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Department of Transportation

Professional Services Contract Manager Development and Certification Strategy

SPR 696

Final Report

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16. Abstract <p>SCDOT hires many consultants to provide professional services in support of its planning, design, construction and maintenance projects. SCDOT personnel responsible for procuring and administering these professional service contracts, especially Contract Managers, have received no formal training and are provided with few official references. SCDOT also felt a need for a comparative analysis of state DOTs' policies and practices to identify deficiencies and opportunities to improve SCDOT's current professional service contracts procurement and administrative practices.</p> <p>In order to address SCDOT's needs for formal procurement and administrative training as well as a comparative analysis of state DOTs' policies and procedures, the objectives of this project were as follows: 1) Identify current SCDOT contract management policies and practices, 2) Evaluate policies and practices of other DOTs regarding professional services contract management, 3) Develop formal training material for SCDOT Contract Managers, 4) Develop and recommend "Best Practices" for SCDOT and identify opportunities for improvements in professional services contract management.</p> <p>These objectives were met by first studying and outlining SCDOT's current procurement and administration practices and processes. To conduct the comparative analysis, seven southern state DOTs' policies and practices were studied through a comprehensive literature review, state specific paper surveys, and personnel interviews. Best Practices were identified and recommendations for SCDOT were developed. A SCDOT training manual was created by studying SCDOT policy and process documents, and conducting interviews with SCDOT personnel. The manual was reviewed and validated during a pilot training session with SCDOT contract managers and the project steering committee.</p> <p>Five recommendations are made to SCDOT to continue the improvement of the professional services procurement and administrative practices and policies: 1) SCDOT should assign responsibility of the training material to the Chief Procurement Officer, 2) SCDOT decision makers should review the Best Practices and reference the document to guide the evolution of procurement and administration processes and policies, 3) SCDOT should hold an annual or bi-annual training session for current Contract Managers to review current practices, address issues, and implement changes, 4) SCDOT should break down the training material into subject specific sections and develop 15-20 modules that can be accessed online by Contract Managers, 5) SCDOT should develop a certification program for Contract Managers utilizing the online modules.</p>			
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TABLE OF CONTENTS

INTRODUCTION	2
PROCEDURES	4
Training Manual	4
Best Practices	5
Training Sessions	9
FINDINGS	11
Best Practices	11
Training Manual	11
Training Session.....	12
Training Session Evaluation	12
RECOMMENDATIONS	15
REFERENCES.....	17
ATTACHMENTS	18

INTRODUCTION

SCDOT hires many consultants to provide professional services in support of its planning, design, construction and maintenance projects. In 2009 and 2010, SCDOT paid consultants over \$43 million for professional services. Despite this value of work executed by consultants, SCDOT personnel responsible for procuring and administering these professional service contracts, especially Contract Managers, have received no formal training and are provided with few official references. Mostly on-the-job training is utilized for employees to learn the procurement and administration process, practices and expectations. Typically, Federal funds are involved in the consultant contracts and the potential for a violation of the federal code is high. In addition, beyond the federal code, SCDOT employees have a responsibility to the public to administer State funds in the most responsible and efficient manner. Thus, there is an essential need for formal training of SCDOT personnel on professional services contract procurement and management.

The current lack of training and sufficient references has created a procurement and administration process that has become inefficient and inconsistent throughout SCDOT. As a public agency, SCDOT's activities related to contracts must be efficient and fair. Therefore, SCDOT felt a need for a comparative analysis to identify deficiencies and opportunities to improve SCDOT's current professional service contracts procurement and administration practices. To meet this need, a thorough analysis was required to compare SCDOT professional services business practices with similar practices in other states.

In order to address SCDOT's needs for formal procurement and administration training as well as a comparative analysis of state DOTs' policies and procedures, the objectives of this project were as follows:

- Identify current SCDOT contract management policies and practices,
- Evaluate policies and practices of other DOTs regarding professional services contract management and the role of a contract manager in each phase (procurement, types of contracts used, negotiation, administration/management, and contract closeout),
- Develop formal training material for SCDOT Contract Managers,
- Develop and recommend "Best Practices" for SCDOT regarding professional services contract management, and identify opportunities for improvements in professional services contract management.

These objectives were met by first studying and outlining SCDOT's current procurement and administration practices and process. To conduct the comparative analysis, seven southern state DOTs' policies and practices were studied through a comprehensive literature review, state specific questionnaires, and personnel interviews. Best Practices were identified by analyzing the material collected and recommendations for SCDOT were developed based on the issues identified in the review of SCDOT's current process and practices. A training manual was created by studying SCDOT policy and process documents, and conducting 13 interviews with SCDOT personnel. The manual was reviewed

and validated by the project steering committee and further validated during a pilot training session with SCDOT contract managers and the project steering committee.

The purpose of the training manual is to detail the procedures and responsibilities of the SCDOT Contract Managers associated with professional services consultant contracts. The manual is intended to provide consistency across the Department in following procedures, defining responsibilities, and ensuring policies are met in regards to procurement and administration of consultant contracts. In addition, the manual is to serve as a training resource for new contract managers.

The Best Practices were written at a high level in order to be applicable to other state DOTs that have various organizational structures, personnel, volumes of work, and legal environments. To aid SCDOT in applying the Best Practices, the current practices were identified and specific recommendations for improvement were made.

The training session was developed in order to present the training material to a large audience that incorporated upper management personnel in a setting that would be conducive to discussions and questions and that would ultimately be more effective than simply distributing a manual. A pilot session was conducted in order to obtain feedback on the training material from a broad group of experienced personnel. In the future, SCDOT will periodically hold the training which can further serve as an instrument for implementing change as well as educating personnel.

Figure 1 shows an overview of the method employed in conducting this study, which is discussed in detail in the Procedures section of this report. The project consisted of two main deliverables, the Best Practices and SCDOT training, both of which began with the exploration and understanding of SCDOT's current policies, and practices.

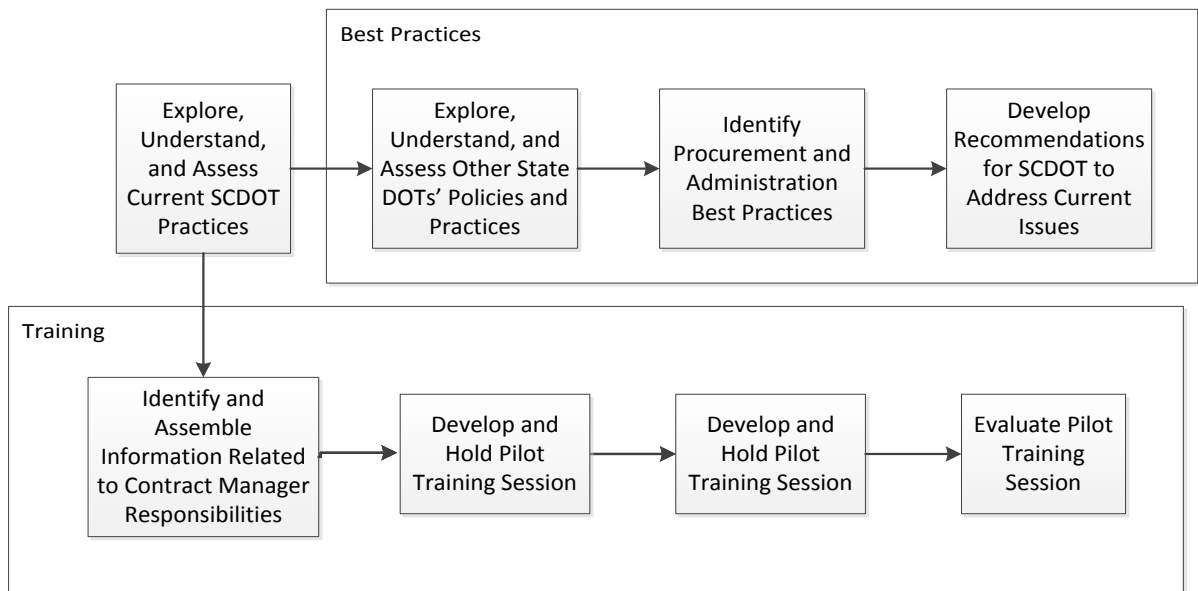


Figure 1: Overview of Study Method

PROCEDURES

This section discusses how the major deliverables of the project were developed in order to meet the objectives of the project. This section is divided into procedures for each deliverable which are: The Training Manual, The Best Practices, and The Training Session. The Best Practices were developed based on the information obtained from seven southeastern state DOT's on their procurement and administration of professional service contracts. The Training Manual and Training Session were products of the work conducted with SCDOT on the current professional service contract practices.

Training Manual

The training manual was developed by first exploring and understanding SCDOT's current processes, and practices for procuring and administering professional services contracts. This understanding began by reviewing policy documents including Departmental Directive 41 (DD41) which explains SCDOT's procurement and administration practices for professional service contracts. Other documents reviewed included Federal policies, SCDOT procurement and administration example documents, Legislative Audit reports as well as documents from past efforts to address related issues. While the documents reviewed lacked detail and specifics in many areas, they provided a basic understanding of the procurement and administration practices and some detail regarding personnel responsibilities.

Identifying and defining the responsibilities of the Contract Manager was critical to meet the objectives of the project. However, existing documentation related to procurement and administration did not provide sufficient detail on the Contract Manager's specific role, partly because it is not a stand-alone job title or individual position but rather a "hat" personnel wear when managing contracts. In order to obtain the details of the role and responsibilities of the Contract Manager and further understand the processes and policies, interviews were conducted with SCDOT personnel involved in all aspects of the procurement and administration of professional service contracts. These interviews were conducted with the following personnel (some of which serve as contract managers):

- Assistant Contract Counsel
- Chief Procurement Officer
- Assistant Chief Engineer of Planning, Location, & Design
- Director of Construction
- Construction Scheduling Engineer
- Assistant Road Construction Engineer
- Regional Production Engineer
- Regional Design Engineer
- Program Manager
- Survey Manager
- Regional Geotechnical Design Engineer
- Environmental Manager
- Permits Manager
- NEPA Manager

- Professional Services Manager
- Contract Manager for Negotiations

With the information collected from SCDOT materials and interviews with personnel, a structure was developed to organize the information into a training manual. The structure of the training manual reflects the chronological life of a contract, starting with procurement and moving into administration. The training manual consists of excerpts from DD41, further discussions of the procedures and tips and recommendations on specific procedures for contract managers. The discussions in the manual are the product of the interviews with SCDOT personnel and review of SCDOT material. The tips and recommendations are in response to issues identified by SCDOT personnel and also include general recommendations related to contract management.

Once the training manual was drafted, it was reviewed and critiqued in hardcopy form by the individual members of the steering committee. A pre-pilot training session was then held with the steering committee which consisted of a dry run of the training presentation by the Clemson team. This pre-pilot training session was held in order to rehearse, deliver and validate the content, and receive final comments from the committee. Content, format and structure were then reviewed and finalized by the Clemson team before the pilot training session was held. Additional revisions were made to the Training Manual and presentation to reflect feedback collected during the pilot training session. Detailed procedures on the training session are discussed in the Training Session sub-section of this Procedures section.

Best Practices

One objective of this study was to identify Best Practices for procurement and management of professional services contracts. To accomplish that objective the following research methodology was utilized for data collection and analysis. Figure 2 outlines the Best Practices study methodology which is further detailed in this section. The methodology consists of two main steps-three phase data collection, and data analysis.

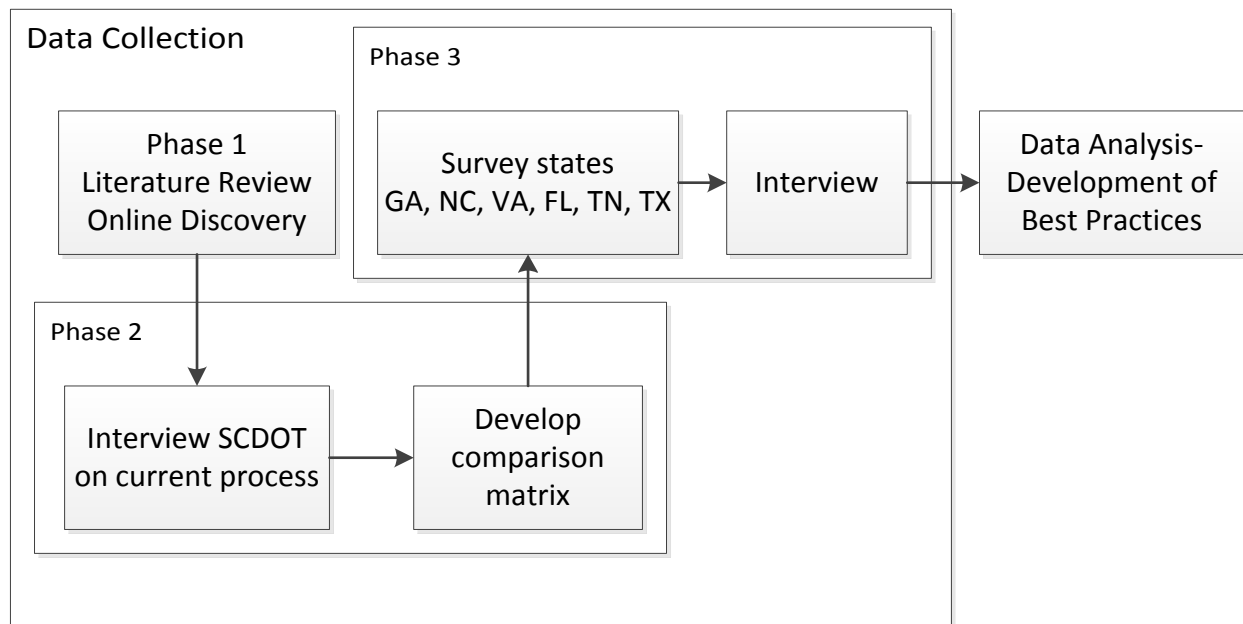


Figure 2: Best Practices Methodology Outline

Data Collection

The methodology utilized for this Best Practices study incorporated three phases for the collection of data relevant to the study. The phases included a literature review, interviews with SCDOT, and other state DOT surveys & interviews.

Literature Review (Phase 1): The first phase entailed a comprehensive review of publications and postings from professional organizations, Federal agencies, individual state agencies, and industry professionals regarding professional services procurement and contract management. Relevant subject matter that was collected and reviewed included the following:

- American Association of State Highway and Transportation Officials (AASHTO) reports, consultant recommendations, and audit guide(s)
- National Association of Contract Management (NACM), Contract Management Body of Knowledge
- External studies of state DOTs by consulting firms and academic institutions regarding professional service contracting, management, organization, and best practice for procurement and contract management
- Internal State DOT reviews and studies on policies and procedures as well as DOT legislative audits
- State DOT operation manuals, policies & procedures documents, state codes, personnel training material, and organizational structure for procurement and management of professional services
- Federal Highway Administration (FHWA) publications

- Federal Acquisition Regulations (FARs)
- Project Management Institute's (PMI), Guide to the Project Management Body of Knowledge (PMBOK Guide)
- Relevant publications, studies, and recommendations of professional organizations including the American Council of Engineering Companies (ACEC), the American Society of Civil Engineers (ASCE), and the Associated General Contractors (AGC)

Subsequent to collection of the information during phase one, a detailed review of the policies, processes, and approach for procurement and contract management of professional services was conducted. These reviews served as the baseline for development of the format and structure of the next phase of this study.

SCDOT Interviews (Phase 2): During the next phase of the study the research team conducted structured interviews with South Carolina Department of Transportation (SCDOT) management and support personnel involved in all aspects of contract procurement and administration of professional services. The interview questions and discussions were based on the SCDOT documents collected and the information reviewed in Phase one. Approximately 15 personnel representing all professional service work types and involved in the determination of need, solicitation, evaluation, selection, negotiation, and/or administration of professional services were interviewed to obtain additional insight regarding SCDOT's approach, policies, procedures, responsibilities, and organizational structure.

The insight gained from phase one of this study and these interviews served as the foundation for development of a matrix outlining the processes, policies, organization, and approach for procurement and contract administration of professional services. This comparison matrix consisted of a standard outline of procurement and administration material, which was used to layout individual states' processes and details in a similar format that would allow detailed comparisons between states. In addition to providing a manageable format of the large amount of material for each state, the matrix also allowed missing data to be easily identified. From the missing data in the matrices for each state, the information needed was identified and organized into a data inventory. This inventory summarized the specific data details relating to procurement and administration needed from each state which would be obtained in the following phase.

State DOT Surveys and Interviews (Phase 3): A preliminary search was conducted to identify the states that appeared to have progressive and documented professional service programs further advanced than SCDOT's in order to contribute to the study. To enhance application of the findings and address SCDOT's concerns, six states in the south and southeast (FL, GA, NC, TN, VA, TX) were selected for surveys and interviews. These states were also selected based on a regional interest by SCDOT. This phase of the research effort focused on the collection of data from the states selected to participate in this study.

