90 percent in Indiana. Sixty-four percent of the respondents used consultants to design between 30 and 70 percent of their program value, and 81 percent of the respondents used consultants to design between 20 and 80 percent of their program value.

Question 9

How many engineering and design related service contracts were awarded in the previous fiscal year?





Summary of Responses

Forty-two responses were received. The number of design-related service contracts varied widely, ranging from less than 10 in five states to more than 70 in 19 states (almost half of the respondents).

Question 10

What was the value of the engineering and design services contracts that were awarded in the previous fiscal year?

Summary of Responses

There were 36 respondents to this question. The distribution of the value of engineering and design services contracts varied widely, in some cases exceeding \$250 million. Limitations in the data prevented an accurate calculation of the average cost of individual engineering and design contracts, though it was clear that many of the contracts had a value of less than \$500,000.

Question 11

If your annual construction budget increases, would you hire more consultants, more in-house staff or both?

Summary of Responses

Of the 42 responses, 57 percent would hire more consultants, and 43 percent would hire both consultants and in-house staff.

Question 12

Based on your answer to the preceding question, please explain in the text area below.

Summary of Responses

Several states cannot increase in-house staff because of legislation, frozen staffing levels, or a political climate that does not support the hiring of government workers. In such cases, any additional workload would have to be absorbed by consultants. Other states are committed to maintaining a balance of in-house and consultant designs, and to having qualified staff in an oversight role such that additional workload would be absorbed by a combination of in-house and consultant staff.

Question 13

What type of funding do you use to fund consultant preconstruction engineering services: Federal-Aid; State Funds; Both State and Federal Funds; or Other (explain below)?

Summary of Responses

Of the 43 responses, 41 states used Federal and State funds, and two (LA and AL) used only federal aid.

Question 14

What methods of payment do you use and what approximate percentage are they of the total number of engineering and design service related consultant contracts that were awarded in the previous fiscal year: Hourly Rate; Cost Plus Fixed Fee; Lump Sum; or Other (explain below)?

Summary of Responses

Most states use more than one method of payment but Cost Plus Fixed Fee is the most common, and predominates in several states. The three methods of payment identified in the question, together with minor variations, accounted for the overwhelming majority of contracts for engineering and design service-related consultant contracts.

Question 15

Does your department impose limits or guidelines on overhead costs? If yes, please identify the limitations and describe the enabling equivalent or alternative procurement provisions or procedures.

Summary of Responses

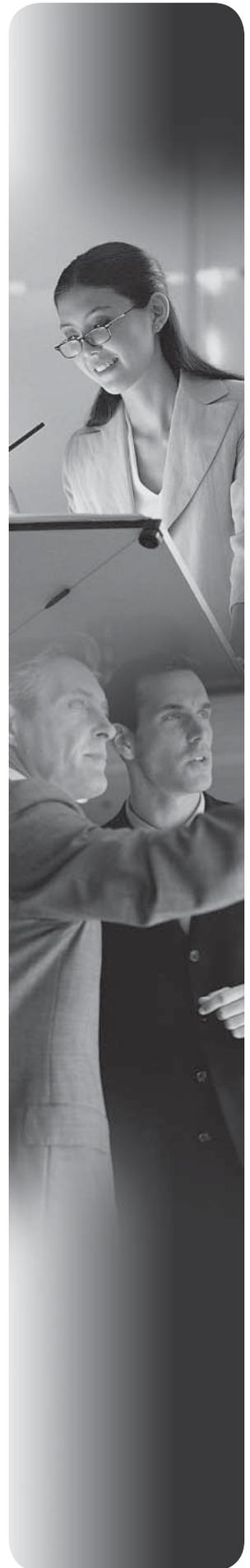
There were 43 responses: 58 percent impose limits or guidelines on overhead costs. Where overhead rates are capped, the most common limit is in the range of 150 to 160 percent.

Question 16

Does your department impose limits or guidelines on fixed fee? If yes, please identify the limitations and describe the enabling equivalent or alternative procurement provisions or procedures.

Summary of Responses

There were 41 responses: 68 percent impose limits or guidelines on fixed fee. Practices vary widely and rates often vary with factors such as contract duration, schedule, dollar





value, complexity, and risk. Where the fixed fee is capped, most are in the range of 10 to 15 percent of labor and overhead costs.

Question 17

Does your department establish caps on hourly rates for consultant personnel? If yes, please identify the limitations and describe the enabling equivalent or alternative procurement provisions or procedures.

Summary of Responses

There were 43 responses: 42 percent impose limits on hourly rates for consultant personnel. Practices vary widely, and are often based on local market conditions. Where the hourly rate is capped, most are in the range of \$45 to \$60 per hour.

Question 18

Does your department establish salary limitations and/or limitations on work categories? If yes, please explain.

Summary of Responses

There were 43 responses: one third of the states impose limits on hourly rates for consultant personnel. Although relatively few states establish salary limitations, the method of application is more widely varied than for hourly caps.

Question 19

Does your department allow the inclusion of premium overtime (direct payroll vs. direct straight time)? If necessary, explain.

Summary of Responses

There were 43 responses: 63 percent allow inclusion of premium overtime. While most states allow inclusion of premium overtime, it is usually only with prior approval. The most common reason for payment of premium overtime is when the state accelerates the completion of the contract.

Question 20

Does your department allow facilities capital cost of money? If necessary, explain.

Summary of Responses

There were 40 responses: 65 percent allow facilities capital cost of money. Few com-

ments were received, though two states noted that the fixed fee is reduced if payment is made for facilities capital cost of money.

Question 21

Are all of your consultant fees negotiated? If yes, please identify factors or criteria utilized to establish fee. If No, please describe the enabling equivalent or alternative procurement provisions or procedures.

Summary of Responses

There were 42 responses: 37 states negotiate all consultant fees, 5 (IN, LA, NH, PA, and VT) do not. The vast majority of consultant fees are negotiated based on historical data and cost estimates prepared by the state and the consultant. Estimates may include factors such as type of project, size of project, schedule, complexity, and risk.

Question 22

Does your department have a contract negotiation training program? If necessary, explain.

Summary of Responses

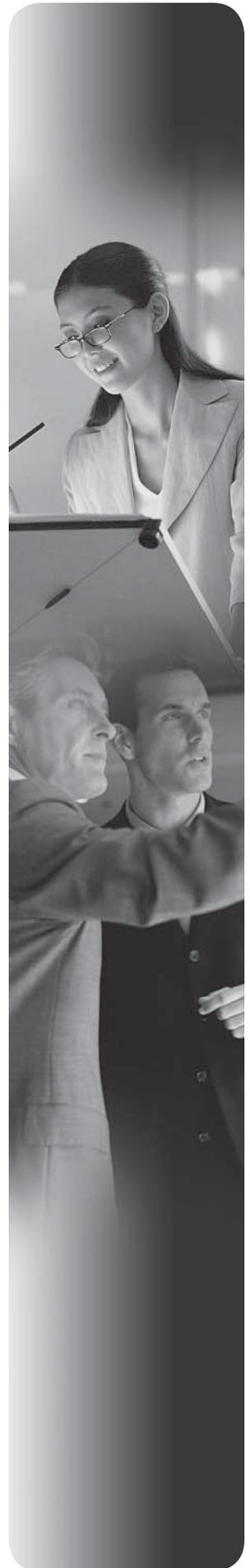
There were 43 responses: only one quarter have a contract negotiation training program, though several have recognized the need for such a program. Some states provide formal courses and others utilize on-the-job training. Only WI commented that the state must be represented in negotiations by an employee who has completed department-sponsored negotiation training.

Question 23

Do you plan to utilize any form of “privatization” in developing, constructing or operating your transportation infrastructure? If yes, explain.

Summary of Responses

There were 41 responses: 32 percent plan to utilize a form of “privatization” in developing, constructing or operating their transportation infrastructure. Although about one third responded affirmatively, the examples given indicate the question may have been misunderstood. There appeared to be confusion between privatization (where private funding is provided) and outsourcing (where state funds are used to hire private contractors to do work previously done by state employees).





Question 24

Does your department have an errors and omission policy? If yes, please explain key features or provide a link to electronic access.

Summary of Responses

There were 42 responses: 71 percent have an errors and omissions policy. Other states are in the process of developing a policy. A number of responses commented that the state will advise the design consultant as soon as it becomes aware of an error or omission. The design consultant has an opportunity to correct the error, but may be liable for any increase in construction costs. Other respondents noted that the state requires errors and omissions insurance, or that contracts contain an errors and omissions clause, but the state does not otherwise have an errors and omissions policy.

Question 25

Does your Department have errors and omissions procedures developed to provide guidance for addressing individual 1) Construction Projects, 2) Engineering and Design-Related Services Contracts? If yes to both categories, please explain key features or provide a link to electronic access.

Summary of Responses

- 1. Construction Projects:** There were 39 responses, 51 percent have errors and omissions procedures developed to provide guidance for addressing individual construction projects.
- 2. Engineering and Design Related Services Contracts:** There were 41 responses, 71 percent have errors and omissions procedures developed to provide guidance for addressing individual engineering and design-related services contracts.

Few of the comments provided more detail or reference documents.

Question 26

Question 26 was a repeat of Question 25.

Question 27

Please describe your experience, if any, with reimbursement from consultants who have committed errors and/or omissions.

Summary of Responses

Most states have direct experience with claims against consultants who have committed errors and/or omissions. The experience has been quite varied, as has the nature of the claims. In some cases, consultants have been required to correct the design error, or provide work of equal value. Several states have been successful in recovering the costs of correcting design errors and the associated construction costs. Some consultants have recognized errors, and willingly negotiated reimbursement; other cases have proceeded to litigation.

Question 28

Does your department require professional liability coverage to be carried by the consultants you contract with? If yes, what is the Standard Level of Coverage?

Summary of Responses

There were 38 responses: 81 percent require consultants to carry professional liability coverage. Almost 60 percent of the states requiring professional liability coverage specify a standard level of coverage of more than \$1 million.

Question 29

Who in your department is responsible for the following areas: Process of Procuring of Consultant Services (advertising, document preparation, processing, etc.); Consultant Selection; Contract Negotiation; In-House Staff to Manage Consultants; Other (please identify)?

Summary of Responses

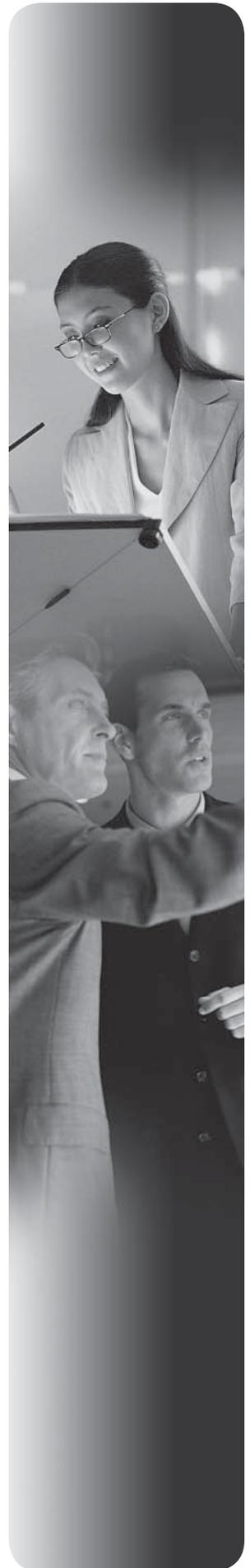
The majority of states use permanently-assigned centralized staff in the initial stages of the procurement process. This staff is often also involved in contract negotiation. District staff play a much larger role in selection and management than in procurement and contract negotiation.

Question 30

Do you utilize the same selection process for all types of engineering and design related services? If no, please describe.

Summary of Responses

There were 42 responses: 81 percent utilize the same selection process for all types of engineering and design related services. Most of the exceptions related to small contracts of low value.





Question 31

Do you have plans or strategies underway for expediting your current consultant selection process for engineering and design related services contracts? If yes, describe.

Summary of Responses

There were 42 responses: 36 percent have plans or strategies underway for expediting the current consultant selection process. A number of the comments indicated that a task force had been created to recommend process improvements.

Question 32

Does your department utilize Indefinite Delivery/Indefinite Quantity (also referred to as on-call contracts) contracts for engineering and design related services on a: Statewide; District-Wide; Multi-Agency; Regional Basis? Explain, if necessary.

Summary of Responses

Most states have IDIQ contracts at the state or district level, but not on a regional or multi-agency basis. A number of the respondents indicated that IDIQ contracts were limited by value, or to certain types of work, but few details were given.

Question 33

If your department utilizes Indefinite Delivery/Indefinite Quantity contracts (also referred to as on-call contracts) for engineering and design related services, are techniques applied to insure competition and select firms that are prequalified or to select firms to compete for future work on IDIQ contracts? If yes, please describe.

Summary of Responses

Most states have some form of prequalification process. Several award IDIQ contracts on a rotation basis, while some require an abbreviated project-specific submission. In some cases, the same process is used as for all other engineering and design-services contracts.

Question 34

If your department utilizes Indefinite Delivery/Indefinite Quantity contracts (also referred to as on-call contracts) for engineering and design related services, are policies, procedures and techniques applied to track costs and verify the work performed for each separate project or task order that may be initialized under an overall IDIQ contract? If yes, please describe.

Summary of Responses

All but three respondents set up a task or work order for each assignment and track costs charged against the task or work order.

Question 35

Does your department utilize a qualifications based consultant selection process without consideration for cost? If no, explain.

Summary of Responses

All but two (MI, VT) of the 42 responding states utilize a qualifications based consultant selection process without consideration for cost. VT commented that cost must be considered by state statute.

Question 36

During the procurement of engineering and design related services, when does your department require proof of or the submittal of a completed audit? If yes, when? Please check all that apply. (Prequalification; Submittal of Proposal; Ranking of Proposals; Prior to Fee Negotiation; Prior to Approval/Signing; Not Required).

Summary of Responses

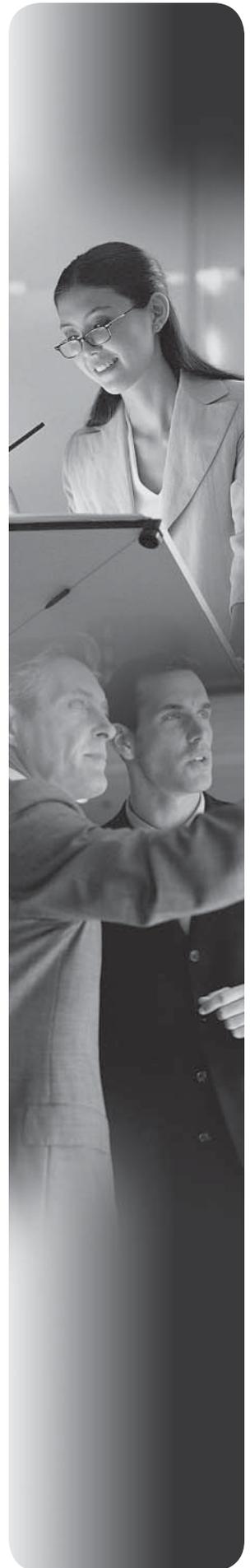
Approximately 80 percent of the states require proof or submittal of an audit during the procurement process, though specific requirements vary widely from state to state. The time of proof of a completed audit is roughly evenly divided between three steps in the procurement process: prequalification or submission of proposal, prior to fee negotiation, and prior to approval or signing of the contract. Where submission of a completed audit is required, most states require it prior to fee negotiation or prior to approval or signing of the contract.

Question 37

Does your department pre-qualify consulting firms? If yes, describe your process.

Summary of Responses

Almost two thirds of the states pre-qualify consulting firms. Most have a process through which the consultant makes an application to supply services for specific categories of work and the state reviews the qualifications and experience of the consultant in those categories. The time period for which an approval is valid varies from state to state.





Question 38

Does your department: 1) Allow consulting firms to submit a Statement of Qualifications electronically? 2) If yes, is it mandatory? If you answer no to these categories, please explain.

Summary of Responses

1) There were 41 responses. Of the 14 states (34 percent) that allow consulting firms to submit a Statement of Qualifications electronically, electronic submission of a Statement of Qualifications is mandatory in five states (CO, IA, NY, PA, RI). A number of states commented that they expect to be able to receive electronic submissions in the future.

Question 39

If it is not mandatory to submit a Statement of Qualifications electronically, what percentage do you receive electronically?

Summary of Responses

Only a small percentage of Statements of Qualifications are received electronically. Some states indicated that electronic submissions are not allowed by policy, others do not have the technical capability to receive electronic submissions.

Question 40

Is workload a consideration in consultant selection? If yes, explain.

Summary of Responses

Only one state (MO) responded that it does not consider workload in consultant selection. The extent to which workload is considered in consultant selection is subject to wide variation. Some states include it in the scoring for consultant selection, but many do not. Several states commented that the consultant must demonstrate resources are available. MO stated that a consultant confirms its availability when it submits a letter of interest, a practice that is similar to many other states.

Question 41

Describe how Disadvantaged Business Enterprise (DBE) requirements are utilized as evaluation criteria to either pre-qualify a prime consultant or to rank competing proposals prior to selection.

Summary of Responses

Most, but not all, states have DBE requirements in engineering and design-services contracts. Typically, the DBE requirement is stated in the contract requirements, and proposals must meet the minimum requirements to be considered. Practices vary widely however: some states give priority to DBE content in selecting proposals, others consider it, and, for some others, DBE content is not part of the selection process. KS, NE and AL commented that DBE goals are met on construction contracts, and therefore are not part of the consultant selection process.

Question 42

Describe the techniques or approaches your Department uses to encourage and achieve DBE participation across the entire program and on individual contracts.

Summary of Responses

Most states encourage DBE participation, some have outreach programs, many have goals, and some have units in the state government that monitor compliance. Some goals are firm, requiring a minimum DBE participation (typically 12 to 20 percent) in specific contracts, other goals are softer and “encourage” DBE participation or “good faith efforts”.