The research team utilized three steps to collect data from these states. The matrix developed in phase two served as the baseline (guide) for data collection. During the first step of data collection for this phase the team conducted a detailed review of each state's publications, studies, and online postings to extract any data applicable to the comparison matrices.

Subsequent to this detailed review, a state specific self-administered survey was developed and distributed to each individual state in order to begin collection of the identified data needs. The survey asked questions and requested data that could be effectively and efficiently obtained utilizing the methodology of a self-administered survey (i.e. closed ended questions with mostly multiple choice answers).

The next, and final, step of data collection consisted of a series of interviews with DOT personnel from each of the six states participating in the study. Prior to the interview, participants were provided a copy of the general topics and questions to be discussed. The outlines for discussion were developed to supplement or expand on the information previously obtained from each state's online postings, publications, studies, and the self-administered questionnaires previously completed. The interviews primarily focused on the organization's approach, performance metrics, and insight regarding Best Practice.

During execution of this research effort over 25 subject matter experts (SME) were interviewed. Each interview was structured to facilitate 'purposeful conversation.' To enhance validity and reliability the interview was approached as an iterative process where the participants were asked questions to clarify input and probe the concepts being discussed. To ensure accurate and comprehensive 'capture' of the participant's input, and reduce recording error, notes were taken and interviews were taped when permission was granted. To facilitate participation, and enhance the validity of respondent input, interview participants were assured of confidentiality beginning with the initial solicitation. Subsequent to each interview the participant's comments were summarized for future analysis.

Data Analysis

The research strategy for recording and analysis of the data could be best classified as 'accurate description' (Strauss and Corbin, 1990) or 'descriptive' qualitative research (Cooper and Schindler, 1998). The purpose of this phase of the study was to develop a descriptive summary of the data collected and the corresponding best practices for procurement and contract management.

The ultimate objective of the data analysis process was the generation of categories, themes, and/or patterns that link the secondary and primary data collected during this research effort with corresponding best practices. The process was not one of "searching for the exhaustive and mutually exclusive categories of the statistician, but instead to identify the salient, grounded categories of meaning held by participants" (Marshall et. al., 1989:116).

Data analysis required a conceptualization and open coding of the data – a "process of breaking down, examining, comparing, conceptualizing, and categorizing data" (Strauss and Corbin, 1990:61). The initial step required an evaluation of the data to facilitate conceptualization of the information and the development of a labeling (coding) system to organize the phenomenon. The next step in the analysis was the development of categories and the associated sub-categories linked to each best practice. The data was evaluated and analyzed to identify the patterns, or themes, associated with each.

The themes and patterns found to be associated with each of the best practice(s) are presented in the following section of this report. While consensus on any one theme/pattern or best practice was rare, there was a high degree of similarity among SMEs, past studies, professional publications, and

State DOT management and personnel. Findings, opinions, beliefs, strategy, and approach were often very similar and in some cases approached consensus leading to the development of the best practices.

Training Sessions

Another objective of the project was to develop and provide training for Contract Managers on the procurement and administration of professional services contracts. With the Training Manual developed, this objective was met by conducting a pilot training session with a group of experienced contract managers as well as the project's steering committee members. The materials for this training were based on the Training Manual developed for SCDOT.

The drafted training session material, developed by the Clemson team, was first presented to the steering committee in a dry run of the training session at SCDOT Headquarters to finalize the material, obtain preliminary feedback on the direction of the training, and validate the content of the training session. Corrections to the content were made and subject areas were critiqued by the steering committee members. The training material included the training manual which is a presentation used for the training. In addition, handouts of specific documents, forms, and written procedures were included in the training material packet.

The pilot training session was held with the project steering committee members and 32 other SCDOT employees that serve or have served as Contract Managers. These personnel were described as "mid-managers" that were involved in the day-to-day management of professional services contracts. The attendees also represented all areas of SCDOT involved in professional service contracts including traffic, construction, preconstruction, environmental and professional services. The pilot training was held at the Columbia Convention Center as a six and one half hour event in a classroom style format. While the main presenter was a member of the Clemson research team, Subject Matter Experts (SMEs) from SCDOT were utilized periodically throughout the presentation to provide extensive details or specific procedures for certain topics. The SCDOT personnel that served as SMEs were:

- The Chief Procurement Officer,
- A Regional Production Engineer,
- The Director of Construction,
- The Assistant Contract Counsel

The training session was held in an open style format where attendees were encouraged to ask questions about the material being presented and discuss topics or issues they have experienced. This resulted in numerous dialogues between the SMEs and the Contract Managers which provided valuable opportunities to highlight issues, provide situational examples, discuss effective strategies or methods, and to clarify expectations of upper management.

One objective of the pilot training session was to obtain feedback from the attendees. Obtaining their feedback was vital in critiquing the training session's material and presentation. An evaluation was developed and administered to the attendees in hard copy form at the end of the training session. The evaluation was collected from attendees as they exited the session. The evaluation form consisted of

open ended questions, and statements about the session in which evaluators were asked to identify their level of agreement or disagreement with. The results of the evaluation are summarized in the Findings section of this report and the evaluation form is shown as Attachment E.

FINDINGS

This section summarizes the findings and discusses the deliverables developed from this project. The deliverables are shown in the Appendices of this report.

Best Practices

Best Practices were developed on twelve areas of professional service contracts procurement and administration based on a review and analysis of other DOTs. Each Best Practice narrative states the general practice identified and discusses the related details. SCDOT's current related practices are included in the narrative followed by recommendations for SCDOT on how to implement or move toward implementing the Best Practice. The 12 Best Practices covered are:

- Strategic Plan
- Quality Management
- Professional Services Manager
- Standardization
- Operations Manual
- Training and Certification
- Automation
- Contract Specific Procurement Plans
- Indefinite Delivery (On-Call) Contracts
- Payment Method
- Performance Metrics
- Performance Evaluation

The Best Practices document is included as Attachment A of this report.

Training Manual

The training manual was developed based on an extensive review of SCDOT documents, references and interviews with SCDOT personnel. The manual covers multiple topics related to professional service contracts procurement and administration and is divided into three sections: 1) Introduction, 2) Procurement, and 3) Administration. The Introduction section discusses what professional services are, explains all parties and personnel involved in professional services at SCDOT, and discusses the responsibilities and ethics related to professional services.

The Procurement section focuses on the professional services procurement process which is covered in detail with a step-by-step discussion of the process. The process discussions include related excerpts from DD41 as well as tips and recommendations for Contract Managers to consider during each step of the process. Major topics covered by the Procurement section include: contract negotiations, estimate development, consultant evaluation and consultant selection. The Administration section of the manual also includes excerpts from DD41 and tips and recommendations for Contract Managers.

Major topics covered in the administration section of the training manual include invoicing and contract modifications. The complete Training Manual is provided as Attachment B of this report.

Training Session

The training session materials developed include a 120 slide presentation of the material from the Training Manual structured in a similar format. In addition, a training packet for the attendees was compiled which consists of the Training Manual, a printout of the presentation slides, and related handouts. The handouts consist of example documents which are discussed during the presentation. The presentation was designed for a single main presenter; however, opportunities are included throughout the presentation for SCDOT SMEs to contribute for more in-depth discussions on specific topics. The training session presentation is included as Attachment C of this report. The training session handouts are included as Attachment D of this report.

Training Session Evaluation

Evaluations of the pilot training session were filled out by the SCDOT personnel and steering committee members in attendance of the session. The evaluation covered the presenters, format, content, and presentation of the materials. The evaluations resulted in both positive and negative constructive feedback that is summarized in this section. The italicized questions are from the evaluation with summaries of the responses below.

What areas/topics could use more coverage in the training?

The topics suggested the most for expansion were: negotiating procedures and strategies, procedures for consultant evaluation and scoring, the ProjectWise system, developing/writing scope for the advertisement and contract, invoicing review procedures and tips, filling out Package A, and authorizations and guidance for contract mods.

What areas/topics should receive less coverage in the training?

There were numerous recommendations to reduce the coverage on e-teams and project meetings.

How was the quality of the presentation and materials?

There were numerous complimentary comments on the presentation and materials. There were a large number of recommendations for breaking the material into more topic specific modules, potentially available online and specifically for new Contract Managers. Other suggestions included creating two sets of training-one with the materials focused on preconstruction and one on construction. One attendee pointed out how difficult it is to have holes in the policy you are trying to teach. Evaluations also included several recommendations to provide the handout material to attendees before the session in order for them to be able to digest the large amount of information.

What was the strongest feature of the training session?

There were a lot of comments praising the open discussion format of the session and the inclusion of upper management, the SMEs, to talk about real examples and situations and how to handle them. Other evaluations listed the discussions on invoicing, lump sum contracts, actual contract management issues/tips, contract execution, DD41, contract modifications, and the scoring and selection committee procedures as the strongest features of the session.

What was the weakest feature of the training?

There were no similar comments on the weakest feature of the training. Comments did suggest the weakest feature to be: getting too deep into subject details, the lack of review of example forms, the discussion on contract modifications versus re-advertisement, and the discussion on the solicitation/selection of firms.

What are any additional comments on the training?

There were multiple comments suggesting the need to point out where standard templates and forms utilized during procurement and administration can be found. Professional service terminology definitions or explanations were also recommended for the sake of new Contract Managers. Following an example or hypothetical contract through procurement as part of the training was also suggested.

Figure 3 shows the average ratings from the evaluation. The rating subjects listed along the x-axis of the chart represent statements listed in the evaluation. The evaluators were asked to identify their level of agreement or disagreement with the statements about the session. The options evaluators were given are shown in Figure 3. The numbers represent:

- 4-Strongly agree
- 3-Agree
- 2-Disagree
- 1-Strongly Disagree

The statements listed in the evaluation were:

- The objectives of this program were realistic.
- I learned more than I could have on my own, through reading, etc.
- Content presented was suitable for my background and experience.
- Program was well paced within allotted time.
- Handouts were relevant.
- Participants were encouraged by speakers to take an active part.
- I would recommend this program to others in the future.

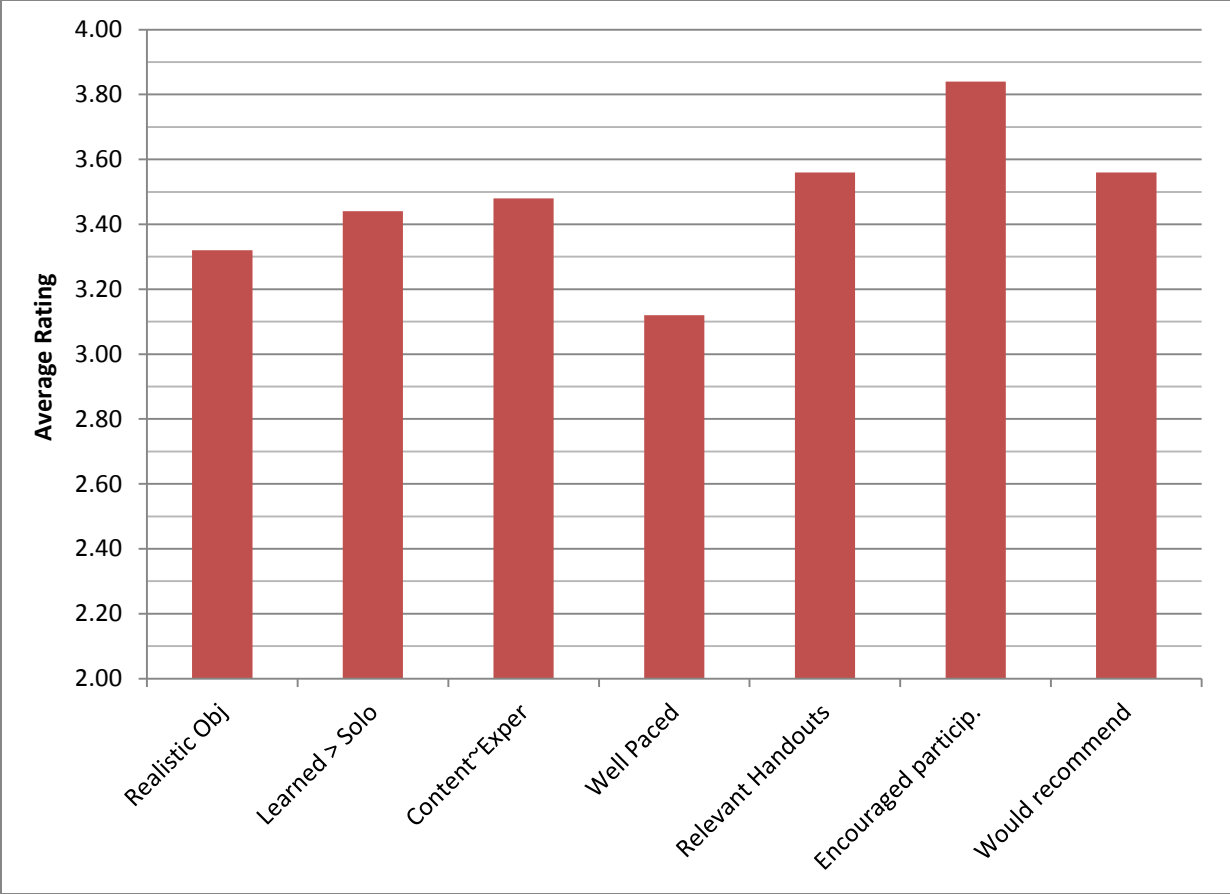


Figure 3 Average Evaluation Ratings

RECOMMENDATIONS

The deliverables of this project must continue to be utilized by SCDOT in order to provide the intended project benefit of improving the procurement and administration of professional service contracts. While these documents have been finalized for the purpose of this project, the training materials will require continuous updating as the practices and policies continue to evolve. Five recommendations are made to SCDOT to continue the improvement of the professional services procurement and administration practices and policies. These recommendations are listed and detailed in this section.

- 1. SCDOT should assign responsibility of the training material to the Chief Procurement Officer.**
- 2. SCDOT decision makers should review the Best Practices and reference the document to guide the evolution of procurement and administration processes and policies.**
- 3. SCDOT should hold an annual or bi-annual training session for current Contract Managers to review current practices, address issues, and implement changes.**
- 4. SCDOT should break down the training material into subject specific sections and develop 15-20 modules that can be accessed online by Contract Managers.**
- 5. SCDOT should develop a certification program utilizing the online modules for Contract Managers.**

Each recommendation is further discussed below.

1. SCDOT should assign responsibility of the training material to the Chief Procurement Officer.

It is difficult to identify a single entity or group within SCDOT that would be an appropriate place for the deliverables of this project to “live.” However, dividing the deliverables amongst different departments would make coordinating content updates difficult. Therefore, the research team suggests that the Chief Procurement Officer is the most appropriate ‘home’ for the Procurement and Administration training materials. In addition, the Chief Procurement Officer should be responsible for ensuring the administration material is updated by working with the Construction and Preconstruction Directors to ensure content follows procurement law.

2. SCDOT decision makers should review the Best Practices and reference the document to guide the evolution of procurement and administration processes and policies.

It is recommended that copies of the Best Practices document be reviewed and retained for reference by all decision makers involved in changes to the policies and practices of procurement and administration of professional services contracts. The Best Practices can be utilized to help decision makers develop a plan on what direction procurement and administration policies need to go.

3. SCDOT should hold an annual or bi-annual training session for Contract Managers to review current practices, address issues, and implement changes.

Based on the evaluations of the pilot training, the experienced contract managers stated that the open discussion format with upper management was extremely beneficial and effective. Going forward SCDOT should hold a one half day training session for experienced Contract Managers on an annual or bi-annual basis to introduce new practices or policies, ensure up-to-date policies and practices are being implemented, and discuss current issues. The session should be similar in format and content of the pilot training session conducted for this project and should involve upper management or subject matter experts as detailed in the training presentation.

4. SCDOT should break down the training material into subject specific sections and develop 15-20 modules that can be accessed online by Contract Managers.

While the pilot training session received very positive feedback, the logistics and feasibility to hold class room style training on a regular basis could prove difficult for SCDOT. The training materials for contract managers should be divided into 15-20 modules that address specific areas of procurement and administration. These modules should provide introductions to the basic terms, ideas, and processes. These training materials could then be made available in an online setting through SCDOT's intranet. This would allow contract managers to obtain the training when needed at a location and time that is convenient for them. This setting would also be more efficient and cost effective for SCDOT than a centralized class room style training session.

It is recommended that SCDOT identify 4-6 areas of the training material that would be appropriate for creating modules. These 4-6 areas could then be used to develop modules which would serve as pilot modules. The pilot modules would allow SCDOT to determine the most effective format and efficient method of development of the modules before attempting to develop the 15-20 modules necessary to cover all training areas.

5. SCDOT should develop a certification program utilizing the online modules for Contract Managers.

With the development of a series of online training modules available to Contract Managers, a certification program could easily be incorporated. This program could consist of questions that must be answered upon completion of module(s). Once a Contract Manager has successfully completed the modules and passed the required tests a certification could be awarded. With online modules, Contract Managers are allowed the flexibility to begin the training when necessary and complete the modules as time allows. With the certification questions/tests accompanying the modules, the program would require minimal administrative resources from SCDOT and provide Contract Managers with a consistent and accurate foundation of the practices and policies of professional services contract procurement and administration.

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ATTACHMENTS

Attachment A: Best Practices

Attachment B: Training Manual

Attachment C: Training Power Point Presentation

Attachment D: Training Presentation Handouts

Attachment E: Blank Evaluation Form

Attachment A

Best Practices



Professional Services Procurement and Administration Best Practices



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Professional Services Procurement and Administration Best Practices

These Best Practices were developed by the Clemson University research team under the guidance of a South Carolina Department of Transportation (SCDOT) steering committee through a project sponsored by a research grant from SCDOT and the Federal Highway Administration (FHWA). These practices were developed by the Clemson team and are based on extensive review and analysis of SCDOT's current philosophy and approach, the practices of other states' department of transportation, scholarly work by industry and academic professionals, and previous studies of professional services. The research methods utilized for this study are explained in Section II of this report.

Contents

Introduction 1

Section I: BEST PRACTICES SUMMARY 3

- 1. Strategic Plan 3
- 2. Quality Management..... 3
- 3. Professional Services Manager 4
- 4. Standardization 4
- 5. Operations Manual 5
- 6. Training and Certification..... 5
- 7. Automation 6
- 8. Contract Specific Procurement Plans..... 6
- 9. Indefinite Delivery (On-call) Contracts..... 7
- 10. Payment Method 7
- 11. Performance Metrics..... 8
- 12. Performance Evaluation 8

Section II-RESEARCH METHODOLOGY 9

Section III BEST PRACTICES NARRATIVES 13

- Strategic Planning 13
- Quality Management 16
- Professional Services Manager 18
- Standardization..... 20
- Operations Manual for Procurement and Contract Management..... 22
- Training & Certification..... 25
- Automation 28
- Contract Specific Procurement Plans 30
- Indefinite Delivery (On-call) Contracts 33
- Contracting & Payment..... 35
- Performance Metrics 38
- Performance Evaluation 41

References 43

Introduction

Until recently, SCDOT has had major efficiency and effectiveness issues with the procurement and administration of professional services contracts. In some situations contracts for professional services had the potential to delay projects because they could not be executed in a reasonable amount of time, and personnel were frequently frustrated with the inefficiencies of the procurement and administration process. This was often due to a combination of issues including poor procedures, lack of personnel training, lack of resources and minimal strategic planning. Even though improvements have been made, SCDOT feels further changes could prove beneficial. Therefore, one of the objectives of this project is to identify the best practices for procurement and administration of professional service contracts and utilize those best practices to advise SCDOT on how to improve their contract procurement and administration performance.

Professional services are utilized by most every state Department of Transportation (DOT) in the country with various values of contracts executed. Federal laws dictate the major steps in the procurement of these contracts and states have their own related laws and codes that must be followed as well. Still, ample room exists for optimizing practices that adhere to the laws. States with a large volume of professional services contracts often see the potential benefits from improvements of their business practices and therefore allocate considerable resources to developing and revising practices that allow efficient and effective contract procurement and administration. Other states follow the laws with little or no emphasis on procedure or policy improvement which can result in long and ineffective contract procurement and administration.

A best practice is defined as “a technique or methodology that, through experience and research, has reliably led to a desired or optimum result” (1). Best practices are identified and implemented in order for organizations to obtain the benefits resulting from the combined experiences and knowledge of those analyzed in the study. Best practices can be developed by completing the following tasks: 1) identifying related practices from similar organizations, 2) compiling outcomes of each practice, 3) analyzing and comparing the results of each practice, 4) and identifying the practice that most consistently provides the best outcome. The best outcome is determined based on the objective(s) of the practice. Best practices are intended to be universal and applicable to related organizations. They can be simple and easily implemented or complex, and require staged implementation that can depend on the priorities and capabilities of the organization.

This report covers the best practices developed by the Clemson University Research team after extensive data collection from a literature search, interviews with SCDOT, as well as surveys and interviews with six other state DOTs. The literature search included reviews of previous academic, internal and external studies of DOTs, materials from the National Contract Management Association (NCMA), Project Management Institute (PMI), AASHTO, and other subject matter experts or sources. The data collected was then analyzed to identify best practices. Further details on the project steps are detailed in the Research Methodology section

(Section II) of this report. The study has resulted in the identification of 12 best practices for professional services contract procurement and administration.

Section I of this report provides summaries of each best practice developed. The summaries state the best practice and identify the corresponding recommendations for SCDOT. Section II of the report is a detailed methodology of how the best practices were developed by the Clemson team. The primary elements of this study are the best practice narratives in Section III of this report. The narratives state the best practice, provide an overview of the best practice, and identify the benefits. With the objective of this project focused on SCDOT, each best practice is mapped to SCDOT's current procedure related to the best practice. In addition, recommendations on how to move towards implementation of the best practice and improve SCDOT's position are provided.

For this study, the best practices are intended for and written with the SCDOT in mind however, they can be applicable for other state Departments of Transportation that utilize professional service contracts. Most of the best practices are stated at a high level in order for them to be applicable to DOTs that vary widely in organization, personnel, volume of professional services and legal environment.

Section I: BEST PRACTICES SUMMARY

Section I outlines the best practices recommendations specified for SCDOT based on the evaluation and analysis of the current SCDOT situation.

1. **Strategic Plan:** SCDOT should develop a strategic plan to, a) identify the agency's long-term objectives regarding professional services consultants, b) identify the paths required to achieve objectives, and c) facilitate alignment of the agency's actions with the long-term objectives.
 - A. Ensure understanding and commitment by agency leadership: Agency leadership must develop an understanding of, and commitment to, strategic planning. They must raise the level of organizational awareness and aggressively support the need for development of a strategic plan that proactively establishes the long-term objectives and direction of the organization regarding the procurement and management of professional services consultants. Agency leaders are the organization's key strategists and must serve as a catalyst for commitment to the planning effort and development of the strategic objectives of the agency.
 - B. Develop a strategic plan: To initiate development of a strategic plan, agency leadership must first identify and assemble a core planning team to assist with plan development and subsequently with implementation. The team needs to collect and analyze information regarding the agency's general operating environment, constraints, customer needs, organizational strengths and weaknesses, and past performance metrics. The insight gained will allow the foundation to determine the agency's long-term objectives and the plans necessary for success.
 - C. Implement the plan: Once the plan is developed, agency leadership should then take an active role in plan implementation. Leadership's support for the allocation of resources for implementation is essential for success. They must realize that developing and implementing strategy is not a destination, but a long and challenging journey that requires their continuing guidance, energy, and commitment.
2. **Quality Management:** SCDOT should develop and implement a Quality Management program with agency-wide participation that is focused on continuous improvement of the agency's performance.
 - A. Investigate program potential: SCDOT leadership should investigate quality management concepts and the various approaches to validate commitment and determine the best approach for SCDOT. Leadership should determine their level of support, degree of employee involvement, and desired outcomes. Assuming that leadership supports the implementation of a quality management program, the appropriate first steps are identified in B, C, D and E.
 - B. Raise organizational awareness: SCDOT should raise organizational awareness regarding the importance of Quality Management and continuous improvement. Agency leadership should communicate their commitment, share expectations, and solicit participation.

- C. Assemble quality teams: SCDOT should form quality teams to address common and recurring problems/issues. It might be appropriate to select issues identified in other Best Practice recommendations. The teams could be inter-department and/or cross-functional teams.
- D. Provide authority and support: SCDOT should empower the team(s) to solve the problem/issue and support their efforts by providing the time and resources needed to address the issue.
- E. Build on success: SCDOT should build on program success and expand involvement to enhance organizational impact. To be effective, Quality Management teams should continue to identify areas for improvement. When teams effectively solve a problem/issue, leadership should acknowledge team success.

3. Professional Services Manager: SCDOT should consider expanding the role of Professional Services Manager's (PSM) to 'management' of the procurement process and give the PSM increased responsibility for the procurement process. The Contract Manager should be realigned to more of a support role during procurement. These shifts would increase the efficiency and effectiveness of the procurement process.

- A. Realign the role of the PSM: SCDOT should realign the roles of the PSM and Contract Manager during the procurement process. The role of the PSM should shift from advisor to manager of the procurement process and the CM should move to more of a support role. During procurement, the CM should serve as a technical advisor/consultant to the PSM regarding scope, pricing, and performance requirements. The PSM should manage the procurement process and the CM should support that effort.
- B. Raise awareness and commitment to DD41: SCDOT should elevate professional service procurement and management personnel's awareness and understanding of Departmental Directive 41 and gain their commitment for implementation. SCDOT Leadership should reinforce their commitment to DD41, offer training to elevate understanding of the directive, and enforce implementation of the directive.

4. Standardization: To improve efficiency, aid communication, enhance the usability of project/contract data, and promote consistency of action, SCDOT should standardize operational processes, documentation, and reporting. Standardization will reduce operating variances that can cause delays, require additional resources, create problems with data compatibility, or reduce the usefulness of project data.

- A. Establish a team to identify needs: SCDOT should establish a team of qualified and experienced personnel to identify the operational processes, forms, and reporting requirements that should be standardized regarding the procurement and management of professional service consultants.

- B. Develop organizational standards: Once SCDOT's standardization needs have been identified the best practice (or standard) for each process, form, or reporting requirement should be developed and implemented.
- C. Provide support: SCDOT management should provide their support and the organizational resources to facilitate development and implementation of operational standards recommended by the team(s) charged with the identification and development of the agency's standards.

5. Operations Manual: SCDOT should develop a comprehensive operations manual that documents process, policy and organization for procurement and contract management of professional service consultants. A comprehensive Operations Manual will serve as a reference for operational personnel, establish and stabilize processes, promote operational efficiency and effectiveness, and provide a baseline for future changes and training. Recommendations to accomplish implementation of this Best Practice are:

- A. Develop Comprehensive DD41: SCDOT should build upon Departmental Directive 41 (DD41) to develop a comprehensive Operations Manual for procurement and management of professional services consultants. SCDOT should expand the detail and scope of DD41 to provide complete documentation of procurement and contract management policy, procedures and responsibilities. Revisions to DD41 should be made by a designated committee comprised of SCDOT personnel experienced in the operations and management of professional service consultants.
- B. Adopt & Distribute DD41: SCDOT should, a) distribute DD41 to all procurement and management personnel, b) communicate management's commitment to its use, and c) request buy-in and adoption of DD41 by all operational personnel.

6. Training and Certification: SCDOT should establish a formal training program for contract managers, procurement personnel, and professional services consultants to communicate process and policy, gain feedback and buy-in, and stabilize operations. Once a training program is established, SCDOT should develop or adopt a program to verify (certify) participant understanding and comprehension.

- A. Complete DD41: As noted in Best Practice #5, SCDOT should expand the coverage and detail of DD41 so that it can serve as the agency's *operations manual* to document 'standard operations procedure' for each process, policy, and approach for procurement and contract management of professional service consultants.
- B. Develop a training program: SCDOT should develop a training program for procurement and management of professional service contracts. Once process and policy have been fully documented, the program should be expanded to a comprehensive effort that regularly offers focused and stepped or staged training to all individuals involved in the procurement and management of consultants.

- C. Provide consultant training: SCDOT should provide optional training to consultants to ensure they understand the procurement and administration process, which can aid in a smoother procurement and administration process. This training could be targeted to new consultants who have done little or no business with SCDOT. This training should also cover common mistakes, omissions, or misunderstandings of consultants as well as communicate changes in process or policy.
- D. Provide management training: Subsequent to the implementation of a completed DD41 and training program, SCDOT should consider expanding their training program to include management skills, best practices, and/or personnel development themes and topics. These training modules could be developed internally, or selected from the spectrum of procurement and management training modules, and corresponding certifications available in the marketplace.

7. Automation: SCDOT should expand the use of automated systems for data, document, and project management in order to improve communication efficiency, allow automatic data capture, prevent redundant data entry, improve document quality, and reduce personnel needs.

- A. Expand current software implementation: SCDOT should consider the project management software currently utilized for automating procurement as the first stage of a two stage implementation. The second stage of implementation should focus on automating contract administration. The following details two recommendations for an automated system that would make up the second stage of implementation:

- SCDOT should utilize an automated system for handling, approving, and paying invoices. Due to the path an invoice takes from development to payment, an automated system would significantly expedite the process, reduce the resources needed and improve the accuracy of the submitted invoices. The system would allow for a seamless and instant communication between the consultant, SCDOT project manager, and accounting department. The system could reference pricing data from the executed contract to ensure billing rates and other costs are accurate and that payment schedules are followed to reduce errors.
- SCDOT should incorporate consultant evaluations into an automated system that would allow performance metrics collected throughout execution of the contract to be automatically referenced in the evaluation. The system could also make evaluations easily accessible by the selection committee during procurement.

8. Contract Specific Procurement Plans: SCDOT should develop contract specific procurement plans once the need for professional services has been identified in order to relay expectations and establish procurement deadlines, objectives, and a plan for resource allocation.

- A. Establish milestone dates: SCDOT should establish procurement milestone dates for each major step of the procurement process. The plan should be developed by the professional

service manager or staff with the requisite experience and knowledge to prepare a feasible plan.

- B. Communicate plans: SCDOT should communicate the procurement plan, all updates, and performance metrics to all personnel involved in the procurement process, including consultants. During execution of the plan, personnel should be provided regular feedback regarding performance. In addition, recovery plans should be developed and communicated if progress falls behind initial project plans.

9. Indefinite Delivery (On-call) Contracts: SCDOT should continue to successfully utilize indefinite delivery (ID) contracts for routine work types and expand the use to include surveying in order to take advantage of shorter and more efficient procurement that can provide flexibility for uncertain timing of needs or funds. SCDOT should also establish ID contract limits to prevent the misuse and potential negative effects of ID contracts.

- A. Establish contract limits: SCDOT should identify maximums for the time and dollar value limits of ID contracts. States often limit ID contracts to a length of 2 to 3 years and a value of \$2-\$5 million.
- B. Utilize for surveying services: SCDOT should expand the use of ID contracts to include surveying services, which is a work type with characteristics that are appropriate for ID contracts. (These characteristics are listed in the “Indefinite Delivery Contracts” narrative in Section III).

10. Payment Method: Where appropriate, SCDOT should utilize lump sum contracts to shift the risk for project costs to the service provider, lower contract administrative costs, and encourage efficient and effective service provider operations.

- A. Utilize on appropriate projects: SCDOT should utilize lump sum contracts on projects that have a well-defined scope, entail work types in which SCDOT has extensive experience, and that have a low probability of unknowns or changes.
- B. Improve capture of pricing data: SCDOT should establish processes to improve the capture of historical project data that a) will enhance organizational knowledge and expertise, and b) can be used to effectively establish and negotiate competitive pricing on future professional service contracts. See the ‘Standardization’ Best Practice narrative for an example.
- C. Train personnel: SCDOT should implement a training program so that personnel responsible for the selection, negotiation, and administration of lump sum projects are aware of the differences between lump sum and cost reimbursable contracts with regard to process, policy, and strategies.

11. Performance Metrics: SCDOT should establish performance metrics that will allow the department to monitor and evaluate the efficiency and effectiveness of the procurement and contract management of professional services consultants.

- A. Improve metrics for time to procure: SCDOT should expand the capture of performance metrics regarding time for each step of the procurement process. This will help isolate problem areas, reinforce individual responsibility, and identify areas for continued improvement (reduction) of the time required to procure professional service consultants.
- B. Measure effectiveness of procurement: SCDOT should evaluate the effectiveness of procurement. In addition to monitoring time for each step of the procurement process, performance metrics for cost and quality should be considered. SCDOT should implement performance metrics that permit comparison of negotiated estimates to actual costs, initial scope with final completed scope, and contracted (planned) schedule to the actual project time.
- C. Evaluate department's use of consultants: SCDOT should establish performance targets relating to consultant contracts to determine how well the department meets those targets (through the use of performance metrics). These targets would aid the department in the justification of increased consultant contracts as well as improve the legislature's and public's view of the department's accountability.

12. Performance Evaluation: SCDOT should implement a multi-source assessment policy to obtain feedback from vendors, professional service providers, contractors, and other interested stakeholders regarding SCDOT's processes, policies, and organization for the procurement and management of professional service consultants. This feedback will provide insight to effectively identify operational strengths and weaknesses. In addition, it will assess the performance and the overall delivery process as well as identify problems of individual team members.