Question 43

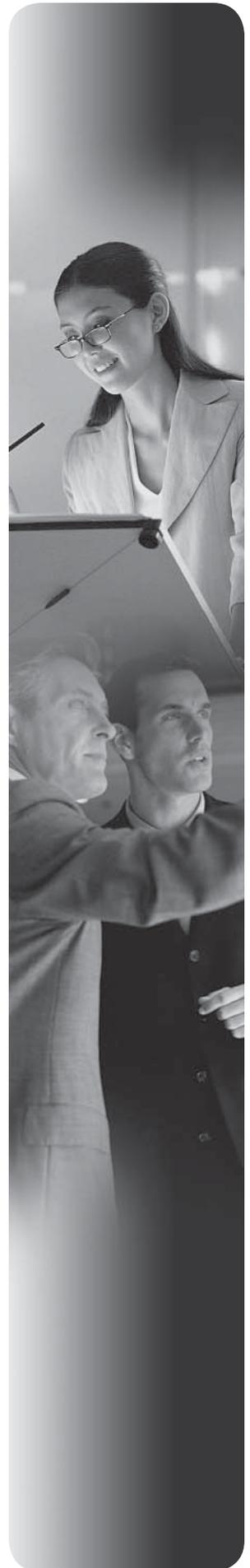
Please describe any methods your department utilizes to expedite the Notice to Proceed issued to consultants.

Summary of Responses

Several states commented that they do not have an expedited process, and the consultant cannot proceed until the contract has been executed. Some states will advise the consultant verbally or by e-mail when the contract has been executed so that work can begin prior to receiving the executed agreement. SC and IN described processes to expedite specific tasks by authorizing limited funding while the contract is being negotiated and executed. IL has a similar process to allow work to begin after negotiations are completed and prior to contract execution. Some states have more flexibility to deal with contract changes than new agreements.

Question 44

Does your department retain any portion of payments until consultant contracts are successfully completed? If yes, describe below and explain if interest is paid to the consultants on the retained amounts.





Summary of Responses

About half the states retain a portion of payments until consultant contracts are successfully completed. The amount retained is typically in the range of 2 to 10 percent of contract value, though some states use a more complex formula. None of the states pays interest on the amount retained. The trend appears to be that fewer states are retaining a portion of payments.

Question 45

Do your consultants utilize electronic funds transfer methods for billing your department? If yes, explain.

Summary of Responses

Consultants utilize electronic funds transfer methods for billing the department in slightly less than half the states. The question may have been ambiguous because it asked about the consultant billing by electronic funds transfer methods and not the state making payments by the electronic transfer of funds. Some states commented about electronic payments. The facility is available in several states, and is encouraged by some.

Question 46

Does your department require consultants to use specific software for design and plan development? If yes, explain.

Summary of Responses

Over 80 percent of the states require consultants to use specific software for design and plan development, though some specify the file format for deliverables rather than specific software. MicroStation and Geopak are the most commonly specified software, especially in small and medium-sized states.

Question 47

Does your department monitor your consultant's operations at their place of business periodically?

Summary of Responses

About half the states monitor consultants' operations at their place of business. Relatively few comments were received, and the majority of visits appear to be scheduled meetings or audits.

Question 48

If you answered yes to the above, are visits announced or unannounced?

Summary of Responses

Of the 22 states (out of 42 respondents) that monitor consultants' operations at their place of business, 14 announce visits to consultants, 3 states conduct unannounced visits, and 5 states conduct both types of visits.

Question 49

What methods does your department utilize to monitor consultant progress between major project development milestones: 1) Regular Meetings; 2) Written Progress Reports; 3) Project Management Software or 4) Other (please explain)?

Summary of Responses

More than 80 percent of the states monitor consultant progress through regular meetings and written progress reports. Almost one third utilize project management software.

Question 50

Does your department utilize a formal project development review process that correlates with the percentage or amount of progressive payment that is authorized? If no, describe the method.

Summary of Responses

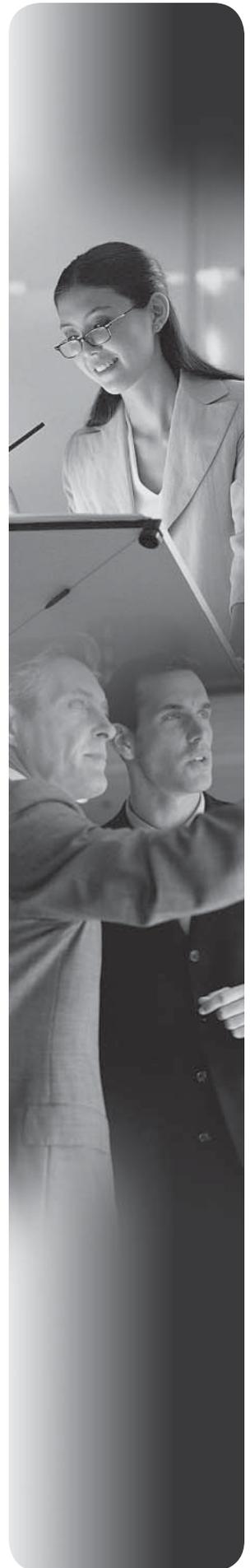
Three quarters of the states responded that they utilize a formal project development review process that correlates progress and payments.

Question 51

Does your department have a formal consultant performance evaluation process? If yes, describe.

Summary of Responses

All but four states have a formal consultant performance evaluation process. Most states complete the evaluation at the completion of the project, and have standard forms for the purpose. Several states conduct interim evaluations, either at regular intervals such as six months or one year, or at project milestones.





Question 52

Does your department utilize past performance information when evaluating and selecting consultants for new projects? If yes, describe method.

Summary of Responses

All except four states utilize past performance information when evaluating and selecting consultant's for new projects. There was little information on how past performance is used in the selection process. Some responses indicated it is a "major factor," others said it is a "consideration" and others stated that ratings are "available" to the selection panel. Only NJ and NY stated the weighting of past performance in selection for new work (20 percent of the points available in both cases).

Question 53

Does your Department provide consultants with electronic access to the following information: Design Standards; Design Details; Special Provisions; Typical Sections; Bid Tabulations; Administrative Orders; Control Directives; Standard Specifications?

Summary of Responses

A large majority of the states provide electronic access to technical standards. A smaller number, though still a majority, provide electronic access to administrative documents and bid tabulations.

Question 54

Are training costs included in your cost comparisons of consultants vs. in-house resources? If yes, describe.

Summary of Responses

Only two states include training costs when comparing in-house and consultant costs. A number of states commented that they have not made cost comparisons. It was noted that comparing the cost of work done in-house with the cost of having work done by consultants is difficult, and training costs are just one factor that needs to be considered.

Question 55

Does your department have training programs for consultants? If yes, at what levels?

Summary of Responses

About 60 percent of the states responding to the survey have training programs for

consultants. Training ranges from administrative procedures to highly specialized technical courses. A few states commented that consultants may attend training sessions given to in-house staff when space is available.

Question 56

Does your department have training programs for in-house staff that provide oversight/management of consultants? If yes, describe.

Summary of Responses

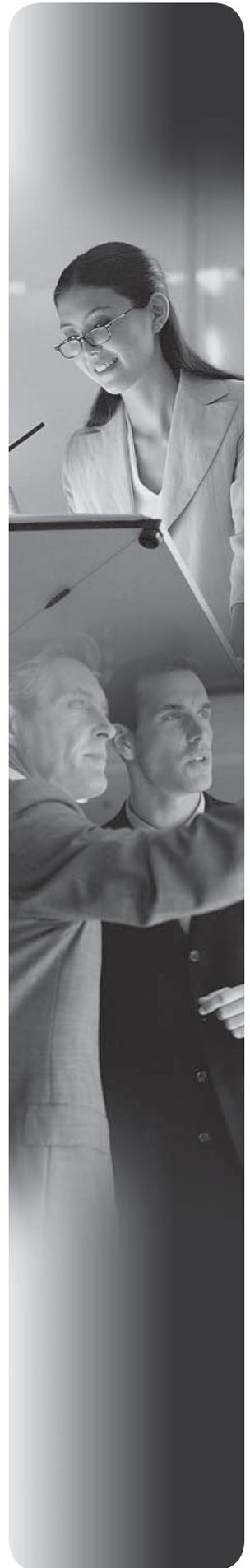
Slightly more than half the states have a training program for staff with oversight responsibilities, and a number of states have courses under development. A number of respondents commented on the need for more training in this area.

Question 57

Does your department have an ongoing liaison arrangement (meetings, breakfasts, other scheduled contacts) with the consultant community organizations? If yes, describe.

Summary of Responses

All but three states have an active liaison program with consulting groups in the state. Some states meet with chapters of national organizations, others have established special committees. Most states hold regularly scheduled meetings, often supplemented by additional meetings to deal with specific issues. Meetings typically include senior management personnel, and may include elected officials and political staff. Many states hold partnering sessions with the consulting community.



APPENDIX B

Summary of Responses to the Consultant Questionnaire

The following is a summary of the responses to the survey titled *AASHTO Consultant Survey*. The survey was conducted on-line over an 87-day period from March 7, 2005, to June 1, 2005, for the purpose of collecting information for the update of this guide.

The AASHTO Technical Committee on Preconstruction Engineering Management coordinated with the American Council of Engineering Companies (ACEC) to identify consulting firms that represent a cross section of the membership. An attempt was also made to focus on those firms that provide professional services in the development of transportation improvements or programs and collect input from a representative sample of the various geographic regions of the country. Many firms have multiple offices in several states. For this survey, responses were sought from individual offices in order to provide more meaningful information on a state-by-state basis.

The responses have been abbreviated and some interpretation has been made in order to produce a concise summary. The committee also commissioned a more complete analysis of the responses, including a comparison with the earlier survey on the same topic conducted in 1992. The report *Results and Analysis of the 2005 AASHTO State and Consultant Surveys of Preconstruction Engineering Activities* is available on the committee's homepage on the AASHTO web site.

As in the case of the State Survey reported in Appendix A, the Consultant Survey was conducted prior to the FY 2006 Appropriations Act and the responses reflect practices prior to the passing of this amendment.

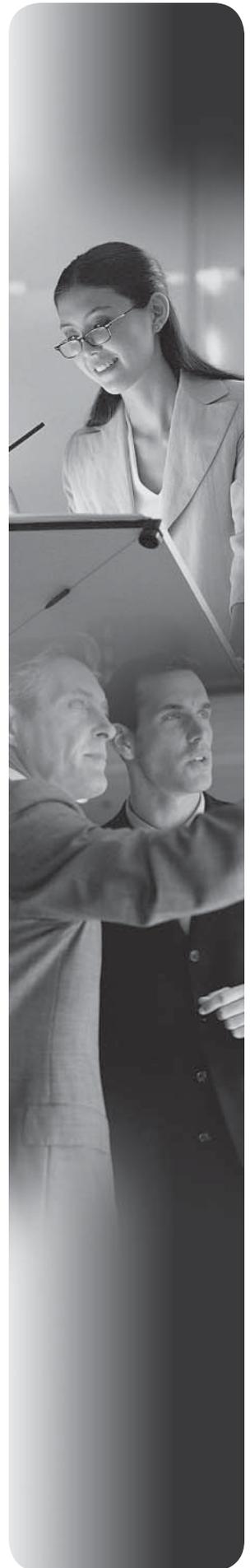
The Preconstruction Engineering Management Technical Committee wishes to thank the consultants who participated in the survey for their efforts.

Question 1

Contact information.

Summary of Responses

There were 169 responses received from senior executives of consulting firms. After accounting for responses from different locations of the same company, there were approximately 160 independent responses.





Question 2

Identify your state.

Summary of Responses

Responses were received from consultants located in 41 of the 50 states, together with one response from the District of Columbia. The responses were geographically diverse, and reasonably representative of the population distribution. The larger states were somewhat under-represented, particularly on the eastern seaboard, and the central states were slightly over-represented.

Question 3

Size of firm: number of full-time employees at your office/location?

Summary of Responses

Forty seven percent of the respondents had fewer than 50 employees, 41 percent had between 50 and 300 employees, and 12 percent had more than 300 employees. (It should be noted that the question asked for the number of employees at a specific location, and not the overall size of the firm.)

Question 4

What is the annual value of fees for services associated with transportation projects at your office/location?

Summary of Responses

Eighteen percent of the respondents reported annual fees of less than \$1 million, 59 percent had annual fees between \$1 million and \$10 million, while 23 percent had annual fees exceeding \$10 million. Analysis of the responses to the first four questions indicated that, while the major firms were well represented, the majority of the responses were from small and medium-sized firms.

Question 5

Does your office more often work as a prime consultant for a State Department of Transportation (DOT) or as a subconsultant to another consulting firm?

Summary of Responses

Eighty percent of the respondents more often work as a prime consultant.

Question 6

What percentage of your annual workload (person hours) is devoted to providing services to state DOTs?

Summary of Responses

State DOTs account for less than 50 percent of the workload of more than 70 percent of the respondents. The number of respondents providing more than 70 percent of workload to DOTs was relatively small, indicating that most firms offering services to DOTs have a broad client base.

Question 7

What percentage of your work with state DOTs is for: Preconstruction Engineering—Planning; Preconstruction Engineering—Surveying; Preconstruction Engineering—Designing; Construction Engineering; Design-Build; Project Management; Program Management; Other? (Note: total must add up to 100 percent.)

Summary of Responses

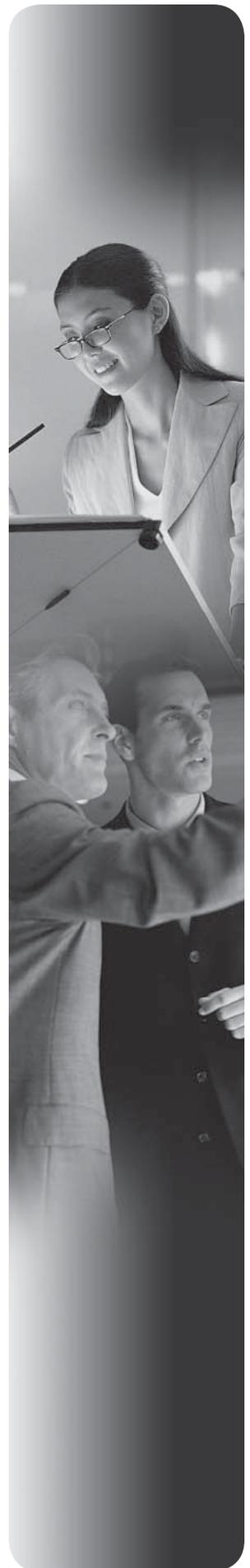
More than 50 percent of the preconstruction and construction engineering work awarded by State DOTs is for design services, but only two percent for design-build, and one percent for program management. Consequently, the vast majority of consultants providing preconstruction and construction services are engaged in design. Designing typically accounts for the majority of work for these consultants, though most also provide planning and construction engineering services. Less than one quarter of respondents are engaged in design-build projects, though, for those that are, it typically accounts for more than 10 percent of their business with DOTs. Similarly, there are only a small number of firms (about 10 percent) providing program management services, and it averages almost 10 percent of their business with DOTs.

Question 8

If you selected “Other” in the preceding question, please explain in the text area below.

Summary of Responses

“Other” (usually specialized) services account for 5 percent of the value of work awarded to consultants by DOTs. Approximately 20 percent of the respondents provide these services which account for a very small amount to 100 percent of their business with DOTs. Several firms are engaged in providing traditional specialist engineering services such as geotechnical, materials and structural engineering; a much smaller number are engaged in other specialized services such as environmental assessments, safety or cultural studies.





Question 9

Many ideas for improving the consultant selection process have been suggested. How would you value each of these practices in improving the consultant selection process? Distribute 100 points to the following practices to demonstrate which you believe is the process, practice, or criteria that you would most strongly support as being important in improving the process of selection: Use of Qualifications-Based Selection; Using a well informed Consultant Selection Committee; Persons making selection should be well informed about project details; "Short listing," i.e., limiting the development of RFPs to 3–5 consultants; Providing the consultant with greater detail regarding the scope of the project; other.

Summary of Responses

All the processes or criteria suggested in Question 9 received support from the majority of respondents. Qualifications-Based Selection received the strongest support by a wide margin, though the respondents also attached importance to the selection committee being well informed and knowledgeable about project details. As one respondent noted, the processes are not mutually exclusive, and the weighting of the factors may change with the size and complexity of the project.

Question 10

If you selected "Other" in the preceding question, please explain in the text area below.

Summary of Responses

Fewer than 10 percent of the respondents selected "Other," and there was no common thread to the ideas suggested. Three respondents noted that workload should be a consideration.

Question 11

Many ideas for improving procedures for contracting with consultants have been suggested. Typically, following the initial selection of a consultant, agreement is reached regarding the contract details. How would you value each of these practices in improving the contracting process? Distribute 100 points to the following practices to demonstrate which you believe is the process, practice, or criteria that you would most strongly support as being important in improving the process of contracting: Reducing the amount of auditor, legal, and accountant involvement; Delegating more authority to the contract unit within the DOT; Developing standardized documents/process; Accepting other audits; Having negotiators who are familiar with scope of the project and have the authority to negotiate; Other.

Summary of Responses

All the procedures identified in Question 11 received support from the majority of the respondents. Having negotiators who are familiar with the project, and who have the authority to negotiate received by far the most support for improving the contracting process. “Reducing the amount of auditor, legal, and accountant involvement,” delegating more authority to the contract unit within the DOT,” and “developing standardized documents/process” also received significant support.

Question 12

If you selected “Other” in the preceding question, please explain in the text area below.

Summary of Responses

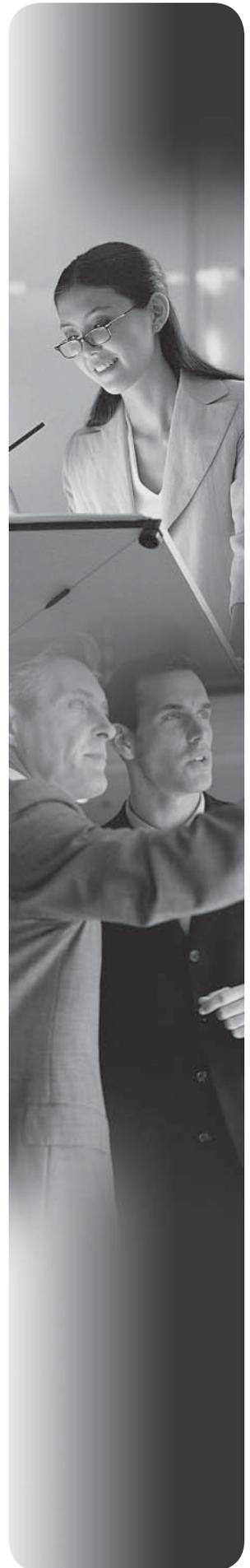
Fourteen percent of the respondents selected “Other,” representing about five percent of the total points. A number of respondents noted the importance of negotiators having recent “hands-on” design experience. Other respondents commented on the importance of having a clear understanding of the scope of the project, and what constitutes a change in scope. A number suggested empowerment of DOT personnel. Ideas for streamlining the contracting process included having an agreed schedule for the negotiating process, making one individual within the DOT responsible for completing the execution of every contract (instead of having many people involved), and using standard clauses that have been agreed with industry organizations for items such as insurance, liability, indemnity, dispute resolution, and standard of care.