- A. Facilitate feedback opportunities: SCDOT should organize a 'Quality Circle(s)' with key delivery partners to clarify current policy and procedure, gain input on issues of concern, review/refine consultant and SCDOT performance metrics, and identify areas needing improvement.
- B. Develop evaluation system: SCDOT should develop and implement an evaluation system that can be used to regularly obtain confidential and anonymous feedback from consultants regarding SCDOT policy, process, personnel, and organizational structure.
- C. Act on feedback: SCDOT should act on constructive feedback. The agency should address concerns and implement suggestions for improvement when appropriate. SCDOT should also utilize, or develop effective performance metrics to evaluate the impact of corrective actions taken.

Section II-RESEARCH METHODOLOGY

The purpose of this study was to identify Best Practices for procurement and management of professional services contracts. To accomplish that objective the following research methodology was utilized for data collection and analysis. Figure 1 outlines the study methodology which is further detailed in this section. The methodology consists of two main steps-three phase data collection, and data analysis.

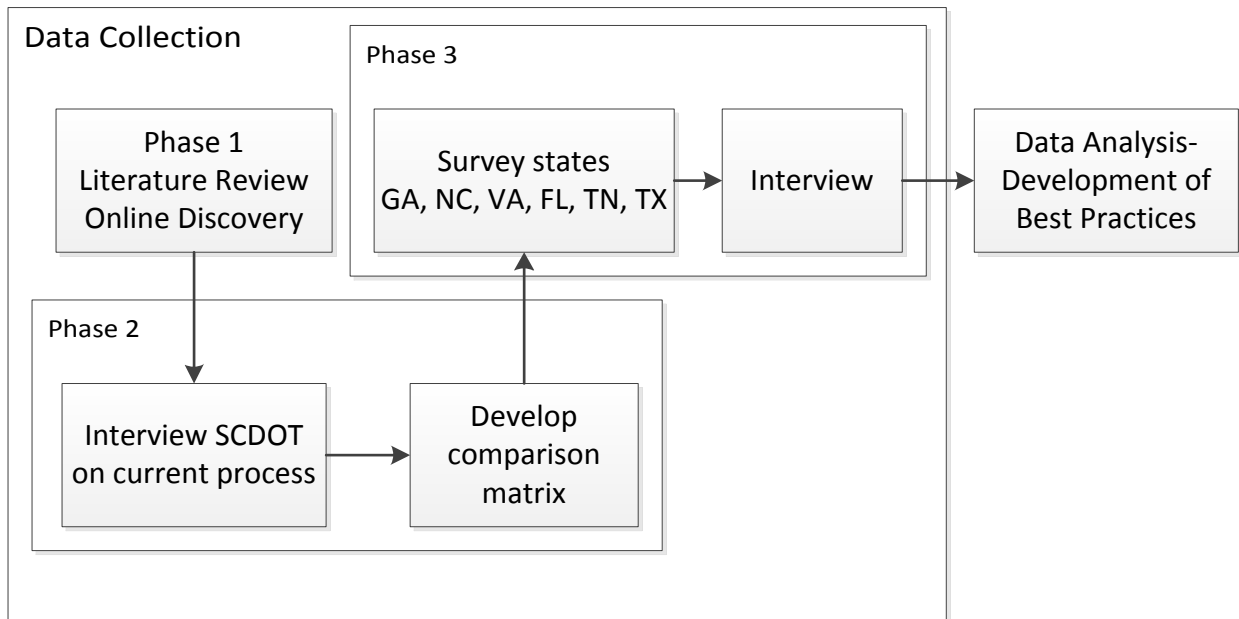


Figure 1: Methodology Outline

Data Collection

The methodology utilized for this Best Practices study incorporated three phases for the collection of data relevant to the study. The phases included a literature search, interviews with SCDOT, and other state DOT surveys & interviews.

Literature Search (Phase 1): The first phase entailed a comprehensive review of publications and postings from professional organizations, Federal agencies, individual state agencies, and industry professionals regarding professional services procurement and contract management. Relevant subject matter that was collected and reviewed included the following:

- American Association of State Highway and Transportation Officials (AASHTO) reports, consultant recommendations, and audit guide(s)
- National Association of Contract Management (NACM) Contract Management Body of Knowledge
- External studies of state DOTs by consulting firms and academic institutions regarding professional service contracting, management, organization, and best practice for procurement and contract management

- Internal State DOT reviews and studies on policies and procedures as well as DOT legislative audits
- State DOT operation manuals, policies & procedures documents, state codes, personnel training material, and organizational structure for procurement and management of professional services
- Federal Highway Association (FHWA) publications
- Federal Acquisition Regulations (FARs)
- Project Management Institute's (PMI) Guide to the Project Management Body of Knowledge (PMBOK Guide)
- Relevant publications, studies, and recommendations of professional organizations including the American Council of Engineering Companies (ACEC), the American Society of Civil Engineers (ASCE), and the Associated General Contractors (AGC)

Subsequent to collection of the information during phase one, a detailed review of the policies, processes, and approach for procurement and contract management of professional services was conducted. These reviews served as the baseline for development of the format and structure of the next phase of this study.

SCDOT Interviews (Phase 2): During the next phase of the study the research team conducted structured interviews with South Carolina Department of Transportation (SCDOT) management and support personnel involved in all aspects of contract procurement and administration of professional services. The interview questions and discussions were based on the SCDOT documents collected and the information reviewed in Phase one. Approximately 15 personnel representing all professional service work types and involved in the determination of need, solicitation, evaluation, selection, negotiation, and/or administration of professional services were interviewed to obtain additional insight regarding SCDOT's approach, policies, procedures, responsibilities, and organizational structure.

The insight gained from phase one of this study and these interviews served as the foundation for development of a matrix outlining the processes, policies, organization, and approach for procurement and contract administration of professional services. This comparison matrix consisted of a standard outline of procurement and administration material, which was used to layout individual states' processes and details in a similar format that would allow detailed comparisons between states. In addition to providing a manageable format of the large amount of material for each state, the matrix also allowed missing data to be easily identified. From the missing data in the matrices for each state, the information needed was identified and organized into a data inventory. This inventory summarized the specific data details relating to procurement and administration needed from each state which would be obtained in the following phase.

State DOT Surveys and Interviews (Phase 3): The next phase of the research effort focused on the collection of data from the states selected to participate in this study. To enhance application of the findings and address SCDOT's concerns, six states in the south and southeast (FL, GA, NC, TN, VA, TX) were selected to participate. These states were selected based on regional interest and their attitude or

approach to professional services. A preliminary search was conducted to identify the states that appeared to have progressive and documented professional service programs further advanced than SCDOT's in order to contribute to the study.

The research team utilized three steps to collect data from these states. The matrix developed in phase two served as the baseline (guide) for data collection. During the first step of data collection for this phase the team conducted a detailed review of each state's publications, studies, and online postings to extract any data applicable to the comparison matrices.

Subsequent to this detailed review, a state specific self-administered survey was developed and distributed to each individual state in order to begin collection of the identified data needs. The survey asked questions and requested data that could be effectively and efficiently obtained utilizing the methodology of a self-administered survey (i.e. closed ended questions with mostly multiple choice answers).

The next, and final, step of data collection consisted of a series of interviews with DOT personnel from each of the 6 states participating in the study. Prior to the interview, participants were provided a copy of the general topics and questions to be discussed. The outlines for discussion were developed to supplement or expand on the information previously obtained from each state's online postings, publications, studies, and the self-administered questionnaires previously completed. The interviews primarily focused on the organization's approach, performance metrics, and insight regarding Best Practice.

During execution of this research effort over 25 subject matter experts (SME) were interviewed. Each interview was structured to facilitate 'purposeful conversation'. To enhance validity and reliability the interview was approached as an iterative process where the participants were asked questions to clarify input and probe the concepts being discussed. To ensure accurate and comprehensive 'capture' of the participant's input, and reduce recording error, notes were taken and interviews were taped when permission was granted. To facilitate participation, and enhance the validity of respondent input, interview participants were assured of confidentiality beginning with the initial solicitation. Subsequent to each interview the participant's comments were summarized for future analysis.

Data Analysis

The research strategy for recording and analysis of the data could be best classified as 'accurate description' (Strauss and Corbin, 1990) or 'descriptive' qualitative research (Cooper and Schindler, 1998). The purpose of this phase of the study was to develop a descriptive summary of the data collected and the corresponding best practices for procurement and contract management.

The ultimate objective of the data analysis process was the generation of categories, themes, and/or patterns that link the secondary and primary data collected during this research effort with corresponding best practices. The process was not one of "searching for the exhaustive and mutually exclusive categories of the statistician, but instead to identify the salient, grounded categories of meaning held by participants" (Marshall et. al., 1989:116).

Data analysis required a conceptualization and open coding of the data – a “process of breaking down, examining, comparing, conceptualizing, and categorizing data” (Strauss and Corbin, 1990:61). The initial step required an evaluation of the data to facilitate conceptualization of the information and the development of a labeling (coding) system to organize the phenomenon. The next step in the analysis was the development of categories and the associated sub-categories linked to each best practice. The data was evaluated and analyzed to identify the patterns, or themes, associated with each.

The themes and patterns found to be associated with each of the best practice(s) are presented in the following section of this report. While consensus on any one theme/pattern or best practice was rare, there was a high degree of similarity among SMEs, past studies, professional publications, and State DOT management and personnel. Findings, opinions, beliefs, strategy, and approach were often very similar and in some cases approached consensus leading to the development of the best practices.

Section III BEST PRACTICES NARRATIVES

Section III contains the detailed narratives on each Best Practice identified by the research team. These narratives include a detailed description of the best practice, a discussion of the benefits, the practice mapped to SCDOT and recommendations for SCDOT's implementation of the best practice.

Strategic Planning

Develop a strategic plan to a) identify the agency's long-term objectives regarding professional services consultants, b) determine the key drivers to achieve the objectives, and c) facilitate alignment of the tactical and individual actions of the organization with the agency's long-term objectives.

Overview:

An organization has a range of options regarding how its future will unfold. At one end of the spectrum are those organizations that have a poorly defined strategy and limited vision. They tend to focus almost exclusively on the short-term, day-to-day operational challenges facing the organization. The organization has failed to identify and/or effectively communicate a strategic direction and the long-term focus of the organization is hazy at best. Individual personnel react in a disjointed and uncoordinated fashion to the barrage of internal challenges and external demands facing the agency. Organizational response is often ad hoc or repeatedly altered in an effort to address the latest concern.

At the other end of the spectrum are those organizations that develop a strategy and personnel to proactively respond to their operational environment. Leadership takes steps to ensure that the entire organization has a solid understanding and commitment to the organization's long-term objectives and each person understands how their actions can support the selected strategy. They align tactical and individual response with the long-term strategic objectives of the agency. Leadership identifies long-term opportunities and challenges and then progressively takes action to develop an organization that's capable of an effective response.

Organizational strategy comprises not only what an agency intends to do, but how it is presently acting out that intent. Based upon the assumption that an organization's actions have purpose, every agency has a strategy, whether or not it is explicitly stated. An agency's strategy is characterized by their pattern of decisions and actions.

An organization's strategic decisions and actions, whether planned or ad hoc, reinforce that the essence of strategy is choice. Choices, and actions, that: 1) are important for the overall welfare of the organization, 2) can have a long-term effect on the success of an agency, and 3) are often difficult to reverse. These decisions establish the goals of the organization, its policies and programs to support those goals, and the allocation of resources necessary to achieve the agency's long-term objectives. These strategic choices are central to the performance and success of the organization and have a great deal of influence on the functional and tactical decisions throughout the agency.

The question leadership of every agency should be asking is: Should organizational strategy – the agency's strategic decisions and actions – be planned and coordinated or should the agency's strategic

direction and response be ad hoc and reactive to the current, and often changing, challenges and opportunities facing the organization?

Benefits:

Best practice supports a proactive and explicit approach to development and implementation of an agency's strategic objectives. Organizations with the greatest success have a commitment to strategic planning. They recognize that strategic planning is a balance among management intuition and judgment, organizational values, and analytical processes – an iterative process to determine the long-term objectives of the organization and the strategies and policies governing the deployment of the agency's resources. Leadership supports the planning process because it encourages self-evaluation and assessment of its operating environment and helps identify improvements needed regarding personnel, policy and procedure. They realize that the planning process compels the organization to make fundamental decisions of major importance that shape and guide an agency's strategic and tactical actions – decisions that can have an enduring effect on the success, or failure, of the organization. Strategic planning and management, whether done as part of an agency-wide model or in response to an individual leadership commitment, can help a state DOT agency better utilize its resources, including human capital and consultant resources, to achieve agency goals.

Strategic planning aids in the identification of the key drivers of organizational success. It encourages agency focus on the key issues for long-term success of the organization. In addition, the planning process enhances organizational understanding and commitment to the agency's long-term objectives. The planning process facilitates awareness and permits the entire organization to gain a clearer understanding of the agency's strategic thrust. This knowledge enhances organizational flexibility and heightens the willingness to change, leading to operational improvement. The planning process helps define agency culture, strategic approach, improves communication, and enhances employees' sense of belonging and organizational commitment.

SCDOT Approach/Philosophy:

SCDOT does not have a current strategic plan for the procurement and management of professional services contracts. It appears that the agency does not utilize a strategic planning process to proactively ascertain resource needs, guide process and policy development, identify and implement technology systems, or determine internal and external customer needs. Agency personnel involved in professional services appear to react in an individual and uncoordinated fashion to the internal challenges and external demands facing the procurement and administration of professional service contracts.

Recommendations:

Recommendation #1: Agency leadership must develop an understanding of and commitment to the strategic planning process.

The first step is to develop an understanding and commitment to the process. Agency leadership, knowledge and commitment are essential. For success, agency leadership must a) have a basic understanding of the planning process, b) be actively involved in plan development and implementation, c) be a committed and aggressive supporter of the effort, and d) believe in its

benefits to the organization. The agency leader(s) is viewed as a 'key' strategist – a filter and catalyst for strategic initiatives. For the planning and implementation effort to be a success, they must believe in the process, lead the effort, and continually demonstrate their commitment to the entire organization. Leadership must recognize that developing and implementing strategy is not a destination, but a long and challenging journey that requires their continuing guidance, energy, and commitment. Past studies have shown that the leadership of the best performers firmly believe in a strong linkage between strategic planning and long-term organizational success and they actively support and lead the cause.

Recommendation #2: Develop and implement a strategic plan that enhances SCDOT's approach to contract management.

Once leadership has made the commitment the next step is to develop a strategic plan. Agency leadership must first identify and assemble a core planning team. Then the team needs to collect and analyze information regarding the agency's general operating environment, constraints, customer needs, organizational strengths and weaknesses, and past performance metrics. The insight gained will provide the foundation to determine the agency's long-term objectives, and key drivers for the success of the organization. It is quite likely that a number of the action plans flowing from the planning session will address needed resource development, policy, and procedural enhancements.

Quality Management

Implement an effective Quality Management program to serve as a key driver for organizational improvement and enhanced agency performance.

Overview:

Over the past several decades many organizations throughout the United States (U.S.), both public and private, have adopted quality management programs and corresponding management philosophies to enhance organizational effectiveness and elevate performance. Quality management differs from the concept of quality control, which is the inspection, testing, evaluation, or other needed action to ensure and/or verify that a product, process, or service conforms to established requirements. Rather, quality management is an organization-wide program to proactively identify and address initiatives to improve operational performance. Commonly adopted quality management programs include Total Quality Management (TQM), Lean Construction, and Six Sigma. While all of these programs differ in terms of detailed approach, they share similar quality management principles – customer focus, continuous improvement, and organization-wide involvement. Essentially, all of these quality programs are: *a structured system/process for creating organization-wide participation in the planning and implementation of a continuous improvement process to meet internal and external customer needs and expectations.*

Program Characteristics: Successful quality management programs share four common characteristics:

- 1) Quality programs are structured – they require time, energy, and resource commitment.
- 2) Quality management programs concentrate on continuous improvement. Since DOT projects are unique, improvement efforts are typically focused on process or policy common to most projects.
- 3) Successful programs encourage organization-wide involvement. Management recognizes that the involvement of operational personnel is essential to identify problems and implement the changes needed to enhance performance.
- 4) Successful quality management programs are focused on generating improvements deemed important to their internal and external customers. They strive to add value for the organization and those it serves.

Effective quality management programs empower employees to identify aids and barriers to improvement. They assign responsibility, and provide those employees with the authority and resources needed to initiate positive change. Successful programs improve communication, promote teamwork, and encourage decisions at the most appropriate level of the organization. They serve as a key driver to improve organizational performance.

Program Implementation: DOTs that embrace quality management, and the philosophy of continuous improvement, often begin with departmental or cross-functional teams to identify problem areas/issues and then charge them with charting a course for improvement. Another approach used by some is to reach outside the organization and tap the expertise of firms that can assist with training and guidance to implement an effective quality management program. In either case, organizations that recognize the

need and initiate a program realize that quality management and continuous improvement is long, committed process, not a result. They share a sense of urgency for organizational improvement and provide leadership to affect positive change.

SCDOT Approach/Philosophy:

SCDOT does not currently have a well-defined quality management program that addresses professional services. Most improvement initiatives appear to be isolated and typically generated by departmental management in response to external forces. There are few, if any, department or cross-functional teams established to identify and address common issues/problems. Professional services challenges, successes, and failures are not widely and effectively shared and inter-agency employee communication appears fragmented and limited to current issues and needs. In addition, the department/agency does not appear to have a high level of focus on continuous improvement.

Recommendations:

Recommendation #1: Agency leadership should investigate quality management concepts and the various approaches to validate commitment and determine the best approach for SCDOT.

Agency leadership should elevate their awareness and knowledge of quality management programs and evaluate the impact that they could have on the organization. Leadership must determine their level of support, degree of employee involvement, and desired outcomes. As with most organizational initiatives, management must lead the way – they must provide guidance for the organization.

Recommendation #2: Initiate the first steps for implementation of a quality management program.

Assuming that leadership supports the implementation of a quality management program, appropriate first steps to launch the initiative might include:

- *Raise the level of awareness of the organization:* Communicate management’s commitment, share expectations, and solicit participation.
- *Assemble quality teams:* Form quality teams to address common and recurring problems/issues. It might be appropriate to select issues identified in other Best Practice recommendations. The teams could be inter-departmental and/or cross-functional teams.
- *Provide authority and support:* Empower the team(s) to solve the problem/issue. Leadership should support their efforts by providing the time and resources needed to address the issue and acknowledge team success.

Select teams and program initiatives that will generate early success in order to build organizational enthusiasm and support.

Recommendation #3: Build on program success to expand involvement and enhance organizational impact.

To be effective, Quality Management programs should be a continuous effort that builds on its achievements and constantly strives to identify areas of improvement.

Professional Services Manager

Utilize a Professional Services Manager role to manage the procurement of professional services to increase the efficiency and effectiveness of the procurement process.

Overview:

Legislative and budgetary pressures, design complexity, and project volume have forced most State DOTs to re-evaluate how they address their professional services needs. To cope with these forces, many DOTs have decided to increase the use of outside professional service consultants to handle their project requirements. This shift toward an increasing use of outside consultants amplifies an organization's need for experienced procurement personnel and the development of processes to handle the increased volume of contracts. In response, an organization's approach to the procurement and administration of professional services contracts has evolved to a more centralized function.

When contracting for outside consultants is limited, decentralized procurement is a viable option. In this environment, project managers who are responsible for contract administration/management are often tapped to also lead the procurement process. As the volume of outside contracting increases, this decentralized approach can lead to: a) inconsistent procurement practices from manager to manager, b) ineffective procurement when the manager lacks the requisite experience and/or knowledge, and c) untimely procurement because of manager inattentiveness or lack of process knowledge.

To increase procurement effectiveness and efficiency, DOTs with a strong demand for outside professional consultants are encouraged to move to a structured, centralized procurement function that has the responsibility for managing procurement of all the agency needs – including project specific, on-call, and work order contracts. Best practice leads the agency to establish a separate professional services procurement department to manage the solicitation, selection, negotiation, and contracting of professional services.

During procurement, the project manager (contract manager) assumes a support role and provides technical expertise to ensure that project scope, budgetary, and performance needs are properly addressed during the procurement and contracting stage. This allows the project manager (contract manager) to focus on managing the technical aspects of project management without the burden, and distraction of managing the procurement process.

SCDOT Approach / Philosophy:

SCDOT recently established a Professional Services Office to administer the procurement of professional service consultants. With the exception of the solicitation phase, the Professional Services Manager (PSM) and Contract Manager for Negotiations (CMN) assume a support role to the Contract Manager during procurement. The PSM's role is to administer the procurement process, not manage it. The Contract Manager still retains responsibility to: a) define the professional services needed for the project and establish the selection criteria, b) chair the selection and evaluation committee, c) develop project scope and budget/estimate, d) and chair the negotiation process. Other than the assumption of a primary management role during the solicitation period, the PSM and the CMN only provide administrative assistance/support during the various phases of the procurement process.

SCDOT's approach to the procurement and administration of professional services contracts has been formalized in Departmental Directive 41 (DD41). This document describes procurement and contract administration tasks and identifies the personnel responsible. The latest version of DD41 was adopted and distributed in October 2011, however departmental personnel knowledge of DD41 is limited and adherence to the Directive is sporadic.

Recommendations:

Recommendation #1: Elevate SCDOT professional service procurement and management personnel awareness and understanding of Departmental Directive 41 and gain their commitment for implementation.

Subsequent to SCDOT leadership's confirmation of support for the 'current' version of DD41, a training session should be conducted for all professional service procurement and contract management personnel (including contract managers, PSMs, and CMNs) to raise employee awareness, increase understanding and compliance, and to solicit constructive feedback on the Departmental Directive.

Recommendation #2: Expand the Professional Services Manager's role/responsibility from administration to management of the procurement process.

Under the current Directive the PSM is in an administrative role – predominately a support role for the Contract Manager. During the interview process with SCDOT personnel it was voiced on repeated occasions that the Contract Manager is often: a) distracted by daily project needs which can lead to procurement delays, and/or b) placed in a negotiating environment where they may have less experience and contracting knowledge than the professional service consultant. To address these issues, SCDOT should consider expanding the PSM's role to 'management' and increasing their responsibility for the procurement process. The Contract Manager should assume a support role serving as a technical advisor/consultant to the PSM during procurement regarding scope, pricing, and performance requirements.

Standardization

Standardize operational processes, documentation, and reporting.

Overview:

Agencies often have multiple personnel involved in similar operations throughout the organization. Many of the tasks these personnel execute are complex and often involve multiple individuals and departments. Administrative and documentation requirements can also be extensive and the effective execution often relies on access to accurate and usable cost and performance data collected from previous contracts.

To improve efficiency, aid communication, enhance the usability of project/contract data, and promote consistency of action, organizations are encouraged to standardize operational processes, documentation, and reporting. Standardization can reduce operating variances that result in delays, require additional resources, inhibit data compatibility, or reduce the usefulness of project data.

Benefits:

Increases Compatibility: With standard processes, documentation and reporting, content from related tasks is compatible and easier to use for functions such as data recording or comparisons. One example of enhanced compatibility is when standardized format and content are utilized for estimates, invoicing, and the capture of actual (historical) project costs.

Enhances Efficiency: Standardization allows operational personnel to become familiar with formats and content. This allows more efficient capture, analysis, and communication of project data which can reduce errors, confusion and misunderstandings.

Shared Knowledge and Benefit: Organizations typically involve management and operating personnel in the development of standard processes, documentation, and reporting policies. They involve operating personnel in the identification and development of best practice for the organization. This facilitates input from personnel with a wide spectrum of experience and operational focus. Those involved, and all operational personnel, benefit from selection of operating standards that are the most effective and efficient procedures, documentation, and reporting processes.

Reduces/Eliminates Repetitive Tasks: Standardization of process and approach can eliminate task repetition. For example, standardizing common direct costs will eliminate the need to re-negotiate these costs for each contract.

SCDOT Approach/Philosophy:

Standardization of SCDOT processes, documentation, and reporting procedures is intermittent and limited. For example, DD41 standardizes the procurement process, but sparingly addresses contract management. Standardization of forms, format, and reporting is incomplete. Format has been standardized for in-house estimating, but standard classifications and pricing have not been fully

developed. Invoicing format is largely left up to each contract manager and project reporting requirements are not well defined and/or enforced. SCDOT appears to have standardized tasks in response to an operational problem or concern rather than proactively establishing, documenting, and communicating best practices covering the operational spectrum.

Recommendations:

Recommendation #1: SCDOT should establish an experienced and representative team of personnel involved in the procurement and management of professional service consultants and charge the team with:

- Identification of operational best practices that should be standardized, and
- Development of a plan to accomplish development and implementation of those selected standards.

Recommendation #2: SCDOT management should provide their support and the organizational resources to facilitate development and implementation of operational standards recommended by the team charged with the identification of needed agency standards.

Development, documentation, and implementation of agency best practices require departmental leadership and support. Management's guidance is essential to ensure that the appropriate personnel and resources are available for development and their support is vital to facilitate implementation.

Operations Manual for Procurement and Contract Management

Develop a comprehensive operations manual for consultant procurement and contract management in order to stabilize the process, identify current practices/responsibilities, serve as a resource for new personnel, act as a first step towards a training program, and serve as a vehicle or basis for changes/improvements.

Overview:

An operations manual for procurement and contract management of professional services should serve as a reference and contain sufficient detail for each step of the procurement and management process and identify the roles and responsibilities of those involved. The manual should include a sufficient level of detail such that personnel unfamiliar with the organization's process and policy would be able to understand procedure, policy, and their responsibilities regarding each step. The manual should adequately address: a) the objective for each step of the process, b) a detailed description of the process and organizational policy, c) the personnel and departments involved, d) the roles, responsibilities, and authority of each person/department, e) forms and/or processing standards to be utilized/submitted, and f) the desired outcomes and performance evaluation metrics.

Operations Personnel Involvement in Development- Effective operation manuals are developed internally – by experienced operations and management personnel. These individuals know and execute the organization's processes, policies, and procedures on a daily basis. Many of these policies and procedures they most likely have helped to create and/or modify. As a result, they are in the best position to document what are considered to be the appropriate actions, or organizational norms, regarding execution at the operational level of the organization. The involvement and contribution of consultants in the development of operations manuals is often limited, simply because external consultants do not have the organizational knowledge to effectively and efficiently develop operational standards.

In addition, for an operations manual to be effective, the document should be developed by experienced operations and management personnel with the input from those whom it is intended to help/guide. The involvement of operational personnel throughout the organization enhances coverage and improves buy-in of the finished product. Development of an operations manual without input and buy-in from the ultimate users can make the establishment of a procedural baseline and the implementation of change more challenging.

Effective tool for New Employee Orientation- A detailed operations manual will steepen the learning curve of new operational personnel. It will effectively convey responsibilities and processes for procurement and contract management of professional services and increase the efficiency of their orientation and training. This can be very beneficial for departments with extensive procurement and/or contract management timeframes when new employees start work mid-procurement or administration of a contract. While the operations manual can serve as a *reference* for new employees

regarding the process and procedures, it should not be confused with a *training* manual which might include higher level material related to management skills or concepts.

Benefits:

Baseline for Training: Developing an operations manual is recommended as a first step in a three-step process to document, train and certify personnel involved in the procurement and contract administration process. The three steps are: 1) Establish an operations manual – commit to, and document process and policy and obtain buy-in, 2) Utilize the manual as a baseline to develop a training program that will enhance understanding of operational responsibilities, policy, and procedure documented in the manual, 3) Develop, or adopt, a certification program to confirm understanding and personnel development. The second and third steps will be discussed in their respective best practices but they are mentioned here to highlight the role the operations manual plays in implementing those practices.

Stabilize, Document, Reference: One benefit of a detailed operations manual is that it identifies and stabilizes policy, process, and organizational response. In its absence, the actions of operational personnel can be ad hoc, varied, disjointed, and inappropriate. An operations manual of acceptable practice provides a reference for the process and eliminates the “word of mouth” and inconsistent on-the-job training that typically exists without such a manual.

Creating a reference effectively stabilizes the process and will also serve as a vehicle for implementing change when the process is altered. Without such a reference, changes might not be relayed to all personnel involved in a timely or accurate manner. In addition to stabilizing the process, the manual establishes a process baseline or body of knowledge which can be reviewed, evaluated, and revised as improvements are needed.

SCDOT Approach/Philosophy:

SCDOT has a procedures (operations) manual, Department Directive 41 (DD41), for the procurement of professional services. The manual contains some detail regarding the procurement steps/tasks and personnel responsibilities during the procurement process. It typically addresses the “*what*” and “*who*” for procurement, but lacks detail regarding *how* policy and procedure is executed during procurement. In addition, documented policy and procedure during the contract administration is limited. Additional detail and documentation is warranted.

Another critical issue is that DD41 has not been effectively communicated and/or adopted by the organization. Implementation and individual knowledge and/or buy-in of DD41 are limited and inconsistent throughout the department.

Recommendations:*Recommendation #1: Complete development of DD41.*

Expand documentation of process, policy, and responsibility in DD41 so that operational personnel have a complete reference for both procurement and contract management of professional services consultants.

SCDOT should expand and finalize the current operations manual (DD41) to provide a comprehensive reference during procurement and contract management. Once complete, a training program should be developed and implemented to ensure understanding, gain buy-in, and serve as a baseline for future improvement. The development of a comprehensive operations manual is the first of three steps in the development of a training and certification program that would allow SCDOT to train personnel and implement changes to the procurement and administration process.

Recommendation #2: Effectively communicate DD41 to enhance organizational knowledge, gain employee buy-in, and align operational action during both procurement and management of professional services consultants.

In order to have a manual that defines and stabilizes the process, all those involved in the process must be knowledgeable of, and in agreement with, current organizational process and policy. This is essential to ensure consistency of action and appropriateness of response.

SCDOT should solidify agreement on the processes to be detailed in the operations manual before trying to implement the manual or provide training. This could be achieved through a designated committee or solicitations from those involved on changes to the current draft of DD41. Developing a process committee would also address how changes must be made and prevent counterproductive changes in the future. Development of a manual, with input and buy-in from all those involved, will promote operational efficiency and effectiveness and provide a baseline for training and possible development of a certification program.

Training & Certification

Establish a formal training program for contract managers, procurement personnel, and professional services consultants to communicate process and policy, gain feedback and buy-in, and stabilize operations. Once a training program is established, develop or adopt a program to verify (certify) participant's understanding and comprehension.

Overview:

Procurement and administration of professional service contracts is typically a complex and tedious process that requires significant administrative paperwork, varied personnel and management expertise within the DOT, and numerous external entities including the Federal Highway Administration, professional consultants, and subconsultants. To ensure an effective and efficient procurement and administrative effort, it is essential that the personnel involved have the requisite information and knowledge to execute their roles. Accomplishing that objective involves three distinct steps: 1) stabilization and documentation of organizational process and policy, 2) development and implementation of a training program, and 3) verification (certification) of personnel knowledge and comprehension.

The first step in the process is the stabilization and documentation of what the organization considers 'standard operation procedure', or best practice, for the process, policy, and management approach for each component of professional services consultant procurement and contract management. For most organizations, this normally takes the form of an operations manual that experienced managers within the organization have assembled to standardize and align individual and functional actions throughout the organization. (See the Operations Manual Best Practice for additional detail.)

Once policy and procedure have been established, the next step is to develop and implement a training program. A training program identifies expectations and requirements, defines roles, and establishes objectives. Initially, the training program should cover organizational policy and required procedure for execution of the various roles. External consultants and delivery partners should be considered for inclusion in this initial basic training on policy and process. As the training program matures it should be expanded to include management skills, best practices, and personnel development themes/topics. The training program should be regularly updated to accommodate operational, organization, or policy changes, improvements, and directives. It needs to remain a 'living' document that is relevant and applicable for the organization.

Once a training program has been implemented, validation of participant's comprehension and understanding is the next step. For most organizations, the first step of verification entails the development of a set of performance metrics to verify compliance and identify areas (or individuals) where additional training is required. As the organization's program expands, the next stage is the development of an internal certification program and/or the adoption of a third-party certification program. Internal certification programs are most appropriate to address knowledge of the organization's unique policies and procedures. Third party training programs and certifications, such as

those offered by Project Management Institute (PMI) and National Contract Management Association (NCMA), may be an appropriate choice for the organization to address general management skills and principles which are not unique to SCDOT.

Benefits:

Material collection: Establishing and documenting organizational process, policy and philosophy, identifies acceptable practice for all the individuals and delivery partners involved in the procurement and contract management of professional service consultant contracts. It promotes consistency, and enhances the efficiency and effectiveness of the organization.

Knowledge dissemination: Adoption of a training program circulates that knowledge and insight consistently throughout the organization and its delivery partners, and can facilitate personnel development. The final component of a training program, verification or certification, confirms understanding and recognizes individual achievement.

SCDOT Approach/Philosophy:

SCDOT is currently in the early stages of training development. A comprehensive operations manual has not yet been completed, documentation of organizational policy and procurement is limited, and implementation is often ad hoc. Training is largely completed on-the-job (OTJ) by the individual's supervisor and/or an experienced co-worker. This approach may have yielded an acceptable level of success when the organization was small and utilized a limited number of professional service consultants. However, current organization size and an increased volume of consultant contracts warrant the investment of resources in the development and implementation of a training program.