Question 13

A number of suggestions have been received for improving the transportation agency procedures for managing consultants. How would you value each of these practices in improving the management of projects? Distribute 100 points to the following practices to identify the action, process, or practice that you would most strongly support as being important in improving the management of consultants: Providing specific training and education for DOT staff (engineers) on how to manage and administer contracts; Minimizing the use of consultant management firms to manage consultants and, instead, using experienced in-house staff; Delegating more authority to project manager; Decentralizing and letting project managers manage; Improving and having more timely communications; Giving consultants access to standards, policies, and procedures; Other.

Summary of Responses

All the suggestions in Question 13 were supported, to some degree, by the majority of the respondents. Training in project management for DOT engineers received the most support, but the responses were much more evenly divided between the suggestions than for Questions 9 and 11. Delegating more authority to the project manager, improving com-





munications, minimizing the use of consultant management firms, and decentralizing and letting project managers manage, all received similar, strong levels of support.

Question 14

If you selected “Other” in the preceding question, please explain in the text area below.

Summary of Responses

Seven percent of the respondents selected “Other,” representing about two percent of the total points. A number of comments emphasized the importance of balance between design oversight and consultant accountability. There was also criticism of DOT project managers micro-managing projects and imposing personal preferences.

Question 15

In some states, each time a consultant applies to be considered for selection, they must prepare detailed documentation of their qualifications for performing the engineering work related to the project scope. The state DOT then considers the qualifications and, if satisfactory, that consultant’s proposal (which is also prepared for each project on which the consultant indicates an interest) is considered in the selection process. In other states, consultants periodically (perhaps annually) document their qualifications to do various scopes of work. This “pre-qualification” process eliminates the need to prepare qualification details each time the consultant seeks a contract. Should state DOTs have a process to pre-qualify consultants?

Additional comments?

Summary of Responses

There was very strong support (more than 95 percent of the respondents) in favor of prequalification of consultants. However, a number of respondents suggested that the process could be further improved by consultants and agencies working together to develop a standard format that would be utilized by all agencies. There were also several comments concerning the importance of consultants having an opportunity to update qualification statements periodically. There were also a few negative comments, mostly related to becoming prequalified for the first time, or expanding into new areas, especially for small firms.

Question 16

Some states may choose to minimize the number of firms from which detailed proposals are solicited through a process called short-listing. By identifying only 3–5 firms from which additional information is requested, the number of consultants preparing the information from which to make a final selection is significantly reduced.

What factors or requirements should be considered in developing the “short list”? Using a scale of 1 to 5 where 1= Very Important and 5 = Not important, indicate the importance of the following factors: Existing workload; Location of office; Past performance; Level of expertise; Uniformity of work among consultant community; Providing opportunities to new consultants; Other (explain in additional comments).

Summary of Responses

Past performance and level of expertise were considered to be the most important factors by a wide margin. The other factors were considered relatively unimportant.

The “other” suggestions varied widely and some of the comments reflected local experiences. The most common thread was that DOTs should evaluate the project manager and team that the consultant proposes to use on the specific project, not just the reputation of the firm.

Question 17

In an effort to further reduce the work of preparing proposals for which a consultant may ultimately not be selected, some states make their selection from among short-listed consultants on the basis of an interview in which the consultant’s approach to the work, staffing or management plan, experience with similar projects, etc., are presented. Only the top-ranked consultant is asked to prepare a proposal. If agreement cannot be reached with the top-ranked consultant regarding the proposal, the next consultant would be asked to prepare a proposal. Would you favor having a selection process prior to the preparation of a proposal?

Additional comments?

Summary of Responses

There was a reasonably strong level of support (73 percent in favor) of having a selection process prior to the preparation of a proposal, but many of the comments contained caveats. A number of responses pointed out that most of the work in preparing a proposal has to be completed prior to the interview. Others commented about the expense of the interview process, the risk of selecting the best presentation rather than the best design solution, and the perception that the interview process is less transparent than the evaluation of proposals. A small number of responses expressed enthusiasm for the process proposal suggested in Question 17.

Question 18

Please rank the following factors that should be considered in making a final selection. Select the most important in the first box, the next most important in the second box, etc. The items are: Cost of the Engineering Services Contract; Existing Workload; Experience; Knowledge of Project; Staff Qualifications; Location of Office; Other.





Summary of Responses

The responses show that consultants are of the strong opinion that experience, knowledge of the project and staff qualifications are the most important factors in making a final selection. The other factors included in the ranking were unimportant by comparison. The findings confirm the responses to Question 16 where past performance and level of expertise were considered to be the most important factors by a wide margin. Cost was considered to be the least important factor, and a number of responses commented that cost should not be part of the selection process.

Question 19

If you selected "Other" in the preceding question, please explain in the text area below.

Summary of Responses

As with the responses to Question 16, the comments varied widely, though a number noted the importance of the project manager, and the qualifications and availability of staff assigned to the specific project.

Question 20

Should a State DOT selection committee be: Permanent Committee; Committee with Rotating Members; A combination of the above?

Summary of Responses

Nine percent preferred a permanent committee, 24 percent a committee with rotating members, and 67 percent a combination of the two committee structures.

Question 21

What suggestions do you have for improving the interview process?

Summary of Responses

A large number of comments were received. Those respondents desiring a standardized format in which all consultants are asked the same questions, and those wanting more dialogue, were fairly evenly divided. A number suggested that the questions be given to the consultant in advance, and one respondent suggested that the rating form (including weights) should also be provided. There were several comments in favor of having the technical staff assigned to the project by the consultant being interviewed by the DOT technical staff involved in the project, and excluding presentations by marketing staff to DOT managers. Small firms perceive that they are at a disadvantage because of the market-

ing resources of larger firms, and recommended that the focus of the presentation should be on the proposed approach and solutions rather than qualifications.

Question 22

How frequently should state DOTs hold project status/plan review meetings with their consultants on small projects (<\$200,000 design fee): Weekly; Monthly; At Key Completion Points (e.g., 30–60–90); Other?

If you selected “Other,” please specify.

Summary of Responses

Seventy percent preferred review meetings at key completion points, 17 percent preferred monthly meetings, four percent preferred weekly meetings, and nine percent preferred meetings at some other frequency (two weeks was the most frequently suggested alternative).

Several comments suggested there should be flexibility depending upon such factors as the size and complexity of the project, or the experience of the project manager and the consultant working together on previous contracts. Other suggestions were that advantage of improvements in electronic communications should be taken as an alternative to face-to-face meetings.

Question 23

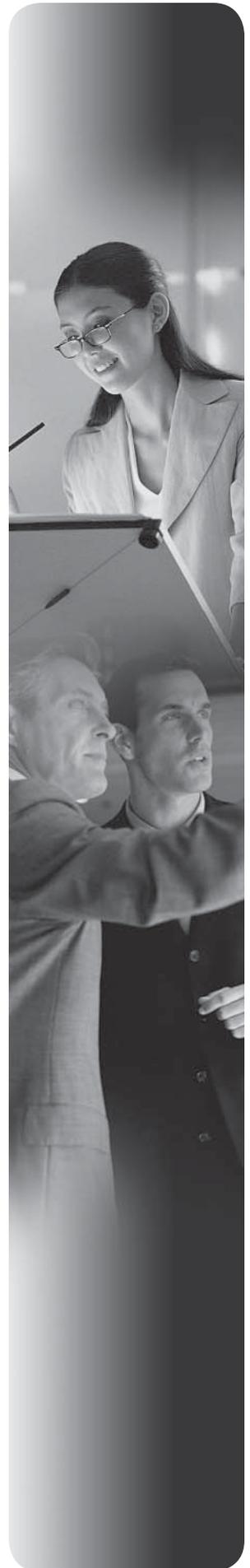
How frequently should state DOTs hold project status/plan review meetings with their consultants on large projects (>\$200,000 design fee): Weekly; Monthly; At Key Completion Points (e.g., 30–60–90); Other?

If you selected “Other,” please specify.

Summary of Responses

Fifty-nine percent preferred monthly meetings, 21 percent preferred review meetings at key completion points, 9 percent preferred weekly meetings, and 11 percent preferred meetings at some other frequency.

The majority of respondents switched from meetings at key completion points for small projects to regular monthly meetings for large projects. As with the responses to the previous question, the comments emphasized the need for flexibility depending upon the complexity of the project and the schedule for the design contract.





Question 24

Should a state DOT consider the equitable distribution of work between firms when selecting consultants? If yes, explain in additional comments how should this be done.

Summary of Responses

Approximately 60 percent were in favor of an equitable distribution of work between firms. Many comments were received, including several as to the meaning of “equitable distribution of work”. There was very strong support for the position that selection should be QBS, and that equitable distribution should only be considered after a QBS process. There were a small number of comments opposing equitable distribution on the basis that there should be competition, and equitable distribution of work removed the incentive to excel. Among those favoring equitable distribution of work, the reasons given were that it is in the DOT’s interests to have many qualified firms, and this approach encourages the growth of small firms. With respect to how this should be done, the most common suggestion was to apply a negative rating to firms having recent awards.

Question 25

Should a state DOT consider a firm’s current workload when selecting consultants? If yes, explain in additional comments how should this be done.

Summary of Responses

Almost 75 percent of the respondents were in favor of the DOT considering a firm’s workload when selecting consultants. Many of the comments suggested that workload is not a major issue beyond ensuring that key staff are available to work on the project. Several commented that consultants are experienced in managing staff complement and should be permitted to do so. Instead of workload, the real measure in the selection process should be the quality of work (including meeting schedules) on previous assignments. Workload is really the consultant’s business, and having evaluated the qualifications of the firm and staff, the DOT should be concerned only with securing a commitment for completion of the project. There were a few comments to the effect that the long time between the proposal stage and receiving the contract gives the consultant lots of time to deal with staffing issues.

Question 26

Should the scoping of work have more consultant input at the time of negotiations?

Additional comments?

Summary of Responses

The question resulted in a very strong (95 percent) response in favor of there being more consultant input to the scoping of work at the time of negotiations. Reasons given included: to compensate for inexperienced DOT project managers, that the practice is consistent with a team approach and a professional relationship, and to ensure a common understanding to determine the fee and schedule, thereby avoiding change orders. More consultant input in scoping was considered to be particularly important on larger projects. It was also noted that there is an opportunity for the consultant to be creative and that innovative design solutions can ultimately lead to lower construction costs.

Question 27

Which method of compensation is preferred on small projects (<\$200,000 design fee): Lump Sum; Cost Plus Fixed Fee; Rate of Pay (on-call contracts to accomplish a work order); Other?

If you selected "Other," please specify.

Summary of Responses

Seventy one percent preferred payment by lump sum, 13 percent by cost plus fixed fee, 10 percent by rate of pay, and five percent preferred some other method of payment.

Although a large majority of respondents were in favor of lump sum payments for small projects, several respondents commented that a lump sum payment is only suitable on projects for which the scope is clearly defined.

Question 28

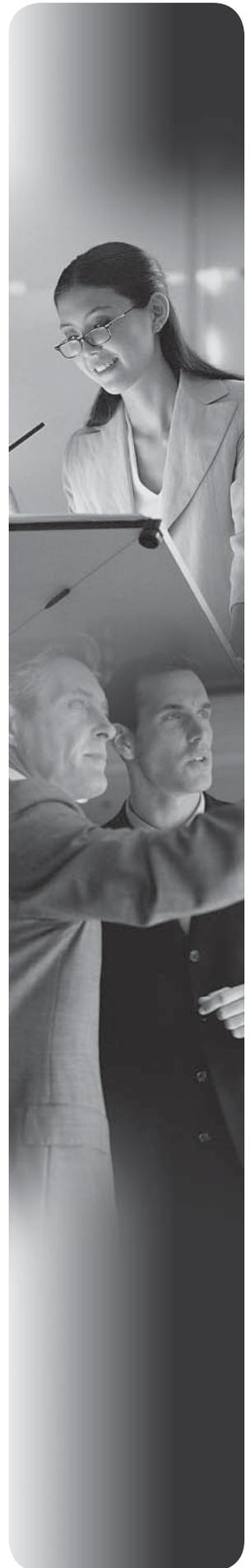
Which method of compensation is preferred on large projects (>\$200,000 design fee): Lump Sum; Cost Plus Fixed Fee; Rate of Pay (on-call contracts to accomplish a work order); Other?

If you selected "Other," please specify.

Summary of Responses

Forty-eight percent preferred payment by cost plus fixed fee, 40 percent lump sum, five percent by rate of pay, and seven percent preferred some other method of payment.

The responses were roughly evenly divided between cost plus fixed fee and lump sum, with about 10 percent of respondents in favor of another method of payment. As with the previous question, many of the comments noted the importance of having a clearly defined scope of work before lump sum payments are appropriate.





Question 29

Does inconsistency within state DOTs cause major problems in delivering projects? If yes, explain in the space for additional comments how you would suggest that these inconsistencies be overcome.

Summary of Responses

The responses were evenly divided between those that consider inconsistency to be a major problem in delivering projects, and those that do not. Several responses identified the need for the same standards to be applied across the state, and, in some cases, for more centralized control. Others suggested more decentralized decision-making. Several respondents also provided comments similar to those in response to Question 13 that major sources of inconsistencies are DOT project managers imposing personal preferences on consultants, inexperienced DOT staff, and an inability or unwillingness to make decisions. Others noted that in some states inconsistencies are the result of districts applying different interpretations of standards. More training, and better communications, both at the project level and with the consulting community, were the remedies suggested most frequently.

Question 30

Is your firm in favor of "design build" contracts? Please explain in additional comments.

Summary of Responses

The responses were reasonably evenly divided between those in favor, and those not in favor, of design-build. There were a very large number of comments received, although the responses to Question 7 showed that less than a quarter of the respondents were involved in design-build projects, and it represented only two percent of the preconstruction and construction engineering work awarded to consultants by state DOTs. The respondents in favor of design-build pointed out the advantages of accelerated schedules, innovative solutions, and control of costs. Those not in favor expressed concern about reduced quality and unproven cost benefits. There were also several comments that in design-build projects, the contractor can put pressure on the design consultant to design for the lowest cost and reduce design fees, and the process does not lend itself to participation by small firms.

Question 31

Does your firm participate in state-level liaison meetings? (e.g., American Council of Engineering Companies (ACEC) or others)

Summary of Responses

Ninety percent of the respondents participate in state-level liaison meetings.

Question 32

Why does or why does not your firm participate in state-level liaison meetings?

Summary of Responses

A large number of comments were provided, and many expressed the same sentiments. The most common reasons for participating were to be aware of developments affecting their business, and to provide an opportunity for discussion of items of mutual interest with DOT personnel in a non-confrontational setting. Having a voice in the resolution of issues was seen as very important. Other respondents cited opportunities for networking and building relationships. The few reasons given for not participating included location of meetings, workload, and domination of the consultant representation by larger firms.

Question 33

If you answered yes to question 31, are the liaison meetings beneficial? (Otherwise, skip to next question.) Additional comments?

Summary of Responses

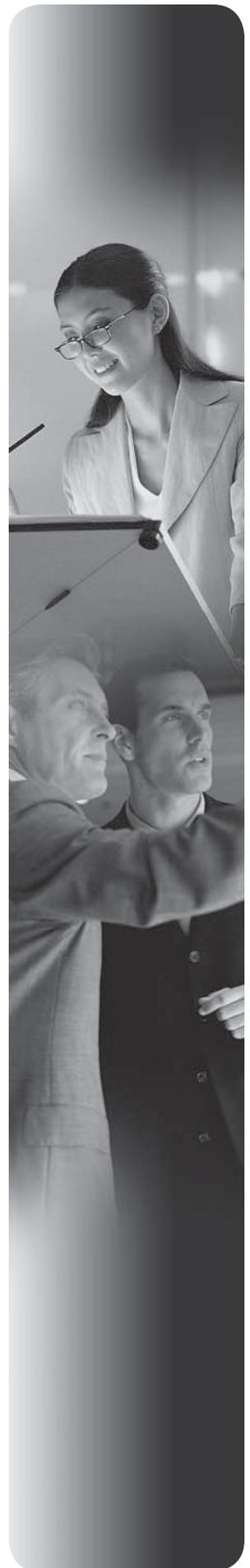
Ninety nine percent said they found the meetings beneficial. The comments were more measured: some were very positive in terms of improving communications and working relationships. Other comments indicated the benefits were limited. There were a few comments that stated the usefulness of the meetings was determined by whether DOT representatives had the authority to make changes with respect to the items under discussion.

Question 34

Please provide any additional comments or suggestions you may have.

Summary of Responses

Comments were received on a wide range of topics, many of which reinforced or repeated comments provided in response to earlier questions. There were a number of comments on the benefits of partnering. There were also positive comments with respect to the survey and a recommendation that it be repeated periodically.



APPENDIX C

Consultant Contracts

The consultant contract should clearly outline the terms and conditions under which the consultant is expected to function. In addition the contract specifies the services and products to be delivered, the responsibilities of the parties to the contract, and the time frame in which to perform. The contract is a legally binding agreement, and care must be taken to ensure that all parties clearly understand its terms and conditions. Examples of consultant contracts used in several states are on the following pages.





Sample Consultant Contract from Kansas DOT

CMS No. _____

AGREEMENT FOR ENGINEERING AND TECHNICAL SERVICES

The Parties are entering into this Agreement on this ____ day of _____, 20__.

The Parties to this Agreement are the consulting engineering firm of _____ (Consultant) and the Secretary of Transportation of the State of Kansas (Secretary). The Consultant's address is _____.

I. PURPOSE OF AND AUTHORITY FOR THE AGREEMENT

A. K.S.A. 75-5001 created the Kansas Department of Transportation (KDOT) to "coordinate the planning, development and operation of the various modes and systems of transportation within [Kansas]" under the Secretary's direction and supervision.