Recommendations:

Recommendation #1: SCDOT should expand DD41 to comprehensively document the procurement and administration process for professional service consultants.

SCDOT should expand the coverage and detail of DD41 so that it can serve as the agency's *operations manual*. It should be expanded to document 'standard operation procedure', or best practice, for each process, policy, and approach for each component in the procurement and contract management of professional service consultants (see the Operations Manual Best Practice for additional detail).

Recommendation #2: SCDOT should develop a training program for procurement and management of professional service consultants.

SCDOT has initiated development of a training module for contract managers. Once process and policy have been fully documented, the program should be expanded to a comprehensive effort that regularly offers focused training to all individuals involved in the procurement and management of consultants. This training should be offered at several levels which increase in depth and material complexity.

Recommendation #3: SCDOT should provide optional consultant training.

Ensuring that consultants understand the procurement and administration process will benefit the project and contract managers and ensure a smoother procurement and administration process. Providing training to consultants will allow them to understand what is expected of them and provides an opportunity for SCDOT to address common mistakes or problematic habits of consultants. This training would be ideal for new consultants who have done little or no business with SCDOT and will improve their procurement and administration performance.

Recommendation #4: SCDOT should offer operational personnel training for development of their management skills.

Subsequent to the implementation of Recommendation #1 and #2, SCDOT should consider expanding their training program to include management skills, best practices, and/or personnel development themes and topics. These training modules can be developed internally, or selected from the spectrum of procurement and management training modules available in the marketplace. For example, PMI and NCMA have programs that should be considered and in both cases these programs have a certification component.

Automation

Utilize automated systems for data, document, and project management in order to improve communication efficiency, allow automatic data capture, prevent redundant data entry, improve document quality, and reduce personnel needs.

Overview:

Automated systems utilize technology to streamline processes like procurement and administration where extensive documentation is required and multiple entities are involved. Automated systems can consist of data management tools, interfaces for consultants or DOT personnel, automatic and direct communication links and other resources. With the large amount of materials that must be relayed between the consultants, departments within the DOT and FHWA, automation can significantly simplify the process and improve the overall procurement and administration performance. Automated systems can be limited to use within the DOT or expanded to incorporate consultants. They can result in paperless processes which provide numerous benefits to communications and data management. Automated systems are ideal for handling the constant movement of project data from estimates, scopes, contracts, and invoices as well as the need to continually reference that data throughout the life of the contract because it allows for improved availability, handling and reliability of data. One example of such referencing is cost data used in invoices that must be referenced from the executed contract. With an automated system, the cost data from the contract can be automatically loaded into invoice templates during invoice development by the consultant. In addition, the data can be easily referenced by the DOT project manager while validating invoices.

Benefits:

Aids communication: With documents and materials in electronic format, communications can become faster and programmed to relay materials automatically. In addition, communications can be reduced because access to the materials through the use of shared databases can further improve data sharing within and outside the DOT.

Improves quality: Automation can reduce individual personnel variances or preferences in the procurement and administration processes. This leads to improved quality of the materials through a reduction in the opportunity and probability of error. In addition, automation allows electronic templates and formats to be utilized which can restrict users to entering only correct data or data types. Automation can also restrict the ability to develop or submit documents to ensure they are in accordance with contract schedules or deadlines.

Automatic document development: With the use of shared databases and standard templates, documents can be automatically generated from data captured in a previous task or stored in a database. One example of this is the pricing data from a contract that can be stored in a shared database. When invoices are generated, the pricing data can be automatically inserted into the invoice by referencing the database.

Reduces resource requirements: Increased automation reduces the personnel resources required for contract procurement and administration by eliminating or reducing simple tasks such as document processing and handling.

SCDOT Philosophy/situation:

At the time of this project, the SCDOT Professional Services Office is in the process of implementing project management software, ProjectWise, that will eventually lead to an automated, paperless procurement process. This software will utilize a database of historical pricing data that will be shared between entities in the department. It will also improve the access to documents by SCDOT personnel such as consultant proposals during the evaluation process. Consultants will be able to submit proposals and other procurement documents directly into the system for use by SCDOT. During administration of contracts, hardcopy documents are the standard and no automation is utilized or planned during this phase.

Recommendations:

Recommendation #1: SCDOT should expand the use of the project management software or another automated system to include invoicing and consultant evaluations.

SCDOT should use the current implementation of the project management software for procurement as the first of a two stage implementation. SCDOT should document lessons learned from the first stage and utilize the software or other automated system for invoicing and consultant evaluations. The following details two implementation recommendations of an automated system for contract administration:

- SCDOT should utilize an automated system for handling, approving, and paying invoices. Due to the path an invoice takes from development to payment, an automated system would significantly expedite the process, reduce the resources needed and improve the accuracy of the submitted invoices. The system would allow for a seamless and instant communication between the consultant, SCDOT project manager, and accounting department. The system could reference pricing data from the stored contract to ensure billing rates and other costs are accurate and that payment schedules are followed to reduce errors.
- SCDOT should incorporate consultant evaluations into an automated system that would allow performance metrics collected throughout execution of the contract to be automatically referenced in the evaluation. The system could also make evaluations easily accessible by the selection committee during procurement.

Contract Specific Procurement Plans

Develop contract specific procurement plans once the need for professional services has been identified in order to establish procurement deadlines, objectives, and a plan for resource allocation.

Overview:

Similar to other processes, procurement can benefit from planning because it provides guidance, expectations, and goals for a process that involves multiple entities and can take months to complete. Developing a procurement plan before starting the procurement process provides numerous benefits to those involved and can increase the efficiency of the process. Planning as soon as the need for professional services arises allows those who should be involved to be identified, a schedule and deadlines to be set, expectations to be relayed, and workloads to be planned. Some may view procurement as an established process that involves little change regarding the personnel involved or the time required. In reality, procurement of professional services involves numerous variables that can impact the time or personnel needed to procure individual contracts. The type of professional service, contract or payment method, and the size, location, or complexity of the project can all affect the time or personnel needed to procure the contract. These variables make contract procurement planning important, necessary, and beneficial.

Developing a schedule for procurement is an important part of procurement because it establishes deadlines and goals. Some DOTs only establish target dates to complete procurement. However, a procurement plan should be more detailed and include dates for milestones throughout the procurement. Procurement can be divided into stages such as: identification of need, evaluation and selection, negotiation, and execution which create effective milestones to include in a schedule. Establishing a schedule and identifying the deliverables or outputs that are required, helps to establish expectations for the personnel responsible for procurement.

The procurement plan will most likely be developed by an individual. However, the plan is most effective if it is distributed or communicated to all those that will be involved in the process in order to communicate the deadlines, expectations, and allow those involved to provide input and plan workloads. Some states publish planned milestone dates in the advertisement for proposals to give responding consultants an idea of when the contract is expected to begin and the timing of deliverables. This allows firms to balance their workload and understand expectations so that resource and/or time intensive tasks can be properly planned.

Benefits:

Establishes schedule, deadlines, and goals- With a plan in place and milestone dates set, the procurement staff are provided deadlines and goals for procurement. This provides motivation to complete tasks and a sense of reference for the steps that make up the process.

Relays expectations: Establishing a plan and identifying those to be involved communicates when they will be expected to contribute. Communicating with personnel involved before their contributions are

needed allows for them to balance workloads and will increase the chance that they will be able to effectively respond to procurement needs.

Allows for resource allocation planning: A procurement plan allows for those personnel and departments within the agency to plan their resource allocation. Tasks such as developing estimates and negotiating can be time intensive. Planning can improve the efficiency of procurement tasks as they move through the procurement process.

Depending on the procedures for identifying needs for professional services, creating a procurement plan months in advance can allow consultants to plan for potential work. This can provide departments with better quality selections, because consultants will be able to more accurately identify their expected workload (typically considered in consultant evaluation/selection) and their ability to take on additional projects.

Establishes performance metrics: In the Performance Metrics best practice, it is recommended that the time to procure contracts be monitored and evaluated. Establishing a procurement schedule during planning, permits comparison of actual performance with planned performance and provides a baseline for Measures of Effectiveness (MOE). The importance of MOE's is discussed in the Performance Metrics best practice.

SCDOT Approach/Philosophy:

Currently, SCDOT does not prepare and distribute procurement plans once the need for professional services is identified. The professional services office has a target procurement time of 6 months for all contracts, but does not regularly develop a plan that details the completion of each phase, or milestone, of the procurement process.

Recommendations:

Recommendation #1: SCDOT should establish milestone target dates in addition to the already established procurement completion goal.

SCDOT already sets a completion date for procurement (based on 6-month procurement duration) and identifies a commission meeting to have the contract approved. Working within that 6-month goal, SCDOT should establish milestone dates for each step/phase. A procurement plan should be developed by the professional service office staff with the requisite experience and knowledge to prepare an accurate plan.

Recommendation #2: SCDOT should communicate the procurement plan, all updates, and performance metrics to all personnel involved in the procurement process.

Once the procurement plan is prepared and the performance metrics to be monitored are identified, they should be shared with all personnel involved in the procurement process. During execution of a procurement plan, involved personnel should be provided regular feedback

regarding individual and overall procurement performance. In addition, recovery plans should be developed and communicated if progress falls behind initial project plans.

Indefinite Delivery (On-call) Contracts

Utilize indefinite delivery contracts for common and/or routine work types in order to take advantage of shorter and more efficient procurement and to provide flexibility to respond to funding issues.

Overview:

Indefinite delivery (ID) contracts are a contracting method commonly used by Departments of Transportation to evaluate and select multiple consultants for future work of a similar type. These contracts are in contrast to a project specific contract where a single consultant is selected for work on a specific project at the time of need. Consultants selected for an ID contract can be utilized for multiple projects as they arise without having to go through evaluation and selection process for each project. With ID contracts, the procurement process is significantly reduced because the following steps do not need to be completed repeatedly: identification of need, advertisement for need of services, consultant evaluation and consultant selection. The only steps that remain to be addressed are negotiation of price and/or scope for the project and execution of the contract.

Indefinite delivery contracts are often used for routine work types that are common and recurring professional service needs. These routine work types typically include geotechnical work, subsurface utility engineering, surveying, environmental, design, and construction engineering and inspections (CE&I). ID contracts are intended for relatively short and small valued project services. Dollar and time limits for ID contracts are commonly established. These limits are important to ensure that a competitive consultant environment is maintained and prevent ID contracts from being used on large or long-term projects that are more suited for project specific contracts.

While ID contracts are beneficial in many ways, they also must be utilized with several issues in mind. ID contracts create a qualified list of consultants that remains active typically for 2-3 years before the contract must be renewed, and the evaluation and selection process repeated. Due to the nature of ID contracts covering similar work types, it can become critical to consultants (specifically niche or small consultants that provide few services) to be selected for ID contracts. DOTs should consider the fact that ID contracts can reduce consultant competition if not utilized correctly. Limiting the ID contracts to a reasonable time helps to reduce this effect. In addition, DOTs should be aware of the number of consultants selected to ID contracts and the amount of anticipated work because the consultants, although not guaranteed work when selected to ID contracts, should be able to expect and make plans to receive a reasonable amount of work.

Benefits:

Provides flexibility in planning, managing workloads, and funding anticipated work: Professional service needs are often anticipated or planned. However, funding uncertainties or other project variables can impact the timing and/or scope of the individual project needs. These uncertainties make managing the rise and fall of workloads difficult. When professional services are of an appropriate work type for an ID contract, the project manager can utilize an ID contract to maintain flexibility to respond to funding and other specific project needs as they arise.

Reduces resources and time to procure: ID contracts reduce the time and resources required to procure the consultant because once an original ID contract is set up, work can be assigned without having to go through the advertisement, evaluation, and selection processes. This makes ID contracts ideal for needs that arise on short notice or for front-end services such as surveying or environmental that if not executed in a timely manner can hold up an entire project. The use of ID contracts also frees up procurement staff to handle large, complex, or unique contracts that are best suited for more resource intensive project specific contracts.

ID contracts are also ideal for small dollar contracts where a long procurement process would not be an efficient use of resources. Utilizing the procurement staff to advertise, evaluate, and select a consultant while procuring a small project specific contract is simply not economical for many departments and this uneconomical practice can be avoided with the use of ID contracts. In addition, small dollar contracts are less likely to be planned out far enough in advance in order to prevent delay from a long procurement process.

SCDOT Approach/Philosophy:

Currently, SCDOT utilizes two types of ID contracts for a number of different work types. However, one work type that SCDOT is not utilizing ID contracts for is surveying. Currently, all surveying services are conducted in-house due to the potential for project delays from the lengthy procurement process. The two types of ID contracts SCDOT utilizes are: 1) Oncall contracts which select multiple consultants for similar work types and 2) Oncall work order contracts which select multiple consultants and establish pre-negotiated work unit costs so that contract negotiations only require agreement on scope. When SCDOT procures oncalle basic agreements, a time and dollar value limit is established and applied to each contract. However, there are no maximums for those limits.

Recommendations:

Recommendation #1: SCDOT should identify maximums for the time and dollar value limits of ID contracts.

While SCDOT has used ID contracts and their limits responsibly, it would be beneficial for consultants and SCDOT to establish maximum limits for ID contracts to prevent future misuse or negative effects from ID contracts. Other states often limit ID contracts to a length of two to three years and a value of \$2-\$5 million.

Recommendation #2: SCDOT should maintain the utilization of ID contracts for appropriate work types and expand the use of ID contracts to include surveying services.

SCDOT should utilize ID contracts for surveying, which is a work type with characteristics that are appropriate for ID contracts. SCDOT has not previously utilized consultants for surveying services due to the length of time for project specific procurement. With the use of ID contracts, SCDOT should be able to consistently execute surveying contracts in an acceptable amount of time.

Contracting & Payment

Utilize lump sum contracts for projects with appropriate characteristics in order to mitigate project risk, enhance provider efficiency, and reduce administrative burden.

Overview:

The selection of professional services providers is qualifications based and providers are selected based upon their ability to provide the needed service(s). Subsequent to selection, scope is developed and price is negotiated. Therefore, project cost and project risk for the DOT and the service provider are dependent on the identified project scope, the negotiated cost for each service component, and the contracting method.

There are a number of different contracting formats that are used when contracting for professional services. Commonly utilized methods include cost-plus (with or without a guaranteed maximum price), unit price, and lump sum. Risk sharing, service provider incentives, and administrative burden vary based upon each contracting method.

Project Risk- On projects utilizing cost-plus contracting, the DOT retains the risk for: 1) project scope, 2) the productivity of the provider's equipment/systems and personnel, and 3) the ultimate cost of the services provided. If a guaranteed maximum price (GMP) is incorporated, productivity and cost risk for the contracted scope is shifted to the provider if the GMP is reached. In unit price contracting, the DOT retains the risk for scope (quantity) and final project cost while the provider assumes the risk for the cost of each unit of service provided. In lump sum contracting, the risk for cost of the identified scope is shifted to the provider.

With all of these contracting formats, effective stewardship of transportation funding is dependent on the DOT's ability to identify and control project scope and effectively negotiate the associated cost of the professional services needed for the project. Where project scope is difficult or impossible to define, cost-plus or unit price contracting may be the logical contracting choice. However, on projects where scope can be defined, lump sum contracting is often more appropriate if the contracting DOT has the in-house knowledge and expertise to accurately establish project cost. Typically, DOTs that have the confidence and organizational ability to do that are those that effectively capture and utilize historical data to enhance their ability to negotiate competitive pricing for professional services.

Provider Incentives- Another contracting consideration is service provider incentives. With cost-plus contracting, the provider has minimal incentive to improve operational efficiency and productivity because the risk for the cost of the service(s) is retained by the DOT. Even with a GMP, the cost risk only shifts to the provider when, and if, project cost exceeds the GMP. Conversely, with lump sum (and in some cases unit price) contracting, the provider has a distinct incentive to improve operational efficiency and productivity because project savings flow to the service provider – and ultimately the DOT as provider efficiencies lead to a reduction in the cost of future services.

Administrative Burden- Lump sum contracting also reduces the administrative and accounting burden during project execution. Invoicing and payment is based solely upon the percentage completion of each work item. DOT project and contract managers do not need to review detailed payroll and cost

supporting data that would normally accompany an invoice on a cost-plus contract. As a result, lump sum contracting reduces organizational cost to administer the contract.

In summary, appropriate utilization of lump sum contracting can mitigate project risk, enhance provider efficiency, and reduce administrative burden.

SCDOT Approach/Philosophy:

SCDOT currently has no stated policy on lump sum versus cost-plus contracting. Lump sum contracting is utilized on less than three (3) percent of service provider contracts. The organization views lump sum contracting as an attractive option only in situations where SCDOT wants the consultant to share or take on risk for work items that SCDOT does not have a great deal of expertise.