K.S.A. 68-407 authorizes the Secretary to enter into all contracts "incident to the construction, improvement, reconstruction, and maintenance of the state highway system". K.S.A. 68-407 and K.S.A. 75-5801 et seq. authorize the Secretary to take the steps necessary to secure engineering and technical services.

B. The Secretary proposes a highway improvement project designated as Project Number _____ for the _____ (Construction Project). However, the Secretary's engineering and technical forces will be unable to perform all of the design services needed for the Construction Project within the desired completion date. The best alternative is to use a qualified firm to perform the engineering and other technical services needed through this Agreement. The Consultant will furnish these services in one or more of the following phases:

Phase I: Provide the field surveys for the design of the Construction Project. See Special Attachment No. 4, Consultant's Proposal, which is attached to and incorporated into this Agreement.

Phase II: Provide design and plan preparation of alignment, grading, drainage, paving, and bridge improvements for the Construction Project to the field check stage and provide revisions identified at the field check. The Parties will negotiate a fee if and when the Secretary requests these Phase II services.

Phase III: Complete the design plans and specifications for the Construction Project. The parties will negotiate a fee if and when the Secretary requests the Phase III services.

Phase IV: Provide designer construction services, including bridge falsework review, bridge erection plan review, shop drawing review, bridge loading rating, plan revisions during construction, and similar tasks. The parties will negotiate a fee if and when the Secretary requests the Phase IV services.

C. The Consultant represents that its representatives have the education, training, and experience necessary to perform accurately and timely the engineering and associated technical services this Agreement requires. The Consultant has a valid Certificate of Authorization and individual employees are licensed by the Kansas Board of Technical Professions when Kansas law requires licensing.

II. DEFINITIONS

A. Agreement. This Agreement for Engineering and Technical Services including attachments to this Agreement, documents this Agreement incorporates by reference, any CMS Change Orders, and any future supplemental agreements

B. Construction Contract. A written agreement between the Secretary and a Contractor, requiring the Contractor to construct or reconstruct a Construction Project for which the Consultant is performing Services. The Construction Contract includes the following Contract Documents, all of which constitute one instrument and are incorporated by reference into this Agreement: proposal, exploratory work documents, addenda, amendments, contract form, contract bond, standard specifications, special provisions, project special provisions, general plans, detailed plans, the notice to proceed, material test methods, material test reports, material certifications, Part V of the KDOT Construction Manual, change orders, payment vouchers, guarantees, warranties, and other agreements, if any, that become required for Project construction completion.

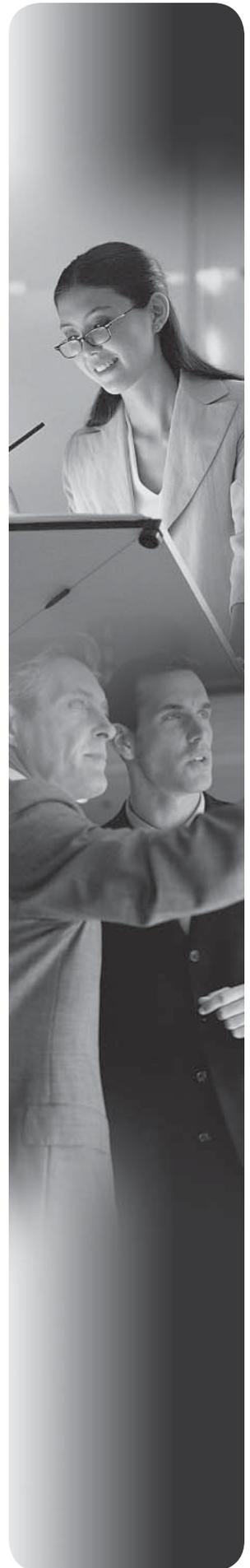
C. Construction Project. The specified location on which a Contractor shall perform construction together with all improvements the Contractor shall be constructing under a Construction Contract.

D. Consultant. The consulting engineering firm, its employees, subconsultants, and any other Consultant-retained agents that will be performing Services for the Project.

E. Contractor. The individual, partnership, corporation, joint venture, or other legal entity performing the Construction Contract.

F. Documents. Written, printed papers and electronic files.

G. Exploratory Work Documents. Documents KDOT, local governments, or Consultants develop to determine a Project's subsurface conditions, engineering requirements, or both. These may include geotechnical foundation investigation reports; soils reports; geology reports; hydraulic investigations; hydrological investigations; bridge reports; earth work computations; boring logs; surveys; rock investigations; soils investigations; environmental investigations; building investigations; bridge investigations; and other geological, geotechnical, or design information for the project.





H. FHWA. The Federal Highway Administration.

I. KDOT. The Kansas Department of Transportation and its authorized employees.

J. Manuals. The KDOT Design Manual, Construction Manual, Form Manual, CMS Procedures Manual, Manual on Uniform Traffic Control Devices, and all other current documents KDOT requires for performing design engineering and associated technical services.

K. Notice to Proceed. A written notice authorizing the Consultant to begin the Services.

L. Plans. Unless noted as “preliminary”, the Consultant-prepared and Secretary approved plan profiles, typical cross sections, and other detail sheets showing the location, character, dimensions, and details of a Contractor’s work on a Construction Project.

M. Project. The detailed engineering and associated technical Services needed for any one or more Phases identified in Section I.B. As the Secretary may require the Consultant to perform the engineering and associated technical services for the Construction Project in Phases, there may be several supplemental agreements and thus several Projects related to that one Construction Project.

N. Reports. Formal documents that detail or summarize information generated for or gathered for the Project or for a Construction Project. Exploratory work documents are considered Reports.

O. Services. The engineering and associated technical duties necessary to comply with this Agreement. Such services are defined throughout the Agreement and with greater detail in Special Attachment No. 4, Consultant’s Proposal, and any supplemental agreements executed for later Phases.

P. Special Provisions. Documents that modify the Standard Specifications for all Construction Projects or for a particular Construction Project. Documents that furnish details not covered by KDOT’s Standard Specifications such as special fabrication features and construction features, among other items.

Q. Standard Specifications. The Kansas Department of Transportation Standard Specifications for State Road and Bridge Construction (2007 Edition).

III. SECRETARY’S GENERAL RESPONSIBILITIES.

A. The Secretary will employ the Consultant to perform the Phase I Services identified in Special Attachment No. 4, Consultant’s Proposal, unless the Secretary modifies the Services or terminates this Agreement.

B. The Secretary may employ the Consultant to perform work on later Phases identified on Page 1 of this Agreement for an additional agreed upon cost plus net fee or other amount. For these Phases, the Parties will execute one or more supplemental agreements and associated Special Attachment No. 4, Consultants Proposals. In the Designer Construction Services Phase, the Parties will execute an Exhibit B, Designer Construction Services, rather than a Supplemental Agreement and Special Attachment No. 4.

C. For each Phase on which the Secretary hires the Consultant under this Agreement, the Secretary will:

1. Issue the Consultant a Notice to Proceed.

2. Furnish or make available to the Consultant existing highway plans, exploratory work documents in the Secretary's possession, Manuals, and all other documents the Secretary has agreed to furnish as identified on Exhibit A, Items Furnished by the Secretary. Graphic files will be in the form of a current Bentley Microstation Design File.

3. Prepare those exploratory work documents the Secretary determines that KDOT should prepare.

4. Pay the Consultant according to Section VI.

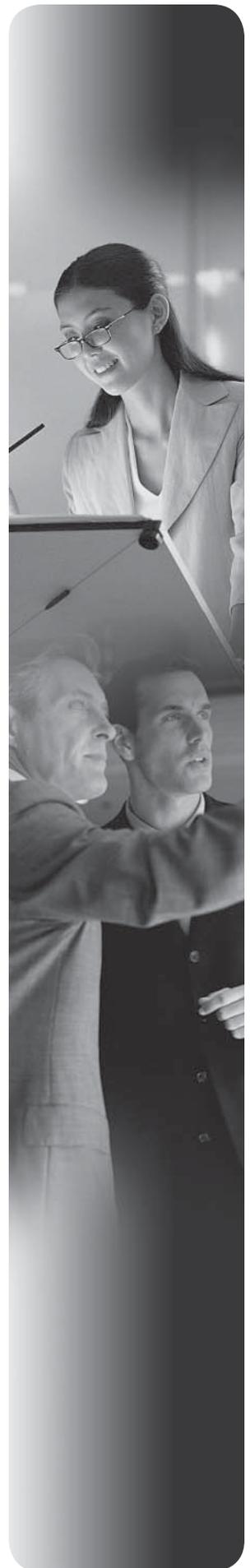
D. As this Agreement is non-exclusive, the Secretary may contract directly with other Consultants to perform some or all of the Services. The Secretary may also contract directly with subconsultants that the Consultant has retained to perform services under this Agreement.

E. The Secretary has the authority to review, approve, reject, eliminate, or modify some or all of the Services. When reviewing the Services, issuing approvals/rejections, or taking any other action, the Secretary and the Secretary's representatives are not undertaking the Consultant's responsibility for its Services. When reviewing the Services, issuing approvals/rejections, or taking any other action, the Secretary and the Secretary's representatives make no representations, no express warranties, and no implied warranties to any persons or entities regarding the Services. The Secretary's performance under this Agreement is intended to fulfill the Secretary's obligation to take those steps necessary to construct, improve, reconstruct, and maintain the state highway system.

IV. THE CONSULTANT'S GENERAL RESPONSIBILITIES.

A. The Consultant shall:

1. Prepare a proposal identifying the Services to be performed for that Phase, the price for the Services, and an estimated schedule (bar chart or other type) for performing component tasks (Consultant's Proposal). After the Secretary accepts the Proposal, the Consultant's Proposal will be incorporated into this Agreement or any Supplemental Agreement





as Special Attachment No. 4, Consultant's Proposal or as an Exhibit B, Designer Construction Services (if in the designer construction services phase). The Consultant shall prepare two copies of the Consultant's Proposal or Designer Construction Services for the Consultant's and Secretary's signature.

2. Furnish all labor materials, equipment, supplies, transportation, and incidentals necessary to perform the Services for any Phase on which the Secretary hires the Consultant under this Agreement. The Consultant represents that it is adequately staffed and suitably equipped to perform the Services according to this Agreement and in a timely manner.

3. Prepare and furnish to the Secretary preliminary reports, technical data, special provisions, and plans when the Consultant's Proposal for that Phase specifies these Services.

4. Prepare and furnish to the Secretary revisions to preliminary reports, technical data, special provisions, and plans the Secretary requests or the Consultant determines are needed to meet required design criteria/standards and Manuals when the Consultant's Proposal for that Phase specifies these Services.

5. Prepare and furnish to the Secretary final reports, technical data, special provisions, plans, and an Engineer's estimate when the Consultant's Proposal for that Phase specifies these Services. Identify any existing special provisions applicable to the Construction Project.

Final reports and plans shall be reproducible. Final plans shall contain standard 22" x 36" plan sheets in ink on a permanent media such Mylar in the format and detail KDOT Bureau of Design requires.

The licensed professional engineer responsible for preparing the plans shall sign and seal the plans.

The licensed geologist responsible for preparing geological reports shall sign and seal these reports unless a licensed professional engineer signs and seals these reports as permitted in K.S.A. 74-7001 et seq.

The licensed land surveyor(s) responsible for conducting land surveying activities as defined in K.S.A. 74-7003(k) shall sign and seal any real property descriptions, right of way descriptions, maps, plats, and other field records that document survey results.

6. Prepare and furnish to the Secretary electronic data files (survey, design, and plan preparation files using electronic data processing techniques) in the current Bentley Micro station format. Organize the electronic data files according to the KDOT Graphic Standards Manual.

7. Furnish to the Secretary a list of changes the Consultant makes to KDOT standard plan sheets, if any.

8. Provide traffic control signing on or along any street or highway where the Consultant has crews working. The size, shape, color, and placement of all signs shall comply with the latest version, as adopted by the Secretary, of the Manual on Uniform Traffic Control Devices (MUTCD).

9. Notify and obtain permission from KDOT's Bureau of Design before performing extra services as provided in Section VI. B.

B. The Consultant shall perform all Services according to design criteria/standards that KDOT has adopted and the Federal Highway Administration (FHWA) has approved for the particular highway and structures included in the Construction Project. KDOT has adopted the following design criteria/standards: KDOT Design Manual, the current Geotechnical Bridge Foundation Investigation Guidelines, Bureau of Design's Road Memoranda, KDOT Graphic Standards Manual, the latest version, as adopted by the Secretary, of the Manual on Uniform Traffic Control Devices (MUTCD), the current version of the Bureau of Traffic Engineering's Traffic Engineering Guidelines, and the current version of KDOT's Standard Specifications and Special Provisions. The Consultant also may be required to perform some or all Services according to AASHTO design criteria/standards if the Secretary requires these standards in addition to KDOT's criteria/standards.

C. The Consultant shall have sole responsibility for the adequacy and accuracy of final reports, technical data, special provisions, plans, and all other Services. The Secretary's performance under this Agreement is intended to fulfill the Secretary's obligation to take those steps necessary to construct, improve, reconstruct, and maintain the state highway system and is not intended to fulfill the Consultant's obligations under this Agreement.

V. PROSECUTION AND PROGRESS

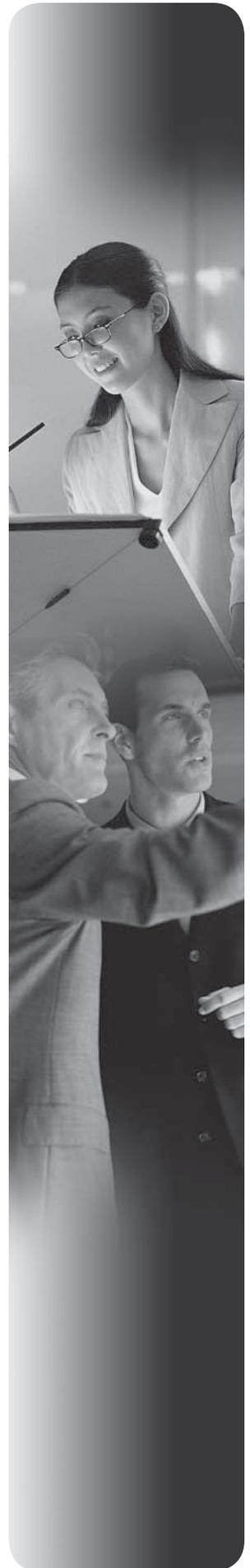
A. GENERAL

1. The Secretary assumes no obligation to pay for Services the Consultant performs on any Phase before KDOT issues the Consultant's Notice to Proceed for that Phase.

2. The Consultant shall perform its Phase I Services according to the schedule contained in Special Attachment No. 4, Consultant's Proposal.

3. For Phases other than the Designer Construction Services Phase, the Consultant shall prepare an estimated schedule for performing component Services and submit this schedule with the Consultant's Proposal. Once the Secretary approves any schedule, the Consultant shall meet the approved schedule. The Consultant also shall keep informed of changes to KDOT's milestone dates for right-of-way acquisition, utility relocations, and the Construction Project letting.

4. At monthly intervals, the Consultant shall report actual progress to the KDOT Bureau of Design.





5. If the Secretary or a third party performs in a manner that increases the Consultant's time for performance, the Consultant shall notify the KDOT Bureau of Design of such delay. If the Consultant did not cause or contribute to the delay, the Secretary will pay the Consultant to accelerate the Services to overcome the delay or the Secretary will grant an extension of time for the delay. The Secretary has sole discretion to give a time extension rather than pay acceleration costs.

6. The Consultant shall perform its Services in a manner that does not cause excusable delay, compensable delay, or other damages to the Contractor on the Construction Project, KDOT's maintenance forces, public utilities, private utilities, public landowners, private landowners, or a combination of these entities.

7. The Secretary, Consultant, or both may request conferences to discuss the Consultant's Services or other relevant Project issues. The parties will hold these conferences in the KDOT Headquarters Office in Topeka, Kansas unless the parties agree otherwise.

8. Except when the Consultant has to perform Construction Design Services (See Section V.B), the Consultant's Services are considered complete upon the Secretary approving the final plans or the preliminary plans if the Consultant was not required to prepare final plans.

B. SERVICES DURING CONSTRUCTION CONTRACT PERFORMANCE

1. The Secretary may require the Consultant to perform Construction Design Services, such as bridge falsework review, bridge erection plan review, shop drawing review, bridge loading rating, and revisions to final reports, technical data, special provisions and plans, among other items. The Secretary will pay the Consultant for these Services according to Section VI.A.

2. At the Secretary's request, the Consultant shall attend Construction Project conferences or meetings that occur during Construction Contract performance. The Secretary may hold such conferences/meetings to discuss the Consultant's Services, the Contractor's operations, third parties' concerns, or other relevant Project or Construction Project issues. The Secretary will pay the Consultant for these Services according to Section VI.A.

3. The Consultant shall provide additional services the Secretary may require for claims or litigation matters during or after Construction Contract performance. The Secretary will pay the Consultant for these extra services according to Section VI.B.

4. The Secretary will not pay the Consultant for any costs the Consultant incurred under Section V.B, because of the Consultant's failure to comply with its contract obligations under this Agreement or because of the Consultant's negligent acts, errors, or omissions.

C. DISPUTED MATTERS

1. Disputed matters arising under this Agreement will be reviewed utilizing procedures outlined in the KDOT's Consultant Standard of Care Policy. This Consultant Standard of Care Policy is the version in effect at the time the disputed matter arises and is incorporated by reference into this Agreement.

D. TERMINATION OF AGREEMENT

1. The Secretary may terminate this Agreement upon written notice to the Consultant. The Secretary's designee will send the notice at least (10) days before the termination date stated in the notice.

- If the Secretary terminates this Agreement without fault on the Consultant's part, the Secretary will pay the Consultant the Consultant's direct costs incurred before the termination date and the Consultant's net fee as Section VI provides.
- If the Secretary terminates this Agreement because of the Consultant's failure to comply with its contract obligations or because of the Consultant's negligent acts, errors, or omissions, the Secretary will pay the Consultant the reasonable value of Services performed before the termination date. In evaluating the reasonable value of Services performed, KDOT may adjust the net fee to reflect the percentage of work the Consultant has completed.

2. The Consultant shall have no breach of contract claim if the Secretary terminates this Agreement as Section V.D.1 allows. Regardless of the basis for terminating, nothing in Section V.D.1 prevents the Secretary from recovering damages under Section VII.F for the Consultant's failure to comply with its contract obligations under this Agreement or for the Consultant's negligent acts, errors, or omissions.

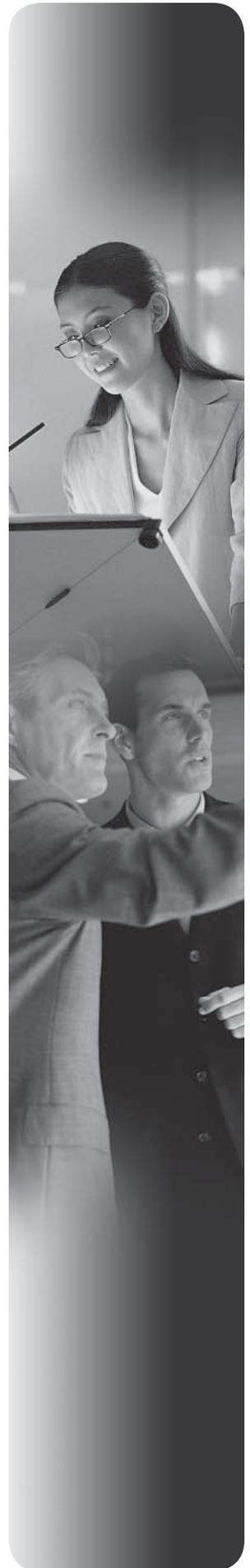
3. Even if the Secretary terminates this Agreement under Section V.D.1, the Secretary may require the Consultant to complete some of the remaining Services. The Consultant's obligations shall not end until such work is completed, and the Secretary will pay for these Services under Section VI.A. Additionally, nothing in Section V.D.1 prevents the Consultant from seeking recovery for extra services under Section VI.B.

4. The Secretary is not obligated to terminate this Agreement as a condition precedent to contracting with "another consultant" as defined and permitted in Section III.C. The Consultant shall have no breach of contract claim, interference with contract claim, or other claim if the Secretary contracts with "another consultant" as defined and permitted in Section III.C.

VI. PAYMENT

A. GENERAL

1. The Secretary will compensate the Consultant for Phase I Services on the basis of the Consultant's actual cost plus a net fee of \$ _____ as detailed in Special Attachment





No. 4, subject to the upper limit of compensation of \$_____ (Section VI.A.6) and any disallowed costs (Section VI.A.9). The Consultant's actual cost includes:

- Actual, direct costs incurred in performing the Phase I Services such as employee labor (including fringe benefits and overtime (Section VI.A.3)), contract labor, approved subcontractor/subconsultant costs, equipment costs, transportation costs, lodging costs, and meal expenses as further detailed in Special Attachment No. 4 and
- Associated overhead (Section VI.A.4).

2. The Secretary will compensate the Consultant for any Services the Secretary requires on Phase II and subsequent Phases based on an agreed upon actual cost plus net fee or other amount for each Phase. The Secretary will set an upper limit of compensation for each Phase (Section VI.A.6) and adjust payments for any disallowed costs (Section VI.A.9). The Parties will execute one or more Supplemental Agreements and an associated Special Attachment No. 4, Consultant's Proposal, for all Phases other than the Designer Construction Services Phase. In the Designer Construction Services Phase, the Parties will execute an Exhibit B, Designer Construction Services, rather than a Supplemental Agreement and Special Attachment No. 4.

3. The Consultant shall furnish to the KDOT Bureau of Design for the Secretary's approval a written request to incur overtime charges before incurring those charges. The Secretary shall not compensate for overtime if the Consultant failed to furnish this notice and obtain the Secretary's approval. If approved, the Secretary will pay overtime at 1.5 times the approved hourly rate for the employee performing the overtime.

4. The Consultant shall submit its overhead rate within seventy-five (75) days after the Consultant's fiscal year ends. The Secretary may audit the Consultant's overhead rate yearly. The Secretary may require the Consultant to provide certified financial statements or other documents substantiating the Consultant's overhead rates. If the overhead rate increases or decreases, the Secretary will adjust previous payments to reflect the actual overhead rate for that fiscal year.

5. Subject to the upper limit of compensation (Section VI.A.6), the Secretary will pay for extra services according to Section VI.B.2.

6. On any Phase, the Parties may adjust the upper limit of compensation through a CMS Change Order or Supplemental Agreement. The Consultant shall notify the KDOT Bureau of Design before the Consultant's Services exceed the upper limit of compensation so the Parties may consider an adjustment. The Secretary has no obligation to pay costs that exceed the upper limit of compensation identified in this Agreement, in a Special Attachment No. 4, Consultant's Proposal, in an Exhibit B, Designer Construction Services, or in a CMS Change Order/Supplemental Agreement that modifies the upper limit of compensation.

7. To initiate payment on the Project, the Consultant shall complete and submit to the KDOT Bureau of Design an itemized billing on KDOT's Payment Request Form or other document the KDOT Bureau of Design approves. The Consultant shall not submit a billing more frequently than once a month. For each billing period, the Consultant shall:

- Submit a progress schedule that includes a statement of the percentage of the Services completed and the actual costs incurred;
- Submit payroll documentation identifying all employees that worked on the Project during that billing period, all hours each of these employees worked, the rate of pay for each of these employees, and all monies paid to each of these employees;
- Show the overhead rate applied; and
- Itemize the direct expenses.

8. The Secretary will pay for the Services within 30 days after receiving, reviewing, and generally approving the Consultant's itemized billing and accompanying documentation that Section VI.A.7 requires. This approval does not prevent the Secretary from adjusting a previous payment(s) for disallowed costs (Section VI.A.9) discovered after the Secretary has made that payment.

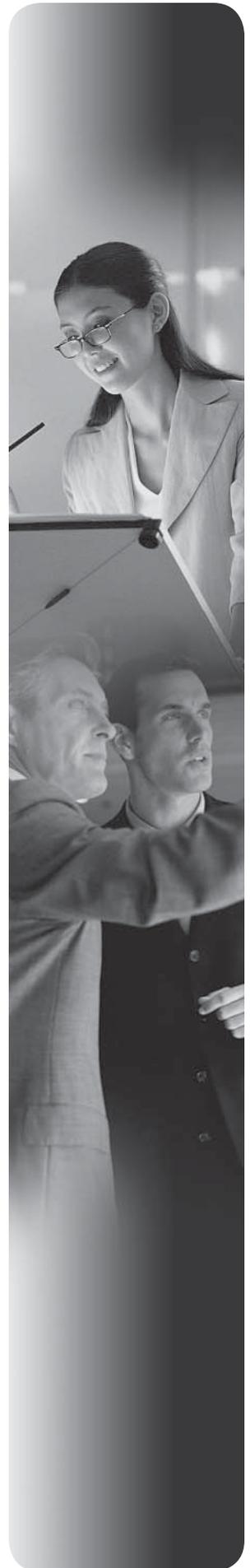
9. The Consultant shall incur all costs in conformity with generally accepted accounting principles and the cost principles established in the Federal-Aid Highway Policy Guide (Vo.1, Ch.7, Sect. 2) and the Code of Federal Regulations, Title 48, Chapter 1, Subchapter E, Part 31 (48 CFR Section 31.000 et seq.). The Secretary will not pay for disallowed costs. Disallowed costs include costs the Secretary determines are unreasonable; not actually incurred; caused by the Consultant's failure to comply with its contract obligations; caused by the Consultant's negligent acts, errors, or omissions; or otherwise unallowable. The Consultant shall reimburse the Secretary if the Secretary paid any of these costs previously.

10. For Services performed in each Phase, accumulated partial payments on each Phase shall not exceed ninety-five percent (95%) of the upper limit of compensation for that Phase.

11. The Consultant shall submit its invoice for final payment on each Phase of the Project following completion of Services on that Phase.

- If the Secretary does not require the Consultant to prepare final plans, the Consultant shall submit its invoice for final payment no later than one hundred eighty (180) days after the Secretary approves the preliminary plans.
- If the Secretary requires the Consultant to prepare final plans, the Consultant shall submit its invoice for final payment on that Phase no later than one hundred eighty (180) days after the Secretary approves the final plans.
- If the Secretary requires the Consultant to perform designer construction services, the Consultant shall submit its invoice for final payment no later than one hundred eighty (180) days after the Secretary approves the Services performed under the Exhibit B, Designer Construction Services.

12. The invoice for final payment initiates the Secretary's closure of and audit of that Phase. The Consultant shall not submit additional invoices for payment on that Phase without the Secretary's approval.





13. The Secretary will make final payment for each Phase within ninety (90) days after the Secretary or the Secretary's representative completes a final audit of that Phase of the Project. (See Section VII.B).

B. CHANGE IN SERVICES

1. The KDOT Bureau of Design may change the Consultant's Services by increasing, decreasing, or otherwise modifying the duties this Agreement details.

2. The Consultant may request payment for increased or modified duties as "extra services". If the Secretary determines the "extra services" are reasonable and necessary, the Secretary will authorize payment for direct costs and overhead associated with these "extra services" and increase the upper limit of compensation if necessary to compensate for the "extra services." However, the Secretary will only increase the Consultant's net fee if the Consultant demonstrates that the "extra services" substantially increase the original amount of Services. Such increases may include increasing the Project scope by altering a substantially completed design, expanding Construction Project termini, adding structures, adding new items of services beyond those stated or implied in this

Agreement, adding new items of Services not customarily expected in the design engineering community, or changing the duration of services, among others.

3. If the KDOT Bureau of Design decreases the Services or decreases the expected duration of Services, the Consultant shall have no claim for additional compensation. The Secretary may decrease the Consultant's net fee if the Secretary demonstrates that the decreased services substantially decrease the original amount of Services. Such decreases may include eliminating structures, decreasing the Construction Project scope, decreasing Construction Project termini, or decreasing the duration of Services, among others.

4. The KDOT Bureau of Design will prepare a CMS Change Order or Supplemental Agreement setting forth the agreed-upon change in compensation under Section VI.B.2 or VI.B.3.

5. Nothing in Section VI.B precludes the Parties from negotiation a cost plus net fee or other amount for later phases.

VII. MISCELLANEOUS PROVISIONS

A. OWNERSHIP OF DOCUMENTS

1. Upon completion or termination of each Phase of the Project, the Consultant shall furnish to the KDOT Bureau of Design all documents KDOT provided to the Consultant that the Consultant does not need for subsequent Phases.

2. Upon completion or termination of all Phases for which the Secretary retains the Consultant, the Consultant shall furnish to the KDOT Bureau of Design all original documents the Consultant compiled and prepared in performing its Services. Without limitation, these documents include all reports, drawings, CADD files, specifications, software, source code documentation, other electronic files, work flows, procedures, other Consultant-generated documents, and other Consultant-developed documents pertaining to the Project. These documents, including the underlying intellectual property rights incorporated into these documents, are KDOT's property. The Secretary's ownership and use of these documents is unrestricted.

3. Upon completion or termination of each Phase of the Project and at the Secretary's request, the Consultant shall furnish to the KDOT Bureau of Design copies of all correspondence, memoranda, e-mails, instructions, receipts, invoices, and any other documents pertaining to the Project. These documents are KDOT's property.

4. Any or all Phases under this Agreement may result in the Consultant using documents (such as reports, surveys, schedules, lists, or data) the Secretary's authorized representatives prepared, compiled, or collected that are use restricted pursuant to 23 U.S.C. § 409. Such documents are watermarked "Use Restricted 23 U.S.C. § 409", providing the Secretary with an evidentiary privilege that only counsel for KDOT may assert in litigation against KDOT. The Consultant shall use these watermarked documents only to perform Services on the Project. The Consultant shall not remove or otherwise damage the 23 U.S.C. § 409 watermark.

B. ACCESS TO RECORDS; AUDITS

1. The Consultant shall keep all Project documents for a five-year period beginning with the Consultant's final payment date. The final payment date is the voucher date on the Secretary's last payment to the Consultant for a specific Special Attachment No. 4, Consultant's Proposal, or for a specific Exhibit B, Designer Construction Services. This final payment occurs after the Consultant submits its request for final payment and KDOT has completed the final audit for that specific Consultant's Proposal or Exhibit B, Designer Construction Services. The Consultant shall make all documents available at the Consultant's principal office.

2. The Secretary, FHWA, or both may inspect and review all documents pertaining to the Consultant's Services during the Project and for the 5-year document retention period specified in Section VII.B.1.

3. The Consultant shall maintain all cost documentation according to generally accepted accounting principles and the cost principles contained in Code of Federal Regulations, Title 48, Chapter 1, Subchapter E, Part 31 (48 CFR Section 31.000 et seq.).

4. Within 3 years after the Consultant has submitted its invoice for final payment on a particular Phase of the Project, having completed its Services on that Phase, the Secretary





or the Secretary's authorized representatives will perform a final Audit of the Consultant's Project costs for that Phase. The Audit will be conducted according to generally accepted governmental auditing standards and in compliance with cost principles contained in Code of Federal Regulations, Title 48, Chapter 1, Subchapter E, Part 31 (48 CFR Section 31.000 et seq.); therefore, the scope of the final Audit may vary among Phases. Without limitation, the Auditors may determine whether costs incurred were actual and necessary, reasonable, allowable, and in compliance with regulations and whether the compensation did not exceed the upper limit of compensation for that Phase. The Auditors may review all subconsultant records and costs as well. The Consultant shall reimburse the Secretary for overpayments.

5. The Consultant shall include the provisions in Section VII.B.1, B.2, and B.3 in all subconsultant agreements to make subconsultants responsible for maintaining Project documents in the same manner as the Consultant.

C. AGREEMENT ITEMS

1. This Agreement for Engineering and Technical Services includes attachments to this Agreement, documents this Agreement incorporates by reference, any future Exhibit B, Designer Construction Services, any future CMS Change Orders, and any future Supplemental Agreements.

2. The Attachments identified below are essential parts of and incorporated into this Agreement. The Consultant shall complete and sign where indicated. The Attachments are:

- Special Attachment No. 2, Certification of Consultant/Certification of the Assistant Secretary & State Transportation Engineer (to be completed and signed by the Consultant and Deputy Secretary).
- Special Attachment No. 2A, Certification—Federal Funds—Lobbying (to be completed and signed by the Consultant).
- Special Attachment No. 3, Certification by Prospective Participants as to Current History Regarding Debarment, Eligibility, Indictments, Convictions, or Civil Judgments (to be completed and signed by the Consultant).
- Special Attachment No. 3A, Contractual Services with Current Legislator or Legislator's Firm/ Required Contract Provision Certification (to be completed and signed by the Consultant).
- Special Attachment No. 4, Consultant's Proposal (to be completed by the Consultant and signed by Consultant and KDOT Bureau of Design).
- Special Attachment No. 5, Electronic Data Interchange Agreement (to be signed by the Consultant).
- Exhibit A, Items Furnished by the Secretary (to be completed by the Secretary's representatives)

3. No Party may alter this Agreement except by a Special Attachment No. 4, Consultant's Proposal; Exhibit B, Designer Construction Services; CMS Change Order; or Supplemental Agreement.

D. LEGAL RELATIONS

1. The Consultant shall observe and comply with all applicable federal, state, and local laws, ordinances and regulations.
2. This Agreement binds the parties and the parties' successors and assigns.
3. This Agreement creates no third party beneficiaries.
4. Kansas law governs this Agreement.

E. WORKER'S COMPENSATION AND OTHER EMPLOYEES PROVISIONS

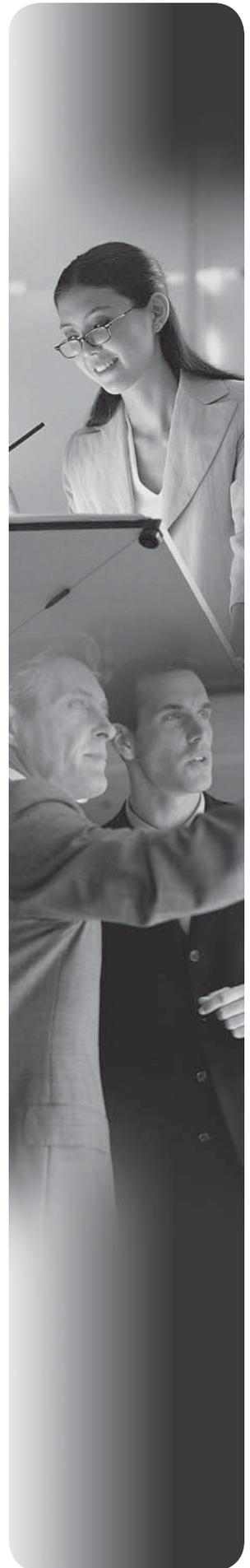
1. The Consultant shall pay Unemployment Insurance, Worker's Compensation, Social Security taxes, and other taxes or payroll deductions State and Federal Law require for the Consultant's employees who are working under this Agreement.

F. ERRORS AND OMISSIONS; INDEMNIFICATION; INSURANCE

1. The Consultant shall correct promptly its negligent acts, errors, or omissions without additional compensation. If the services affect a third party, the Consultant shall perform corrections in a manner that minimizes delay to the third party and other damages.
2. The Consultant shall be responsible for property and personal injury damages to another person because of the Consultant's negligent acts, errors, or omissions in performing its Services. However, this provision does not create third party beneficiary status for these property and personal injury damages or otherwise expand the Consultant's liability for these damages beyond what Kansas law allows.
3. The Consultant shall hold the Secretary and the Secretary's authorized representatives harmless from and indemnify these persons for all claims, suits and damages (whether personal injury or property damage) resulting from the Consultant's failure to comply with its contract obligations under this Agreement, resulting from the Consultant's negligent acts, errors, or omissions in performing its Services, or all of the above.
4. For the life of this Agreement, the Consultant shall maintain general professional liability insurance or specific professional liability insurance to cover the Consultant's operations on the Project. If the Secretary feels the coverage is inadequate, the Secretary may require the Consultant to increase the scope of coverage, amount of coverage, or both. The Consultant shall require subconsultants and other Consultant-retained agents to carry general professional liability insurance or specific professional liability insurance as well.

G. CONFLICT OF INTEREST

1. The Consultant warrants it has no public or private interest and shall acquire directly or indirectly no such interest that would conflict with the Services performed under this Agreement.





2. On the Project, the Consultant shall perform no design engineering or associated technical work for an entity other than KDOT.

3. The Consultant shall not hire persons in KDOT's employment to provide Services under this Agreement without the Secretary's written permission.