Recommendations:

Recommendation #1: Expand the use of lump sum contracting to shift risk, enhance provider incentives, and reduce the administrative burden.

SCDOT should reevaluate its current position on lump sum contracting. Current use of lump sum contracting on projects where SCDOT *does not have a great deal of expertise* may be inappropriate since the organization admittedly does not have the expertise/knowledge to establish project cost.

SCDOT should consider expanding the use of lump sum contracting on projects where project scope can be defined and on those projects where SCDOT has the organizational expertise to establish a competitive price for the needed professional services. A shift to lump sum contracting will place the risk for project cost on the service provider, encourage efficient and effective service provider operations that ultimately lead to reduced cost, and lower SCDOT administrative burden on professional service contracts.

Recommendation #2: Expand and enhance the capture and analysis of historical data to improve SCDOT's ability to establish (and negotiate) competitive pricing for professional services.

SCDOT currently asserts that the organization has internal expertise/knowledge on most project types. However, most of this expertise/knowledge is individual and not organizational knowledge.

Current operational policies and procedures do not establish, or support, the consistent capture and analysis of historical project data. As a result, SCDOT lacks operational feedback that could be utilized to effectively establish (and negotiate) competitive pricing on future professional service contracts.

To enhance organizational knowledge and expertise, SCDOT should evaluate current processes and policies and modify them to encourage the capture of detailed historical project data that could be utilized to enhance the procurement and execution of professional service contracts.

One step in support of that effort is the 'standardization' of pricing and contracting forms/standards to facilitate consistency of reporting from selection of the service provider to project closeout. See the 'Standardization' Best Practice for additional detail on this concept.

Recommendation #3: Train SCDOT personnel on the utilization of lump sum contracts.

While training and training topics are addressed in the “Training” Best practice, SCDOT should ensure that personnel responsible for identifying lump sum projects and negotiating and administrating lump sum contracts are aware of the differences in process, policy, and strategies compared to reimbursement type contracts. Knowing and implementing the differences is vital to protect the best interests of SCDOT and prevent the abuse of lump sum contracts.

Performance Metrics

Establish performance metrics that will allow the department to evaluate the efficiency and effectiveness of the procurement and contract management of professional services consultants.

Overview:

Measures of effectiveness (MOEs), or performance metrics, should be collected by the department so that the effectiveness and efficiency of contract procurement and administration can be monitored, evaluated, and improved. These MOEs should be structured to provide insight regarding performance for procurement, contract management, and consultant execution of the work. Without appropriate and comprehensive performance metrics, it is difficult to identify problems with procurement or project delivery. In the absence of effective MOEs, the organization may not even know that a problem exists. Establishing effective performance metrics is the first step towards evaluating current processes, identifying problems, and isolating areas for improvement. MOEs should be established to provide insight regarding the three primary performance areas for the acquisition and execution of professional services contracts – time, cost, and quality.

Performance metrics focusing on time should be established for procurement and contract execution. As with all MOEs, the first step is the identification of performance milestones. Milestone (performance metric) selection is important – they need to be selected to provide effective and timely feedback on performance. For example, collecting an overall metric for time of procurement (time to procure the contract from identification of need to contract execution) has limited useful value to the organization because multiple people and entities are involved in the procurement process. An overall procurement time metric does not facilitate identification of problems at the various stages in the procurement process. Conversely, collection and analysis of performance metrics for each procurement step allows the organization to isolate specific procurement issues and implement improvement precisely where needed. It is important to collect feedback in a manner that makes it useable to evaluate performance and promptly identify issues or problems. This is accomplished by tracking actual performance for milestones throughout procurement and execution of each contract.

In addition to evaluating the time to procure a contract, it is beneficial to evaluate the effectiveness of that procurement – i.e. was a qualified consultant selected? This can be accomplished by establishing MOEs that facilitate evaluation of the consultant's performance concerning cost, quality, and timeliness of contract execution. Many of these performance metrics flow from the professional service contract and MOE's should be chosen to provide timely and effective feedback on each consultant and departmental objective.

Evaluation of procurement and contract execution should be developed to provide insight regarding questions such as the following: Was a sufficiently detailed scope agreed upon? Was the estimate accurate? Was the schedule realistic? These considerations can lead to MOEs that monitor the accuracy of the schedule and estimate compared to the actual costs and time to execute the project. In addition

to the consultant evaluations, these types of MOEs will allow for procurement and contract management/execution to be evaluated and improved.

Benefit:

Identify areas of needed improvement: MOEs that reliably collect effective data will allow the department to evaluate the professional services procurement and administration process at a level of detail that permits problems (or successes) at each stage or specific area to be easily identified. With a higher level of detail, identifying the necessary improvements becomes easier and more efficient.

Provides quantitative feedback for internal and external uses: Detailed MOE's can allow for quantitative feedback to be collected at the departmental and functional level. Utilizing quantitative feedback can allow for consistent and objective evaluations which aid managers when implementing improvements.

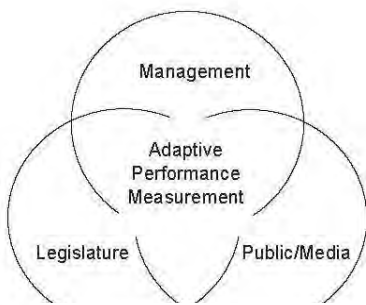


Figure 1: MOE Influences (2)

In addition to providing feedback for internal improvements, MOEs provide data that can be used by departments for self-reporting on their use of consultants to the public and politicians. This can be critical in states where the increased use of consultants must be justified. Departments that can show consultants are being utilized effectively (based on cost, timeliness, and performance) can improve public trust and demonstrate department accountability.

Figure 1 shows the entities that can influence the development of MOEs and utilize the results of MOEs for a department (2).

Establish departmental objectives and priorities: With the collection of MOEs and consistent evaluations, departments can begin to identify objectives and establish long and short term priorities for improvements in process or performance. Identifying objectives provides personnel with direction, meaning and a measure of accountability. It prevents contracts from simply being procured – but rather being procured in a manner that is cost effective, timely, and of acceptable quality.

Establish performance targets: Continued collection of MOEs will allow for performance targets to be set in order to achieve a consistent and effective level of performance at the department or personnel level. Identifying performance targets establishes a hard standard for personnel or departments to reach, which can be further used for job performance evaluations.

SCDOT Approach/Philosophy:

SCDOT recently established a performance target for the procurement of professional service consultants and has initiated collection of data on the overall duration of procurement, but the agency only collects data intermittently on the individual procurement steps. Performance metrics regarding cost and quality of the procurement effort are not collected for the purpose of evaluating procurement.

Consultant evaluations are used to evaluate performance during execution of the contract. The evaluations predominately collect qualitative data and the information collected is primarily used as a metric for consultant selection during the procurement of future work.

Recommendations:

Recommendation #1: Expand performance metrics to track time for each step of the procurement process.

One of SCDOT's major concerns has been the time required for procurement. This concern has driven some recent organizational changes and reinforced the need to monitor the overall time for procurement of professional services. SCDOT should expand the capture of performance metrics to each step of the procurement process to isolate problem areas, reinforce individual responsibility, and identify areas for the reduction in the time required to procure professional service contracts.

Recommendation #2: Expand the performance metrics to include cost and quality measures.

Except for a handful of MOEs collected during the 'consultant evaluation' process, performance metrics addressing cost and quality are lacking. For example, metrics that compare the negotiated estimates to the actual costs, initial scope to the final scope, and contracted (planned) schedule to the actual project time are not readily available and evaluated. Collection of this type of MOE could help in the monitoring and evaluation of current and past efforts and improve scope refinement, pricing, and forecasting on future projects and consultant contracts. Improving estimates and schedules during procurement can lead to fewer contract mods during administration as well as improved project planning. In addition, it would establish objectives for procurement personnel when developing and negotiating estimates and schedules.

Recommendation #3: Utilize the MOE results to justify the use of consultants.

SCDOT has been publically criticized for an increased use of consultants over the last decade or two and stands to benefit from an improvement in department accountability. Establishing MOEs, and performance targets relating to consultant contracts and how well the department meets those targets would aid the department in the justification of increased consultant contracts as well as improve the perception held by the state legislature and general public regarding the department's accountability.

Performance Evaluation

Implement an assessment policy that obtains feedback from all entities involved in procurement and administration including: professional service providers, contractors, and other interested stakeholders.

Overview:

Most organizations systematically evaluate the performance of their own employees and some regularly assess performance of key vendors and/or professional consultants. However, more progressive organizations have moved to multi-source assessment, or 360-degree review, with the organization's delivery partners. They often gather key delivery partners in 'Quality Circles' to provide clarification and obtain feedback, critique, and suggestions on policy and procedure. These organizations actively solicit assessment from vendors, professional service providers, contractors, and other interested stakeholders. They evaluate the performance of their external delivery partners and in turn request feedback from each regarding the organization's operational performance. They recognize that multi-source assessment can be a powerful tool to help guide administrative decisions, process, policy and operational improvement.

Evaluation provides an opportunity for performance and quality to be monitored, reported, reviewed and acted upon. Procurement and administration of professional services requires multiple entities to work together. In this inter-connected operational environment the performance of each entity likely has an impact on the performance of the other parties and overall project success. It is important for all delivery partners to be able to identify issues or problems affecting the quality and/or performance of individual delivery partners or the team as a unit. However, how data is collected is important for reliability and validity of the feedback. The process to collect and analyze feedback should be structured to promote confidentiality and obtain accurate feedback.

Benefits:

Multi-source assessment can be a very beneficial method of evaluating performance and the overall delivery process as well as identifying problems of individual team members. It can also help to isolate areas for improvement.

Performance assessment by the organization's external delivery partners encourages feedback from entities with a unique perspective. This input is often direct and reliable. It can help an organization to effectively identify operational strengths and weaknesses regarding process, policy, and/or organization. Solicitation of, and response to feedback from delivery partners can enhance team building, promote continuous learning, and be a positive force to improve the performance of the team.

SCDOT Approach/Philosophy:

SCDOT evaluates the performance of professional service consultants on a regular basis. This evaluation is completed by the Contract Manager and shared with the consultant. The performance evaluation is utilized in the selection process of future professional service work opportunities. SCDOT does collect

consultant feedback semi-annually through the Professional Services Office however; the setup is not anonymous and does not include feedback on the procurement process.

Recommendation:

Recommendation #1: SCDOT should develop a performance evaluation process that allows professional service consultants the opportunity to evaluate the SCDOT process, policy, personnel and organization.

State transportation departments often develop an outlet for delivery partners (consultants) to provide feedback to DOT management and personnel regarding department process and policy for procurement and administration of professional service consultants. This is frequently accomplished using quality circles and/or through development and implementation of a structured evaluation process to regularly obtain input. Considering SCDOT's present situation, the research team recommends that SCDOT take the following steps:

- 1) Organize a Quality Circle(s) with key delivery partners to clarify current policy and procedure, gain input on issues of concern, review/refine consultant and SCDOT performance metrics, and identify areas needing improvement. Consider holding these sessions on a quarterly or bi-annual basis.
- 2) Based on the feedback from the initial Quality Circle(s), develop and implement an evaluation system that can be used to regularly obtain confidential feedback from consultants regarding SCDOT policy, process, personnel, and organizational structure. When designing the consultant feedback process/system, take into consideration that consultants will likely be reluctant to provide constructive feedback to the agency (and operational personnel) if their input is not anonymous and confidential.
- 3) Act on the constructive feedback received from SCDOT's delivery partners. When appropriate, take action to address concerns and implement suggestions for improvement. Utilize, or develop, effective performance metrics to evaluate the impact of actions taken.

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Attachment B

Training Manual



South Carolina
Department of Transportation

DEPARTMENT OF TRANSPORTATION

The background of the title area features a large, semi-transparent blue seal of the State of South Carolina. The seal is circular and contains a central figure of a woman in classical attire, representing Liberty, holding a scroll. To her left is a palmetto tree, and to her right is a rising sun. The seal is surrounded by a laurel wreath. Text around the perimeter includes "SOUTH CAROLINA" at the top, "SPES BONA" at the bottom, and "1776" at the bottom left. The title "SCDOT Contract Manager Training Manual" is overlaid in white, bold, sans-serif font on the seal.

SCDOT Contract Manager Training Manual

Clemson University

Contents

Introduction	1
Background	1
SCDOT Personnel Involved.....	3
Professional Services Office	4
Legal Office	4
Office of Contract Assurance	4
FHWA	5
Contract Manager Communications/Ethics.....	5
Relationships and Ethics	5
Public Communications	6
Project/Team Communications	7
Professional Services Contract Procurement and Administration.....	8
General Information	8
Determination of Consultant Needs.....	8
Procurement and Administration Policy.....	8
Contract Types	9
Contract Manager Manual Format	12
Requests for Professional Services	13
Task 1: Completion and Submission of Engineering Package A.....	13
Tasks 2-4: Director, Chief Engineer & Deputy Secretary Approval of Package A	16
Task 5: FHWA Approval.....	17
Tasks 6-8: RFP and Advertising	18
Tasks 9: Proposals	19
Evaluation and Selection.....	20
Task 10-11: Evaluation	20
Tasks 12-13: Notification and Approval.....	24
On-call and Work Order Contract Modifications.....	25
Contract Negotiations and Execution	26
Negotiations.....	26
Negotiation Basics.....	26
Negotiation Strategy.....	27
Task 14: Negotiations Begin.....	28
Task 15: Pre-award Audits	29
Contract Payment Method	30
Task 16: Scope Development.....	31
Tasks 17-18: Develop Estimates.....	33
Tasks 19-20: Collect Estimates.....	36
Task 21: Negotiate the Estimate	37
Task 22: Finalize Negotiations.....	39
Execution	41

Tasks 23-25: Contract Development.....	41
Tasks 26-30: Contract Signatures and Approvals.....	42
Tasks 31-34: Contract Execution.....	43
Contract Administration	46
General.....	46
Project Meetings.....	47
Invoices	48
Payment.....	51
Progress Reports.....	53
Contract Modifications	54
Performance Evaluations.....	56
Final Payment and Closeout	57
Construction.....	58
Records and Retention	59
Appendices.....	60

INTRODUCTION

The purpose of this manual is to detail the procedures and responsibilities of the SCDOT Contract Managers associated with professional services consultant contracts. This manual is intended to provide consistency across the Department in following procedures mapped to DD41, defining responsibilities, and ensuring policies are met in regards to procurement and administration of consultant contracts. In addition, this manual is to serve as a training resource for new contract managers.

Background

Professional services, defined as architectural and engineering services, require unique procurement procedures when federal funds are involved due to the Federal requirement that Qualifications Based Selection (QBS) be utilized as stated in the Brooks Act. In addition, states have similar codes and laws that require QBS on state funded projects. The idea behind using QBS versus price based selection is that the professional services required throughout a project are a minimal cost compared to the construction tasks. With QBS the past experiences, qualifications, and ability to perform professional services by the consultant is more valuable to the project versus the cost of those services due to their large influence on other phases of the project or the project quality. For example, professional services include preliminary design where plans can be altered in order to obtain substantial construction savings. Another example is construction inspections that ensure the quality of the project is achieved as construction is carried out. These examples demonstrate why the provider's performance or qualifications is the focus of the evaluation rather than the cost of services.

The Federal Acquisition Regulations (FARs) further outline how the Brooks Act affects the procurement of Federally Funded professional service contracts. The following is a list of sections of FARs and US codes related to QBS (Compiled from DD41 and listed in the Appendix):

- *23 Code of Federal Regulations 1.3*
- *Title 23 United States Code § 112*
- *Title 40 United States Code, Chapter 11§1101-1104*
- *23 Code of Federal Regulations, Part 172*
- *48 Code of Federal Regulations, Federal Acquisition Regulation (FAR)*
- *49 Code of Federal Regulations, Part 18*
- *49 Code of Federal Regulations, Part 19*
- *FHWA Order 4470.1A*

If strictly SC state money is used for a project then only SC laws, codes, and regulations need to be followed. However, it is important to remember that if funding sources (Federal versus State) change after procurement begins, redoing the procurement process might not be feasible and could create a problem; because of this some states have aligned their procurement requirements to match FARs in order to prevent this from occurring. The following are the SC codes related to professional service contracts:

- *Title 57, Code of Laws of South Carolina, 1976 as amended*

- *Section 11-35-710(1), Code of Laws of South Carolina, 1976 as amended*

Recently SCDOT has increased the use of consultants in order to meet tight project schedules, obtain unique expertise, and to manage the fluctuations in workforce demands. In fiscal years 2009 and 2010, SCDOT awarded consultant contracts totaling \$151 million and paid consultants \$43.7 million for their work (Consultant contract balance, SCDOT 2011). These amounts represent the importance of the Contract Manager's role in properly procuring and administrating large volumes of contracts. Typical professional services that utilize consultants in SC are: Geotechnical, photogrammetry, land surveying, general engineering services (hydrology, structural, roadway), construction engineering and inspection (CEI), environmental (permitting and NEPA), subsurface utility engineering (SUE), and traffic engineering.