H. EFFECTIVE DATE; REPRESENTATION OF AUTHORITY

1. This Agreement shall become effective when either the Secretary or the Secretary's authorized representative signs the Agreement and the Consultant's authorized representative signs the Agreement. The Agreement will be effective on the date set forth on page 1.

2. In signing this Agreement, the Parties and the individual person signing represent that the person signing has the authority and capacity to execute and legally bind the respective entity to this Agreement.

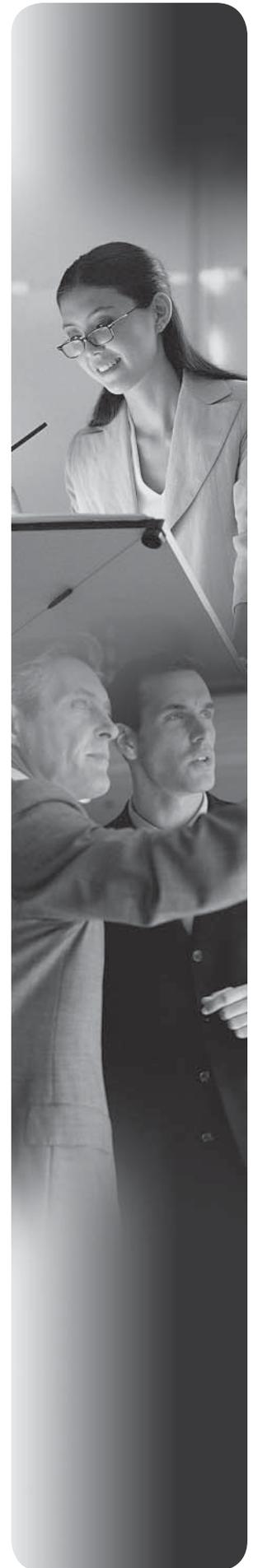
SECRETARY OF TRANSPORTATION

By: _____

(Date)

Sample Consultant Contract Outline from California DOT

STATE OF CALIFORNIA STANDARD AGREEMENT STD 213 (rev 9/01) Division of Procurement and Contracts (DPAC) A&E Boiler Revision Date 07/20/07	Department of Transportation		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">AGREEMENT NUMBER</td> <td style="width: 50%; text-align: center;">REGISTRATION NUMBER</td> </tr> </table>	AGREEMENT NUMBER	REGISTRATION NUMBER
AGREEMENT NUMBER	REGISTRATION NUMBER		
1. This Agreement is entered into between the State Agency and the Contractor named below:			
STATE AGENCY'S NAME STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (Hereinafter referred to as "the Department")			
CONSULTANT'S NAME (Hereinafter referred to as "the Consultant")			
2. The term of this Agreement is from _____ through _____.			
3. The maximum amount of this Agreement is: _____			
4. The parties agree to comply with the terms and conditions of the following exhibits/attachments which are by this reference made a part of the Agreement.			
Exhibit A – Scope of Work and Deliverables	Pages		
Exhibit B – Budget Detail and Payment Provisions	Pages		
Exhibit C – General Terms and Conditions 307 (GTC 307)	Page		
Exhibit D – Special Terms and Conditions	Pages		
Exhibit E – Additional Provisions	Pages		
Exhibit F – Prevailing Wage Requirements	Pages		
Attachment 1 – Scope of Work	Pages		
Attachment 2 – Cost Proposal	Pages		
Attachment 3 – Sample Task Order Format	Pages		
Attachment 4 – WBS	Pages		
Item shown with an Asterisk (*) is hereby incorporated by reference and made part of this Agreement as if attached hereto.			
IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.			
CONTRACTOR (herein referred to as "the Consultant")	<i>California Department of General Services Use Only</i>		
CONSULTANT'S NAME (if other than an individual, state whether a corporation, partnership, etc.)			
BY (Authorized Signature)	DATE SIGNED (Do not type)		
PRINTED NAME AND TITLE OF PERSON SIGNING			
ADDRESS			
STATE OF CALIFORNIA			
AGENCY NAME Department of Transportation			
BY (Authorized Signature)	DATE SIGNED (Do not type)		
PRINTED NAME AND TITLE OF PERSON SIGNING			
ADDRESS 1727 30 th Street, MS 65 Sacramento, CA 95816			
<input type="checkbox"/> Exempt per:			



Outline of Contract Sections

EXHIBIT A

SCOPE OF WORK AND DELIVERABLES

- I. Scope of Work
- II. Task Order
- III. Consultant Reports and/or Meetings

EXHIBIT B

BUDGET DETAIL AND PAYMENT PROVISIONS

- I. Funding Requirements
- II. Compensation and Payment
- III. Cost Principles
- IV. Contingent Fee

EXHIBIT C

GENERAL TERMS AND CONDITIONS

NOTE: in this Exhibit C—GTC 307, the General Terms and Conditions are included in this Agreement by reference and made part of this Agreement as if attached hereto. See <http://www.ols.dgs.ca.gov/Standard+Language/default.htm>.

The following language is to be included in lieu of the Standard Indemnification Clauses used in DGS GTC–307 General Terms and Conditions.

Indemnification

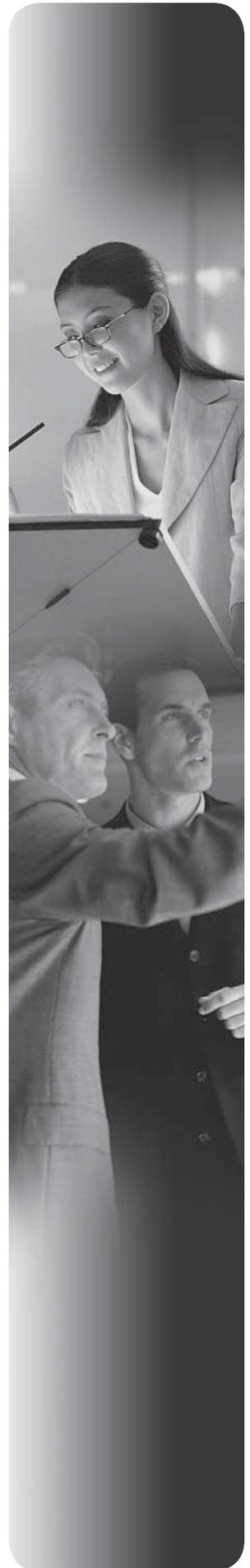
The Consultant agrees to indemnify, defend, and hold harmless the Department, its officers, agents, and employees from any and all claims, demands, costs, or liability arising from or connected with the services provided hereunder due to negligent or intentional acts, errors, or omissions of the Consultant. The Consultant will reimburse the Department for any expenditure, including reasonable attorney fees, incurred by the Department in defending against claims ultimately determined to be due to negligent or intentional acts, errors, or omissions of the Consultant.



EXHIBIT D

SPECIAL TERMS AND CONDITIONS

- I. Amendment (Change in Terms)
- II. Disputes
- III. Termination
- IV. Early Termination of This Agreement or Task Order(S), or Suspension of this Agreement
- V. Consultant's Deliverables Under Early Termination
- VI. Invoice Submittal Under Early Termination
- VII. Termination Issues for Subconsultants, Suppliers, and Service Providers
- VIII. Cost Principles Under Early Termination
- IX. Disputes Under Early Termination Conditions
- X. Audit Review Procedures Under Early Termination
- XI. Consultant Claims Against This Agreement or Task Order(s) Under Early Termination
- XII. Non-Discrimination
- XIII. Retention of Record/Audits
- XIV. Audit Review Procedures
- XV. Subcontracting
- XVI. Equipment Purchase
- XVII. Inspection of Work
- XVIII. Safety
- XIX. Insurance
- XX. Damages Due to Errors and Omissions
- XXI. Ownership of Data
- XXII. Claims Filed by Department's Construction Contractor
- XXIII. Confidentiality of Data
- XXIV. Evaluation of Consultant
- XXV. Statement of Compliance





XXVI. Debarment and Suspension Certification

XXVII. Conflict of Interest

XXVIII. Rebates, Kickbacks, or Other Unlawful Consideration

XXIV. Prohibition of Expending State or Federal Funds for Lobbying

APPENDIX A

I. Compliance with Regulations

II. Non-Discrimination

III. Solicitations for Subagreements, including Procurements of Materials and Equipment

IV. Information and Reports

V. Sanctions for Noncompliance

VI. Incorporation of Provisions

EXHIBIT E PREVAILING WAGE REQUIREMENTS

I. Disadvantaged Business Enterprise (DBE) Participation

II. Performance of DBE Consultants, and Other DBE Subconsultants/Suppliers

III. Exclusion of Retention

IV. DBE Records

V. DBE Certification and De-Certification Status

VI. When Reporting DBE Participation, Material or Supplies Purchased from DBEs May Count as Follows

VII. When Reporting DBE Participation, Participation of DBE Trucking Companies May Count as Follows

EXHIBIT F PREVAILING WAGE REQUIREMENTS

I. State Prevailing Wage Rates

II. Federal Prevailing Wages

Sample Design Work Template from Oregon DOT

MAJOR PROJECTS BRANCH

OTIA III STATEWIDE BRIDGE DELIVERY PROGRAM

DESIGN WORK ORDER CONTRACT (WOC) TEMPLATE

Statement of Work “SOW”—Design WOC 11-[XXX]

TABLE OF CONTENTS

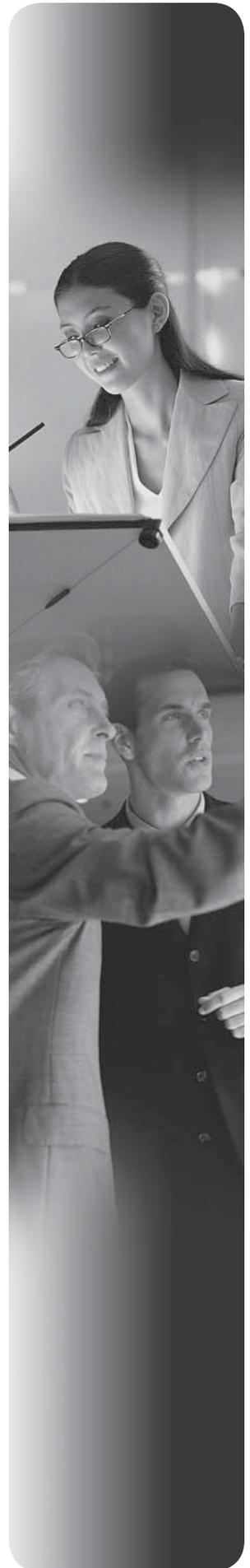
Overview	A.1
Background & Project Physical Descriptions	A.2
Project Phasing	A.2
General Assumptions	A.2
Bridge Specific Assumptions	A.2
Individual Project Statements of Work (SOW)	
#1 SOW—[Project Name]	A1.1
#2 SOW—[Project Name]	A2.1
#3 SOW—[Project Name]	A3.1
(Note: Additional Project SOWs to be listed here as needed and numbered accordingly)	
Contingency Tasks	A4.1

Overview

Contractor will subcontract to a pre-qualified A&E Prime Consultant the Statement of Work identified in this Design WOC #11-[XXX].

The purpose of this Design WOC is to perform Preliminary Engineering (“PE”) services necessary to develop the DAP and Final Design phases for [eighteen bridge rail retrofits and one (1) bridge replacement on Hwy 6 (I-84)].

The Design Acceptance Package (“DAP”) phase includes the execution of surveying, environmental services, geotechnical engineering, hydraulics and scour analysis, storm water analysis, pavement design, traffic analysis, preliminary bridge design, roadway design, railroad coordination, plans, cost estimates, identification of Right of Way (“ROW”) impacts within the limits of Agency defined work area (if any), utility coordination and public involvement necessary to develop the DAP.





The final DAP consists of design criteria, list of approved exceptions to design standards, preliminary cost estimates, and concept plans development with sufficient detail to make a definitive determination of: 1) a preferred preliminary design for development of Final Design, and 2) final ROW “footprint.” The schedule for tasks and deliverables is consolidated in a table in Exhibit B: Delivery Schedule.

The Final Design phase consists of completion of advanced (100% design) and final Plans, Specifications, and Estimate (“PS&E”) contract documents and bidding of the Bundle for construction. It also includes final environmental documentation and permitting.

Not included are the Post Design services (after award of the construction contract for the Bundle) which consists of periodic attendance at Bundle meetings including the pre-construction conference, shop drawing and submittal reviews, responding to Construction Contractor questions, load rating, final calculation books, and as-built drawings.

Background & Project Physical Descriptions

The Services under this Design WOC consists of completion of the DAP and Final Design phase for the following **[spell out the number of Projects]** (**[insert the number]**) structures on **[where located]**.

Bridge Name	M.P.	Br. No.	Work Scope	YearBuilt (NBI)
[Project Name]				
[Project Name]				
(*Complete and expand as needed)				

#1 **[Project Name]**

1. Six-span RCDG bridge: **[span description]**.
2. Bridge was built in **[date]** and **[repairs, widening upgrades]**.
3. Roadway width **[width]**.
4. **[Provide other short description of anticipated Services]**.

Project Phasing

The Services for this Bundle are divided into four (4) phases:

- Project Start-Up (Surveying, Mapping, and DAP SOW development)
- Final DAP (Development and Acceptance)
- Final Design (Includes Progress Plans, where applicable, and Advance Plans)
- Construction Bid Assistance

Contractor shall commence Project Start-Up Phase upon Agency issuance of a Notice to Proceed (“NTP”) for this Design WOC and will culminate upon submission of the Draft DAP package for acceptance. The DAP Phase will include the DAP Workshop (“DAW”) and culminate with Agency’s acceptance of the Final DAP. The Final Design phase will result in the completion of the Bid Documents, which include final PS&E documents. The Construction Bid Assistance will conclude with issuance of a Construction Contract by Agency for construction of the Bundle.

General Assumptions:

1. Contractor shall prepare one (1) contract package that will include all of Bundle [XXX] work.
2. (Insert as necessary)

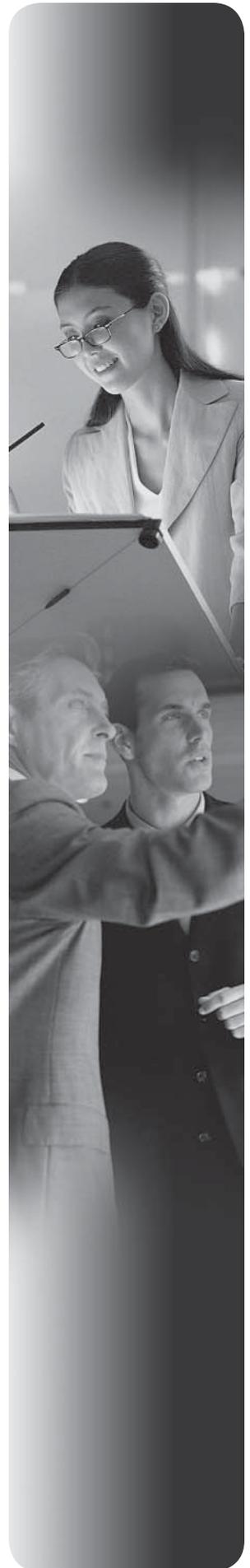
Bridge Specific Assumptions:

#1 [Project Name] (Bridge #)

1. (Insert as necessary)
- 2.

#2 [Project Name] (Bridge #)

1. (Insert as necessary)
- 2.





Excerpt, Scope Language Template from Oregon DOT

MAJOR PROJECTS BRANCH
OTIA III STATEWIDE BRIDGE DELIVERY PROGRAM
DESIGN WORK ORDER CONTRACT (WOC) TEMPLATE
Statement of Work “SOW”—Design WOC 11-[XXX]

1. STATEMENT OF WORK—[PROJECT NAME]

1.1 Project Management

1.1.1 Coordination

Contractor shall provide management, coordination and direction to the Project team (“PT”) to complete quality Project deliverables on time and within budget. Contractor shall schedule and supervise the Services identified in the SOW and maintain liaison and coordination with outside agencies. Contractor shall prepare a Project work plan. The Project work plan shall include Project instructions, schedules, deliverables and other elements of the Services identified in the SOW to be performed by Contractor.

1.1.2 Quality Plan

Contractor shall prepare a design quality plan (“DQP”) pursuant to and including identified elements listed in Section 9 of the Program Execution Plan (“PEP”) and Section 9 of the Program Procedures Manual (“PPM”). The DQP must be in conformance with Contractor’s quality program and address all elements of the Services identified in the SOW to be performed by Contractor.

1.1.3 Review Meetings

Contractor shall schedule review meetings. Scheduled review meetings shall include: kickoff and design acceptance workshop. The intent of these meetings shall be to present information to Agency and Stakeholders, and to resolve outstanding review comments. Contractor shall keep substantive meeting minutes of the proceedings including alternatives to explore and alternatives not carried forward. Where applicable, Contractor shall review all Projects within the Bundle at each of the review meetings.

1.1.4 Communications

Contractor shall develop a communications plan for communicating with any utilities, federal agencies, State agencies, and Native American Tribes (the “Tribes”) involved in the Project. All formal consultations with utilities, federal agencies, State agencies and Tribes will be conducted by Agency.

Contractor shall not contact Native American Tribes (the “Tribes”) directly without authorization from Agency. Contractor may contact government agencies as needed to identify and comply with local regulatory requirements and approvals.

1.1.5 Project Construction Cost Estimates and Construction Schedule

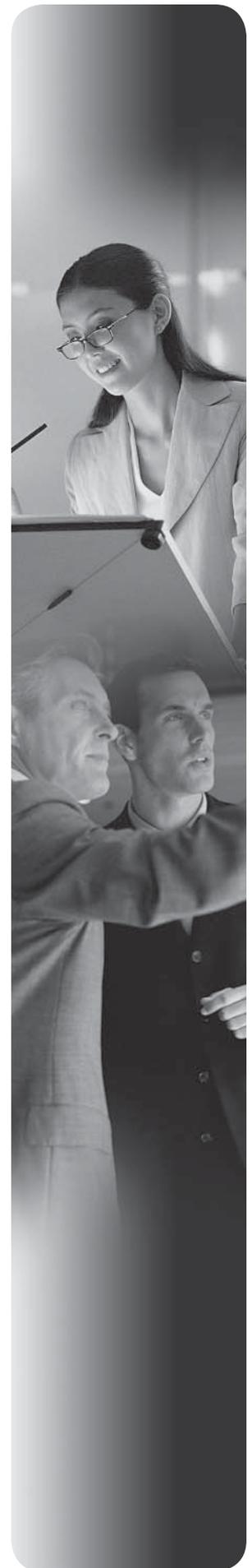
Contractor shall prepare and submit complete Project Construction Cost Estimates and Construction Schedules (CPM or GANTT) at various stages of Project development. Contractor shall develop these estimates and schedules based on Project specific information gathered by Contractor, and shall develop these estimates and schedules so that they are in conformance with Agency procedures for cost estimating identified at the following web site: <http://www.odot.state.or.us/tsspecs/>

The Project Construction Cost Estimate sheet shall conform to the format provided by Agency Bridge Section using the following link: <ftp://ftp.odot.state.or.us/Bridge/CostData/>

Project Construction Cost Estimates and Construction Schedules shall be independently prepared by Contractor and shall reflect unit costs prices that are current, specific to the location of the Project, and related to the complexity of the Project. Contractor shall develop, maintain, and submit to Agency, upon request, separate construction cost estimate backup information and related documentation for each type of Project funding, consistent with the level of development identified below. Contractor shall prepare and submit Project Construction Cost Estimates and Construction Schedules as identified by the following Plans, Specifications, and Estimate (“PS&E”) stages:

1.1.5.1 Design Acceptance Package—The Project Construction Cost Estimate shall be an “order of magnitude” estimate and the Construction Schedule shall be the estimated construction sequence duration by phase. Each alternative, comprised of significant pay items for all disciplines required by the Project, shall have its own Project construction cost estimate and schedule. The bridge “Type, Size and Location” (“TS&L”) cost estimate, for the viable alternatives considered, is based on preliminary quantity calculations. Preliminary estimating aids, such as established reinforcement-to-concrete volume ratios, superstructure depth to span ratios, or Contractor and industry design aid charts, may be used for the development of these quantities. For mobilization costs associated with all pay items, Contractor shall use ten percent (10%) of the base item costs. For contingency costs associated with all pay items, Contractor shall use twenty-five percent (25%) of the base item costs. For this and all subsequent phases, Contractor shall use the unit prices identified at the following website: http://www.oregon.gov/ODOT/HWY/ESTIMATING/bid_item_prices.shtml

1.1.5.2 Progress Plans—Submission of a revised Project Construction Cost Estimate shall not be required at this stage unless the sum of Project costs for the base pay items are anticipated to exceed by fifteen percent (15%) the value presented at the final DAP. When this is required, the Project Construction Cost Estimate shall include the bid item costs of the designed Project features and estimated costs for any remaining features yet to be designed. For mobilization costs associated with all pay items, Contractor shall use ten percent (10%) of the base item costs. For contingency costs associated with all pay items, Contractor shall use fifteen percent (15%) of the base item costs.





Submission of a revised Construction Schedule shall not be required at this stage. In the event that a unique item of work is required, Contractor shall provide a list of these items, along with justification for why this item of work is required. A unique item of work is defined as an item of work that is not contained in the ODOT Master Pay Item List on the date Contractor submits the final DAP to Agency.

- 1.1.5.3 **Advanced Plans**—Contractor shall submit a final Project Construction Cost Estimate and final Construction Schedule as part of the Advanced Plans submittal. The final Cost Estimate shall be determined based on a generation of Project-specific pay items that will be incorporated into the contract bid schedule. These pay items shall be consistent with the Advanced Plans, Project calculations, and measurement and payment clauses of the Project specifications. Contractor shall obtain Agency approval of all proposed unique items of work and associated pay items.

Contractor shall submit a checked set of quantity calculations and unit cost justification for each bridge, roadway, and temporary traffic control items of work. The unit cost justification shall cite the method and source from which they were derived. For mobilization and contingency costs associated with all pay items, Contractor shall use ten percent (10%) of the base item costs. For contingency costs associated with all pay items, Contractor shall use five percent (5%) of the base item costs. Contractor shall prepare the final Construction Schedule in sufficient detail to display the relationships between each anticipated type and phase of work. The schedule shall include events that occur between bid opening and Notice-to-Proceed (“NTP”), as well as the events that occur after NTP. Contractor shall clearly define intermediate construction milestone dates throughout the construction schedule, to assist in assessing the progress of construction. Along with the schedule, Contractor shall provide the source of construction production rates that are current and relevant to the Project.

- 1.1.5.4 **Final Plans, Specifications, and Estimate (“PS&E”)**—Contractor shall submit the “bid ready” [defined as that form acceptable to the ODOT Office of Specifications, Estimate, and Office of Pre-Let (“SEOPL”)] Project Construction Cost estimate and Construction schedule as part of the Final PS&E submittal. Any modifications made to the final Cost Estimate and final Construction Schedule shall be identified and resulting quantity calculations and cost justification backup shall also be submitted. Contractor shall obtain Agency approval of all unique pay items associated with the Project prior to Final PS&E deliverable, and, once approved, shall input those unique pay items into the Agency’s cost estimating system. Further, Contractor shall enter all Project Construction Cost Estimate data, including anticipated items, contingency and mobilization, and engineering costs into the Agency’s cost estimating system. Contractor shall submit to Agency, as part of the Final PS&E deliverable, a paper copy of the bid list produced by the Agency’s cost estimating system.

1.1.6 Project Files

Contractor shall maintain Project files so that they include the Design WOC pertaining to the Project, and all Project test results, survey files, engineering computations, assumptions, working drawings, meeting minutes, correspondence, memos, transmittals, notes and other written materials generated in the course of performing the Services identified in the SOW for the Project. Contractor's compiling of Project files shall be an ongoing task, commencing upon receipt of NTP from Agency, incorporating documents as they are generated, and continuing through completion and acceptance of the Project design by Agency. Project files shall be available for review by Agency at Contractor's office. Project files shall be submitted to Agency within thirty (30) calendar days of request, or thirty (30) days following completion and acceptance of the Work by Agency.

1.1.7 [Reserved]

1.1.8 Specifications ("Special Provisions")

Contractor shall prepare and submit Special Provisions for this Project and the Bundle of which it is a part, in conformance with the current version of the ODOT Specifications Manual as posted on the following web site: <http://www.odot.state.or.us/tsspeccs/index.htm>.

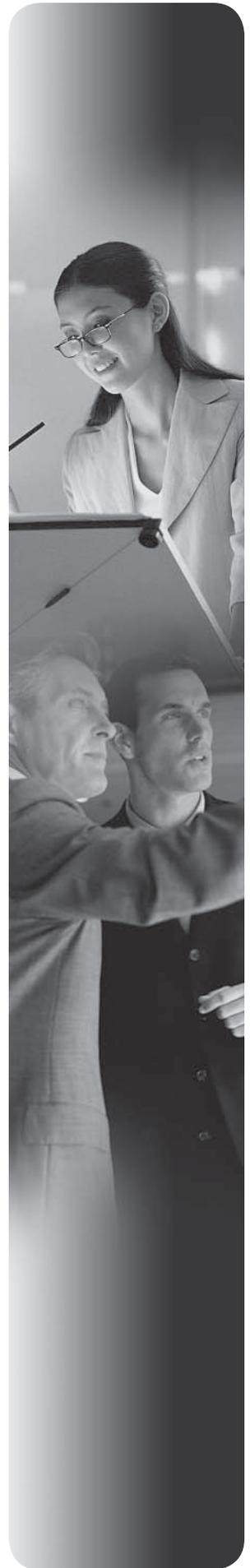
There is a template for these Special Provisions that has been reviewed and approved by the Oregon Department of Justice ("DOJ") on the ODOT Web site at: <http://www.oregon.gov/ODOT/HWY/SPECCS/updates.shtml>.

This template is updated periodically by the ODOT Specification Unit and the most recent version of the template must be used by Contractor as the basis of the Special Provisions for this Project and the Bundle of which it is a part. Contractor may make modifications, edits, additions or other changes to the current Special Provisions template in order to create the Special Provisions that are unique and appropriate for this Project and the Bundle of which it is a part. Instructions for preparation of the Special Provisions are in the User's Guide to PS&E Delivery on the ODOT Web site at: http://www.oregon.gov/ODOT/HWY/SPECCS/manuals_forms_etc.shtml#Guides.

Contractor shall make every effort to compose the Special Provisions of the bid items that are currently accepted by ODOT. Contractor shall prepare and submit Special Provisions for the Project according to the following PS&E stage requirements:

1.1.8.1 Start-Up Tasks—No submittal is required for this stage.

1.1.8.2 Design Acceptance package—Contractor shall prepare a list of all anticipated Project-specific specification needs anticipated in the Project.





1.1.8.3 Progress Plans—Contractor shall prepare a draft list of applicable Special Provisions for the Project, unless indicated otherwise in Section 1.2 through 13.15 of this SOW. The list must include all sections of the current template Special Provisions that must be edited for the Project, as well as any Special Provisions that do not already exist in the current template. The current list of template Special Provisions is available at the following link:

<http://www.odot.state.or.us/tsspecs/02specials/000/02%20SPLIST.doc>

Prior to writing any proposed Special Provisions that utilize bid items that do not already exist in the current template, Contractor must consult with ODOT Specifications Unit for guidance in drafting the Special Provisions (which will occur in the Advanced Plans stage of the process).

1.1.8.4 Advanced Plans—Contractor shall prepare the Special Provisions for the Project, and amend the completed Special Provisions as necessary, in accordance with the ODOT Specifications Manual. All Special Provisions must include correct quantities, where appropriate, and must be consistent with the Project Construction Cost Estimate. Contractor shall give special attention to work schedule, traffic and construction staging, CS3, utility coordination, and community events.

1.1.8.5 Final Plans, Specification, and Estimate—Contractor shall modify the Advance Plans version of the Special Provisions as necessary to prepare and submit to Agency the Final Special Provisions that meet the requirements of the ODOT Specifications Manual.

1.1.8.6 Contractor shall sign and seal specifications (the “Special Provisions”) that it has prepared in accordance with TSB10-B-001 “Interim Requirements for Professional Stamping of Project Special Provisions” pending complete update of ODOT Policy DES 05-02.

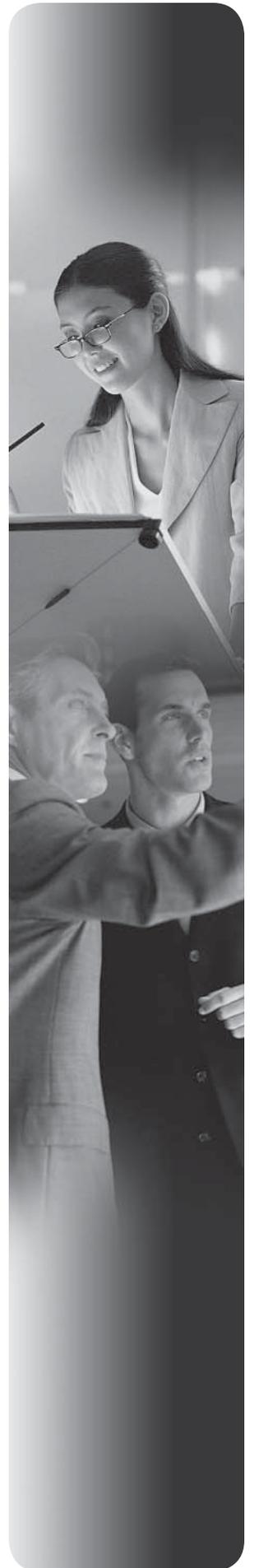
1.2 Survey, Mapping, and Right-of-Way Engineering

Contractor shall perform surveying activities for the Project and produce mapping products for the Project under the responsible charge of a Professional Land Surveyor holding a valid certificate to practice in the State of Oregon per ORS 672.002 to 672.325, and in conformance with the current guidance documents on the ODOT Geometronics web site at:

<http://www.oregon.gov/ODOT/HWY/GEOMETRONICS/StandardsAndSpecs.shtml>, specifically:

- Horizontal Control, Recovery, and Retracement Surveys
- Right-of-Way Monumentation Survey Standards
- ODOT R/W Monumentation Policy
- Basemap Standards

- Route Surveying Manual
- Contractor shall prepare legal descriptions, addenda, Right of Way Drawings, and sketch maps for the Project, according to content and drafting standards of the ODOT—Geometrics Right of Way Engineering Manual available at the following link....



APPENDIX D

Consultant Evaluations

Most states have the agency's project manager evaluate the performance of the consultants doing work for them. Periodic written evaluations regarding the consultant's performance should be provided. The evaluations give the consultant a written record of performance. Some states provide interim evaluations resulting in constructive feedback, encouraging communication and bringing about continuous improvement. These evaluations may also be used as an element in the process of future consultant selections. Examples of consultant evaluations used in several states follow:





Sample Consultant Evaluation from South Carolina DOT

Construction Related Comments Attached: _____

SCDOT Semi- Annual (April 1st and October 1st) Consultant Performance Evaluation			
Consultant Name: _____			
Consultant Project Manager's Name: _____			
SCDOT Contract Number: _____			
File #:		Pin#:	Project #:
Project Description: _____			
Project Services: _____			
Project Activities Being Evaluated: _____			
Time Period of Evaluation: _____			
Interim Evaluation Number: _____		Final Evaluation: _____	

Performance Criteria	Performance Weight	Performance Score (*)	Weighted Score
Schedule Milestones (1)	20%		0%
Quality (2)	20%		0%
Responsiveness (3)	10%		0%
Budget (4)	15%		0%
Contract Modifications (5)	10%		0%
DBE Utilization (6)	10%		0%
SCDOT Satisfaction (7)	15%		0%
Total	100%		0%

* Performance Assessment	Score
Consistently Exceeds Expectations	5
Occasionally Exceeds Expectations	4
Consistently Meets Expectations	3
Occasionally Fails to Meet Expectations	2
Consistently Fails to Meet Expectations	1

Performance Scoring Explanation
1. Did Consultant Meet Schedules?
2. Did Consultant produce quality products or were products returned for corrections?
3. Was Consultant responsive in corrections or other requests of SCDOT?
4. Was work performed to budget?
5. Were contract modifications to the Basic Agreement or additional contract modification to original "on call" contract modifications required due to oversights of the consultant?
6. Did consultant use DBE's as agreed in contract?
7. What was the overall SCDOT satisfaction with the consultant?

Signature Area	
Project Manager: _____	Consultant: _____
Signature: _____	Signature: _____
Date: _____	Date: _____

(Project Manager, Consultant Comments and Instructions for completing this form are on the reverse side)

**SCDOT
Semi-Annual
Consultant Performance Evaluation
Instructions**

1. Project Manager will evaluate consultant on April 1st and October 1st and at completion of contract.
2. Project Manager will discuss evaluation with consultant and allow for written response.
3. Project Manager will submit the completed form to the Director of Contract Audit Services.
4. Director of Contract Audit Services will prepare a summary report Semi-Annually to the Executive Director, State Highway Engineer, and all Director's of Engineering. The report will note any firm receiving a Performance Score of "1" in any Criteria and any firm with a total weighted score of 250 or less. A copy of the above evaluations will be attached to the Semi-Annual Report.
5. It shall be the responsibility of the appropriate Director of Engineering to assure all reports are submitted to the Director of Contract Audit Services in a timely manner.
6. Error/Omission or other claims and problems found during construction will be noted and attached to the final evaluation form. The claims and/or problems will be discussed with the Consultant by the Project Manager and documented as an attachment to the final evaluation form.

Project Manager Comments:

Consultant Comments:





Sample Consultant Evaluation from Virginia DOT

AS-415F 04MAY18	COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION CONSULTANT PERFORMANCE REPORT		
Prime:	Sub:	Date:	
Type of Report:	Interim:	Post Design:	Post Construction:
Consultant:			
Address:			
Project Manager:		Discipline Manager:	
VDOT Project Manager:		Division/District:	
Route:	City/County:	Project No:	
Description of Work:			
Contract Value: \$		Date Contract Completed:	
DBE or WBE Goal for Contract: %		Category of Consultant Work (A, B, C, or D):	
A - On-Call Surveying Contracts			
STATUS REPORT:			
1. Estimated total percent of contacted completed:		%	
2. Tasks completed or underway at this site:			
3. Estimated percent of contract to be done by DBE or WBE:		%	
Rating Points for Individual Items and Overall Score:			
Exceptional..... 5			
Exceeds Expectations..... 4			
Meets Expectations..... 3			
Needs Improvement..... 2			
Poor..... 1			
Not Applicable NA			
<i>Note: Any rating less than 3 requires appropriate comment. Comments supporting all ratings should be given. The rating must be reviewed with the consultant. Scores may be given in tenths of a point. A score of 3 indicates the consultant meets the terms and conditions of the contract. A score of 5 would indicate that the consultant has far exceeded what is normally expected. Ratings shall be based on facts and documentation and not personal prejudices.</i>			
I. ATTITUDE AND COOPERATION:			RATING
1. Cooperation with VDOT			
2. Cooperation with other agencies, firms, cities, etc.			
3. Attitude toward public			
4. Attitude toward work			
5. Application of Specifications and Standards			
6. Scope of work and terms of Agreement followed			
II. ORGANIZATION AND MANAGEMENT:			RATING
1. Adequacy of personnel			
2. Quality/ability of personnel			
3. Adequacy of supervision and management			
4. Quality/ability of supervision and management			
III. UTILIZATION OF DBE/WBE/SUBCONSULTANTS:			RATING
1. Assignment of tasks as agreed			
2. Coordination with Prime/Subconsultant			

IV. WORK PERFORMANCE:

RATING

1. Initiation of work in a timely manner	
2. Diligent prosecution of work	
3. Completion of work on time and within budget	
4. Response to review comments	
5. Completeness of interim/final submissions	
6. Overall quality of interim/final submissions	

V. OVERALL RATING FOR FIRM (Total Score Divided By Number of Items Rated):

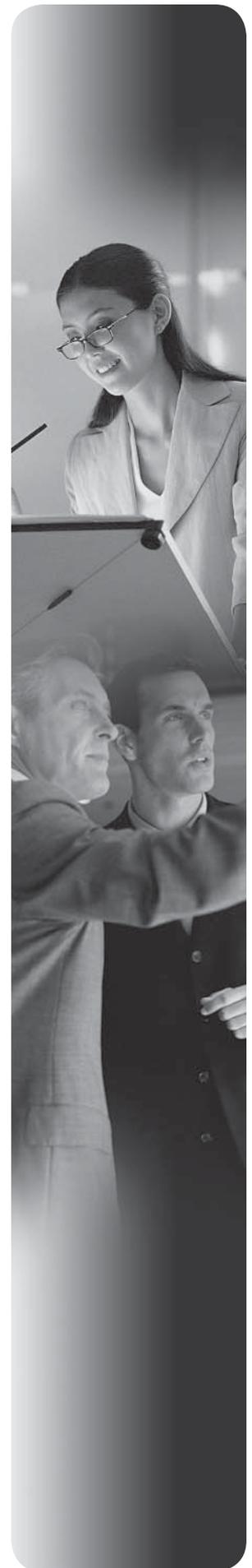
VI. VDOT REMARKS/COMMENTS:

VII. CONSULTANTS REMARKS/COMMENTS:

	Printed Name	Signature	Date
Reviewer:			
Consultant*:			
Div/Dist Admin:			
Adm. Serv. Div:			

Original signed copy to: Administrative Services Division
 Copy to: Division/District Administrator, Chairman, Consultant Coordinating Committee

* Indicates that scores have been discussed with VDOT. Does not indicate that you necessarily agree with the scores shown. Additional remarks/comments may be attached. Form to be signed in the office manager or principal in the firm. CONSULTANT RETAINS A COPY WHEN SIGNING.





Sample Consultant Evaluation from California DOT

ADM 2031 (REV 12/2001)

Page 1 of 5

A & E CONSULTANT PERFORMANCE EVALUATION REPORT INSTRUCTIONS AND WORKSHEET

GUIDELINES FOR COMPLETING THE ADM 2031

The Code of Federal Regulations, 23 CFR Part 172.13 (b) requires that, at the end of a contract, the State's employee who is responsible for the contract evaluate the consultant's performance. This regulation applies only to the prime consultant performing work under the contract. The evaluation should include, but not be limited to, such items as timely completion of work, conformance with contract cost and the quality of work.

Evaluation of consultant's performance shall be documented on the A&E Consultant Evaluation Report form (ADM 2031). Evaluation of the Prime consultant's performance is the responsibility of the current contract manager. It is permissible for any former contract managers (of the contract) to contribute to the report.

The contract manager must complete an evaluation of consultant's performance, within thirty (30) days of: 1) Completion of the contract work or, 2) Contract termination

A copy of the completed evaluation report is to be sent directly to the consultant being evaluated. The consultant shall be advised that it has fifteen (15) working days from the date of the evaluation to provide written comments directly back to the contract manager. The consultant should be told that their comments should be limited to no more than two (2) pages. Comments, if submitted within the fifteen (15) working day limit, will be attached to the A&E Consultant Evaluation Report. Comments received from the Consultant after the fifteen (15) working day limit should be returned to the consultant.

The contract manager should have documentation to support either a negative and/or positive evaluation. The documentation is kept with the project manager's working contract file and not attached to the ADM 2031 that is forwarded to Division of Procurement and Contracts (DPAC). The contract manager should keep a copy of the Evaluation Report and the consultant's comments. If the contract manager wants to note a specific employee by name, that is permitted; however, documentation is essential to support comments concerning individual employees.

A copy of the evaluation report and corresponding consultant's comments shall be sent to Division of Procurement and Contracts, Attn: Policy Branch, Farmers Market III, MS 67. A&E Consultant Evaluation Reports will be maintained in DPAC.

A&E CONSULTANT PERFORMANCE EVALUATION REPORT
INSTRUCTIONS AND WORKSHEET

FORWARD THE COMPLETED ADM 2031, CONSULTANT'S COMMENTS (IF APPLICABLE), AND THIS SHEET TO:

DEPARTMENT OF TRANSPORTATION
DIVISION OF PROCUREMENT & CONTRACTS, MS-67
ATTN: POLICY BRANCH
1727 - 30TH STREET
SACRAMENTO, CA 95816-7005

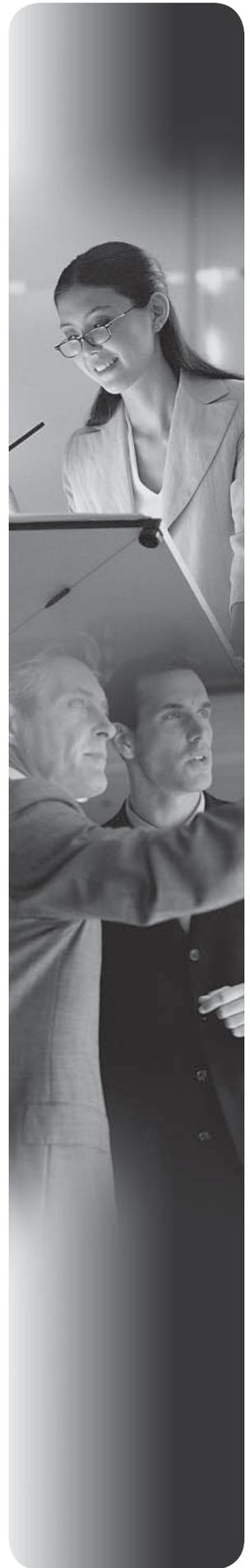
Contract Manager should **complete and return** the information below with the Evaluation Report and Consultant's comments.

Copy of the Evaluation Report was sent to the Consultant on (date): ____ / ____ / ____

Consultant provided written comments: YES NO
(If checked "yes" provide a copy of consultant's comments with this report)

I have been the Contract Manager for the entire term of the contract: YES NO

If checked "No" provide the date you started managing contract: ____ / ____ / ____



A&E CONSULTANT PERFORMANCE EVALUATION REPORT
INSTRUCTIONS AND WORKSHEET

RATING CRITERIA AND POSSIBLE POINTS FOR EACH CRITERION
A TOTAL OF 100 POSSIBLE POINTS FOR OVERALL RATING

A. COOPERATION & COMMUNICATION - Maximum of 20 points

- 20-19 The Consultant answered correspondence as requested. There were no surprises. Excellent working relationships were maintained throughout term of contract. Consultant satisfied all requests. The team was always well prepared, flexible, and open to suggestions.
- 18-17 Same as above except to a lesser extent.
- 16-14 Correspondence answered promptly most of the time. Reasonably willing to change when persuaded. Consultant listened well.
- 13-12 Same as above except to a lesser extent.
- 10- 0 Consultant did not return calls, resisted changes, and argued obstinately. Team was not prepared. Major disputes solved through formal dispute resolution process.

B. DELIVERABLES - Maximum of 40 points

B1. Quality - 10 points possible

- 10-9 No deliverables were resubmitted. No review comments for 100% PS&E. (100% PS&E was accepted as first submitted)
- 8-7 Minimal corrections were required for some deliverables.
- 6-4 Review comments resolved during the first round of review.
- 3-2 Review comments were resolved during the second/third round of review.
- 1-0 Repeatedly and consistently resubmitted Deliverables.

B2. Completeness of contract records - 10 points possible

- 10-9 Records were available upon request. All records turned in and correct.
- 8-7 Records were usually available upon request.
- 6-4 Sometimes records missing, however they were always available in reasonable time.
- 3-2 Sometimes records were missing and had too repeatedly requests the records.
- 1-0 Records lost, or missing, rarely available when requested.

B3. Timeliness - 10 points possible

- 10-9 Sometimes early, always on time.
- 8-7 Always on time.
- 6-4 Usually on time.
- 3-2 Sometimes late
- 1-0 Consistently late

A&E CONSULTANT PERFORMANCE EVALUATION REPORT
INSTRUCTIONS AND WORKSHEET

RATING CRITERIA AND POSSIBLE POINTS FOR EACH CRITERION
A TOTAL OF 100 POSSIBLE POINTS FOR OVERALL RATING

B4. Within Budget - 10 points possible

- 10-9 Always within budget, and sometimes under budget
- 8-7 Always within budget
- 6-4 Usually within budget
- 3-2 Frequently over budget.
- 1-0 Consistently over budget

C. BILLING - Maximum of 10 points

C1. Timeliness - 5 points possible

- 10-9 Always on time, sometimes early
- 8-7 Almost always on time.
- 6-4 Invoiced on time
- 3-2 Several invoices were late.
- 1-0 Consistently late

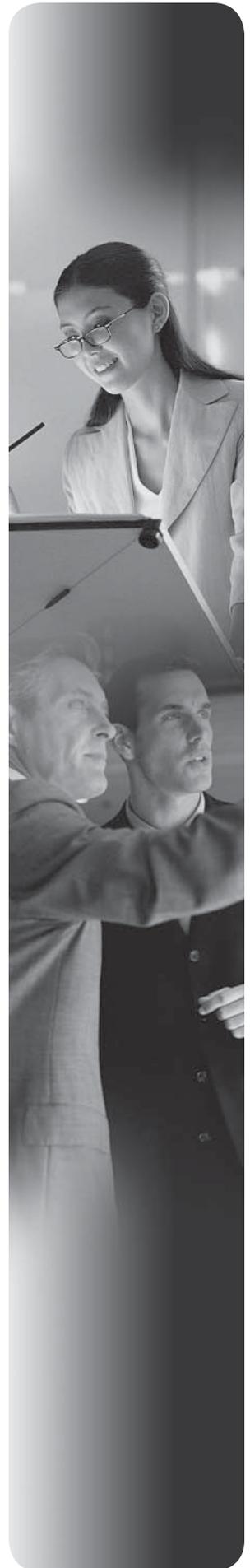
C2. Accuracy - 5 points possible

- 10-9 No disputed invoices
- 8-7 Few disputed invoices
- 6-4 Invoices rarely disputed
- 3-2 Majority of invoices were disputed
- 1-0 Consultant billed for inappropriate work. Consistently did not prepare invoices per current Caltrans billing practices.

D. CONSULTANT PERSONNEL - Maximum of 20 points

D1. Project Manager - 10 points possible

- 10-9 Took initiative, was creative. Conducted presentations and team professionally. Consistently anticipated potential problems, and solved them. Prepared the team for contingencies. Consistently decisive, delegated efficiently.
- 8-7 Same as above except to a lesser extent.
- 6-4 Had occasional unanticipated problems. Resolved issues and learned from mistakes. Made decisions. Conducted presentations and team competently.
- 3-2 Same as above except to a lesser extent.
- 1-0 Unsolved issues remain. Frequent team mistakes, e.g. unorganized-resulting in duplication of effort, and extraneous work. Lack of cohesive teamwork.



A&E CONSULTANT PERFORMANCE EVALUATION REPORT
INSTRUCTIONS AND WORKSHEET

RATING CRITERIA AND POSSIBLE POINTS FOR EACH CRITERION
A TOTAL OF 100 POSSIBLE POINTS FOR OVERALL RATING

D2. Technical Performance - 10 points possible

10-9 Easily reached technical consensus in Strategy Meetings. Calculations and presentations were per current Engineering Practices. Offered creative alternatives.

8-7 Same as above except to a lesser extent.

6-4 Adequately documented supportable technical assumptions for strategy, designs, and reports. Few revisions needed.

3-2 Same as above except to a lesser extent.

1-0 Consistently could not defend, or justify strategy and/or design, routinely needed revisions. Calculations not per current Engineering practices. PS&E revisions consistently needed.

E. DBE/DVBE Participation - Maximum of 10 points

10-9 Exceeded Goals

8-7 Met Goals

6-4 Achieved goals, or performed diligent search for DBE/DVBE firms but was unable to achieve goals.

3-2 Same as above except to a lesser extent.

1-0 Did not achieve goals and no effort was made to achieve goals.



A&E CONSULTANT EVALUATION REPORT

ADM 2031 (REV 12/2001)

Contract No.

Date: ____/____/____

CONSULTANT INFORMATION:

Name of Prime Consultant: _____

Project Manager of Evaluated Firm: _____

Contract Begin Date: ____/____/____

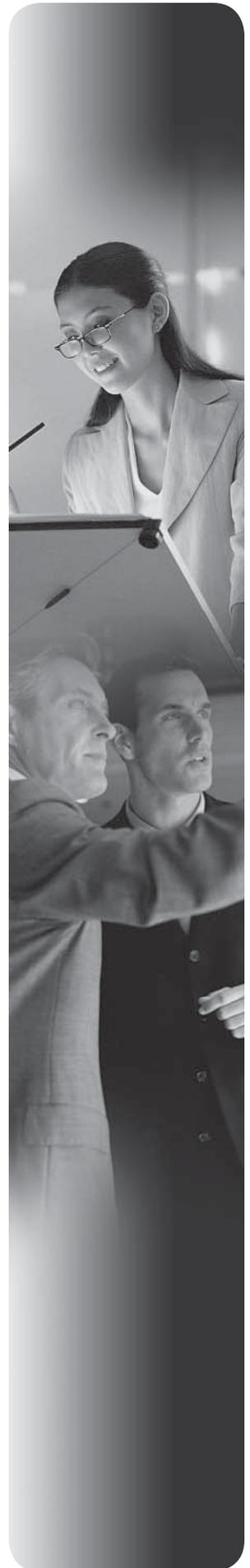
Contract Expiration Date: ____/____/____

Total Contract Amount (including Amendments): _____

CONTRACT INFORMATION:

Contract General Description of Work

Brief Description of Work Performed by Evaluated Consultant:





A & E CONSULTANT EVALUATION REPORT (CON'T)

ADM 2031 (REV 12/2001)

Rating Scale: Excellent = (10-9) Above Average = (8-7) Average = (6-4)
 Improvement Needed = (3-2) Unsatisfactory = (1-0)

Ratings Of Excellent, Improvement Needed And Unsatisfactory Require a Brief Explanation of the Rating

A. COOPERATION (10 points) & COMMUNICATION (10 points)	20 POINTS	
B. DELIVERABLES		
1. Quality	10 POINTS	
2. Completeness of contract records	10 POINTS	
3. Timeliness	10 POINTS	
4. Within budget	10 POINTS	
C. BILLING		
1. Timeliness	5 POINTS	
2. Accuracy	5 POINTS	
D. CONSULTANT PERSONNEL		
1. Project management	10 POINTS	
2. Technical performance	10 POINTS	
E. D/DVBE PARTICIPATION	10 POINTS	
TOTAL POINTS	100 POSSIBLE	

RATING COMMENTS:

GENERAL INFORMATION:

Current Contract Manager: _____
 (Print Name)

Signature: _____

Phone #: _____

Prior Contract Manager had input on the Evaluation Report: YES (include name below) NO

Prior Contract Manager (if the individual had input): _____
 (Print Name)

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 653-3657 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS - 89, Sacramento, CA 95814.

APPENDIX E

Training for Agency Staff

Agencies need to provide training to their staff that contract for, select and manage consultants. Here are some typical goals statements for this training.

Project Procurement Management

The purpose of this course is to enable project managers and other project team members to learn how to procure and administer external resources for highway projects. At the end of this course, participants will understand and be able to apply the Project Management Institute's six standard procurement processes: plan purchases and acquisitions, plan contracting, request seller responses, select sellers, contract administration and contract closure.

Procuring an Architectural and Engineering (A&E) Contract

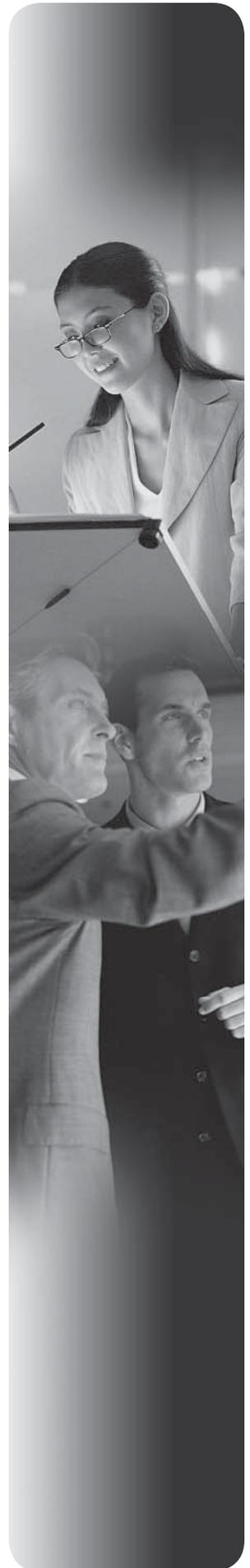
This course covers what is needed to initiate and complete the A&E contract procurement processes. Topics include: processes involved in initiating an A&E contract, contract manager responsibilities in these processes, time frames, types of A&E contracts, types of A&E payment processes, A&E selection committees and A&E negotiations.

Architectural and Engineering (A&E) Contract Cost Negotiation

The course covers what is needed to reach an agreement using effective negotiation skills as they relate to A&E contracts. Topics include: theory and practice of negotiating, developing the skills of effective negotiators, planning for negotiations, identifying obstacles that may be encountered during negotiations, barriers to effective communication, and participating in mutual agreements.

Architectural and Engineering (A&E) Contract Management

This course is intended for contract managers. The purpose of this course is to provide an overview of the A&E contract management process. The course starts with a short review of the A&E selection process as it relates to contract management. The course continues with an overview of the steps involved in the contract management (CM) process. The CM process consists of planning for contract management, monitoring consultant performance, conducting meetings, review of progress reports, processing invoices, importance of files and records keeping, issuing contract amendments, resolving disputes, need for post-award audits, review of terminations, importance of consultant performance evaluation and performing contract close-out.





Overall Project Development and Specialty Training

To have a successful relationship with the consultant who serves the needs of a transportation agency, both the consultant staff and the agency staff need a working knowledge of the overall project development process. Training should include topics such as:

- Understanding the project development activities, the project activities network and the relationship to project schedule.
- Understanding the factors that influence schedule
- Relating typical Project Development activities to the critical path for project development.
- Understanding how climate, construction seasons, environmental restrictions may impact project development and the related schedules.
- Understanding the responsibilities of the consultant and those of the agency personnel. Identifying who will be responsible for specific functions, who initiates the action, reviews it or approves it.
- The responsibility Assignment Matrix.
- Information and data need—Who has the data and how can it be obtained?
- Agency resources—Who is responsible for what and how to appropriately coordinate to utilize these resources?
- Understanding of standard drawings, their applications and their appropriate use.
- Quality assurance and quality control—Expectations for how to deal with errors and omissions.
- Understanding the roles of lead, cooperating, participating and coordinating agencies.
- Understanding the relationship to the environmental processes.
- Permitting and Documentation roles and responsibilities.
- The fundamentals of geometric design, bridge design, traffic engineering and hydraulics.
- Understanding the transportation agency design manuals and plan format requirements.
- Design criteria and their application