SCDOT Personnel Involved

Contract managers will work with several other departments and personnel that have a significant role in the procurement and administration of consultant contracts. This section outlines the other departments involved in the process, their roles, and the position titles of the personnel responsible in those departments. A list of acronyms used throughout this manual is detailed in Appendix L. Figure 1 shows an organization chart outlining the departments involved in the procurement and administration of consultant contracts.

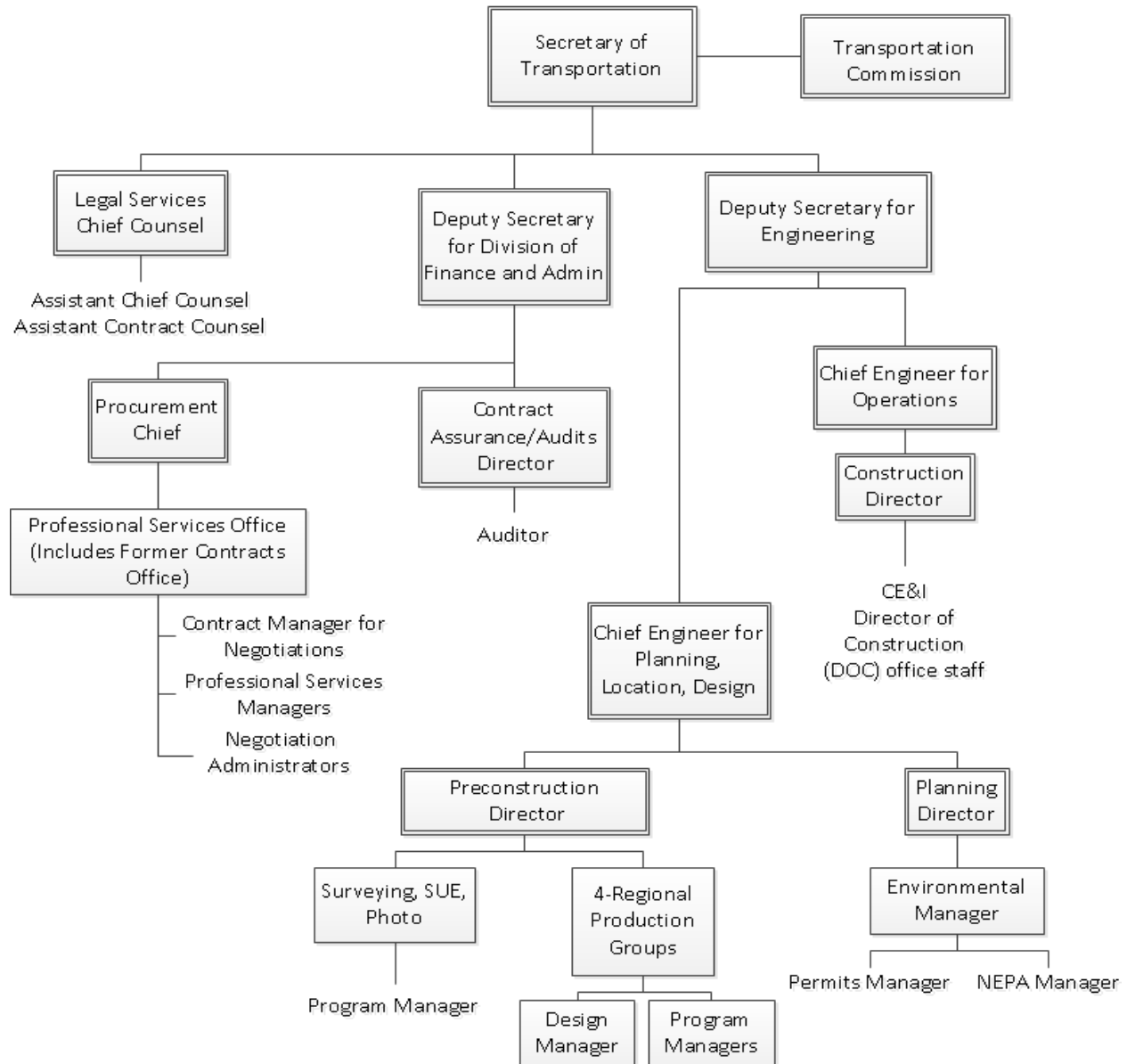


Figure 1 Organization Chart

Professional Services Office

This office is under the Chief of Procurement and is made up of Professional Service Managers (PSM), Negotiation Administrators (NA) and Contract Managers for Negotiations (CMN). The purpose of this office is to assist the contract managers in the administrative responsibilities during the procurement process in order to allow CMs to focus on the engineering work in their disciplines. In addition, the office is responsible for providing oversight and guidance to ensure conformance with procurement related law, regulations and policies. One PSM, and one CMN will be assigned to a contract to assist in the procurement stage and all contract types will require involvement from the professional services office. The PSM assigned to the contract will be responsible for administration tasks from the development of the advertisement until negotiations with the selected consultant. The CMN will then take over administration responsibilities related to negotiations until execution of the contract. Their roles and responsibilities in procurement will be further detailed in this manual. Job descriptions for these positions can be found in Appendix A. The NA assists in the negotiations including scope and estimate developments and takes parts in the actual negotiations with consultants to ensure proper process is followed.

The former Contract Services Office has been combined with the Professional Services Office. The Professional Services Office also maintains records on previous contracts to be used as references, reviews contracts to ensure that they are fair and reasonable, and determines the needs for audits when applicable.

Legal Office

The legal office is available during the procurement process to provide legal advice and opinion on procurement issues. If a contract template is revised or contract terms or conditions change, the legal office reviews them to make sure federal and state laws are still being met. In addition, whenever a contract is not followed or laws change the legal office becomes involved in the contract documents and procurement procedures.

Office of Contract Assurance

The Office of Contract Assurance (OCA) is responsible for performing audits of third party contracts. Using a risk assessment process, Architectural and Engineering (A/E) consultants are subject to the following:

- Annual reviews to verify consultants have acceptable accounting systems, Certified Federal Acquisition Regulation (FAR) compliant indirect cost rates (overhead), and are financially responsible.
- Cost reimbursement audits of A/E consultant contracts.
- Work paper reviews of CPA completed A/E Consultant indirect cost (overhead) rate audits.
- Audits of A/E Consultant indirect cost (overhead) rates.

Pre-award audits of cost proposals or specific items of proposed costs are also performed as requested by the Professional Services Office.

FHWA

If federal funds are involved in a project the FHWA South Carolina Division, whose office is in Columbia, will have to approve several documents throughout procurement as outlined in the FHWA/SCDOT Stewardship and Oversight Plan. This approval process will be detailed in this manual.

Contract Manager Communications/Ethics

This section will outline issues related to communications the CM might encounter during the procurement and administration process. Ethical issues, communications with the public and consultants are covered in this section.

This section has been included in the manual in order to stress the importance of the CM to recognize and always consider the magnitude and impacts their communications can have on the SCDOT. Through the CM position the state of SC and the SCDOT are represented, often in high impact communications such as negotiations with consultants that can result in SCDOT being obligated to significant responsibilities. These communications can also occur in less formal settings such as through email discussions that are no less significant. In addition, the CM will be presented situations where high profile communications will be made with such entities as the media, consultants, public groups and politicians. Through these communications the CM must recognize that they are representing SCDOT and provide well thought out responses that hold the best interest of SCDOT.

Relationships and Ethics

Throughout the procurement and administration of consultant contracts, SCDOT personnel's contact and relationship with the consulting community must be conducted in a manner that ensures SCDOT complies with state and federal laws, maintains public trust, and remains a good steward of public funds. In addition, ethical behavior is needed to ensure the agency fosters a fair and competitive consultant community which serves the interest of the state. The timing, content, and context of communications and actions by SCDOT personnel all must be appropriate when dealing with consultants and should extend to every interaction, including emails and phone calls.

SCDOT's working relationship with consultants can be more heavily observed and at times scrutinized than other public agencies. This may be due to historical issues with the department and/or to the large sums of money (tens of millions of dollars annually) involved. Regardless of the reasons, CMs play an integral role in the procurement and administration of consultant contracts and thus a major role of ensuring that SCDOT maintains ethical business practices.

CMs work with consultants using public funds and the public expects SCDOT personnel to serve the interests of the public. While this might seem like a simple concept, CMs should realize that it can be easy to find themselves in a questionable situation, even with the best of intentions. In other words, just because you are not doing something wrong does not mean you are not in a position that makes you appear to be doing something wrong. CMs must realize that questionable situations are often times a gray area and not easily recognized.

According to the South Carolina's Ethics, Government Accountability, and Campaign Reform Act of 1991, as amended, offering, giving, soliciting, or receiving anything of value to influence action of public employee is specifically prohibited under sections 8-13-790, 8-13-705, 8-13-720. Further, public employees are prohibited from receiving kickbacks, and offering, soliciting, or receiving money for advice or assistance from the proposers under sections 8-13-790 and 8-13-720. The SCDOT may rescind any contract and recover all amounts expended as a result of any action taken in violation of these provisions.

Some unethical actions such as improper gifts would seem to be obvious. However, CMs can develop a close relationship with consultants throughout the administration of a project and seemingly minor or insignificant exchanges (meals, football tickets) can easily be presented even with good intentions. Due to the CMs role in the evaluation of consultants and negotiations during the procurement process, accepting gifts from consultants (even with the best of intentions) can be viewed as unethical behavior.

The CM and all evaluators are to avoid conflicts of interest by withdrawing from any selection if any proposal involves organizations where they, their spouse, minor child, or partner have a financial interest; where they are an officer, director, trustee, partner, consultant, or employee or otherwise similarly associated member of the organization to be evaluated; where there exists any arrangement concerning their prospective employment, financial interest, or other similar association with the organization to be evaluated; where they have provided technical assistance to the proposer in the preparation of its proposal; or where they are a supervisor of, or supervised by, anyone who is subject to one of the above mentioned items.

Other situations that CMs must consider, and should avoid, are dealings with family members or relatives or providing information to consultants about other consultant's projects, contracts, or proposals. CMs should be cognizant of their appearance and impact on the public perception of the department and must be aware of their actions to ensure that the public interest is being served throughout the procurement and administration of professional services contracts.

Public Communications

Due to the nature of SCDOT projects, contract managers will receive communications and requests from the public regarding up-coming or current projects. It is important for contract managers to understand that any communications they make will be considered the SCDOT's view and representative of the department. Contract managers should be cordial but aware of who is requesting information and the reason or intentions. Examples of who might contact contract managers include:

- Neighborhood/Homeowner Associations
- Environmental Groups
- Individual Citizens
- Media-TV stations or newspapers
- Local stakeholders-city or county politicians
- State politicians

Contract managers should be mindful of the information given out and should refer any atypical requests to supervisors. Because SCDOT is a public agency and employee responses to media requests represent the entire department no matter how trivial the comment or topic, requests from the media

should be handled with care and referred to supervisors to ensure an appropriate response. (These statements should NOT be portrayed as SCDOT policy but rather the work of the research team.)

In addition to communications with concerned groups, requests can be made for contract managers to attend meetings with these groups. Contract managers must be mindful of the time and cost associated with attending and traveling to meetings and the importance and relevancy of the meeting. Expenses for these meetings might not be in a project budget and the time and expenses must be appropriated from some task. Therefore, it is best for CMs to review meeting requests with a supervisor before agreeing to obligate project costs.

Project/Team Communications

CMs will receive communications from other consultants or sub-consultants requesting information regarding a number of topics. These requests might be from consultants regarding a project or from consultants asking about other consultant teams. CMs should consider the content of the request before relaying information to an inquiring consultant or sub-consultant. A few examples of common questions for contract managers from consultants and guidelines for response:

- A consultant calls asking about project details on a contract of which the inquiring consultant is not a part of. *The CM cannot discuss details of a contract with anyone that is not a part of the contract.*
- A sub-consultant on a contract that is being executed calls to see if the prime consultant has received their latest payment because he/she has not been paid by the prime. *The CM/SCDOT is not responsible for paying or ensuring payment of sub-consultants. That is an issue between the prime and sub-consultants, and the CM should simply explain.*
- A sub-consultant on a contract that is being executed calls the contract manager to discuss or ask about a task detail. *With the exception of sub-consultants responsible for the NEPA task, the CM should not make any decisions with a sub-consultant without the prime. The prime and sub have an agreement and the CM should always refer questions from a sub to the prime or solicit the prime's input.*

PROFESSIONAL SERVICES CONTRACT PROCUREMENT AND ADMINISTRATION

General Information

This section details general information not associated with a single task or phase of the procurement or administration process. This information also assists in the user's understanding of the manual and what leads to the use of professional services.

Determination of Consultant Needs

Professional services are required for the execution of many SCDOT projects. Determining what services or tasks will be completed in-house or procured through consultants is the responsibility of each department director or manager. This decision is typically determined when the approved project lists for the planning period are determined. Personnel responsible to determine consultant needs include Regional Production Group (RPG) Engineers and Design Managers. For Construction Engineering and Inspection (CE&I) services, the District Construction Office typically determines the needs of the Resident Construction Engineers (RCE). Needs are determined based upon SCDOT workload, project complexity, equipment required, or personnel expertise. Once consultant needs are determined the CM will be assigned and the procurement process can commence as necessary to meet the requirements of each project or program.

Procurement and Administration Policy

SCDOT policy for the Procurement and Administration of Architectural and Engineering Services has been documented by Departmental Directive 41 (DD41) which was first issued on July 30, 2008 and subsequently revised October 3, 2011. This Directive details the procedures in addition to the roles and responsibilities of the personnel involved in the procurement and administration process from the determination of need through project completion.

A primary consideration for the development of DD41 was to foster the efficient and consistent procurement and administration of consultants for professional services throughout SCDOT. The policies documented in DD41 address the following key components, or phases, of the process:

- Request for Professional Services
- Advertisement and Receipt of Proposals
- Consultant Selection
- Contract Negotiation
- Contract Execution
- Contract Administration

DD41 also identifies the individual tasks that must be accomplished for each one of these key phases of the procurement and administration process. All SCDOT personnel involved in the procurement and/or administration of professional services contracts should become familiar with DD41 in its entirety.

Because of a Contract Manager's central role in the process, it is imperative that the CM gain a complete working knowledge of this Departmental Directive.

Contract Types

There are three (3) different types of professional service contracts utilized by SCDOT: Project Specific, On-call, and Work Order. In addition, another contract type NOT utilized by SCDOT but utilized by other states is the Multiphase contract. The decision regarding contract type is typically the responsibility of the appropriate Director, Department Manager or Regional Production Engineer. Contract types and common uses for each for the SCDOT are as follows:

Project Specific Contract: These contracts are for projects that have a specific budget, time, and site. These contracts are procured on a project by project basis and consist of a well-defined scope that includes schedule, budget, and deliverables. Project specific contracts will last the duration of a project and can receive time extensions and funding increases through the use of contract modifications (contract mods) after the contract is executed. No additional services can be added after initial scope has been specified for project.

Typical services that utilize project specific contracts are; General engineering/design services and turnkey CEI services. Project specific contracts establish limits of time and \$ value before the contract is executed.

Multiphase Contracts: Multiphase contracts are similar to on-call contracts except the basic agreement is with a single firm for a specific project. These contracts are used for long and larger projects that can be divided into phases such as environmental, preliminary design, surveying, etc. The contract is established with a single firm for a maximum contract amount and then as details for each phase arise, the work for the phase is negotiated and agreed upon. The agreements for work on each phase are similar to the contract modifications used with on-calls, but need to be within the scope of the basic agreement. Multiphase contracts can be considered a subset of Project Specific or Turn Key contracts where an entire project is contracted with a single consultant. In practice the design work for project specific contracts is typically negotiated and agreed upon after the completion of the environmental and NEPA work. This creates essentially a two phase contract where the environmental work is completed in order to finalize details needed to develop sufficient design scope that can then be negotiated for the second phase of the contract.

The benefit of multiphase contracts is that phases of a project do not have to be negotiated before adequate details are known. Similar to project specific contracts, this contract strategy reduces risk for both the consultant and DOT. In addition, multiphase contracts allow a shorter procurement time than if the project was broken into separate project specific contracts because the consultant is already in agreement and each phase only has to be negotiated before execution. Multiphase contracts also provide the DOT with flexibility because if a consultant has poor performance on one phase, the DOT can end the agreement before starting the next phase without having to follow the sometimes complex procedures for contract termination.

Tips & Recommendations:

Contract managers must be aware that the procurement process for project specific contracts can take 6-8 months or more. The procurement duration is extensive because advertising, consultant evaluation, selection, negotiations and execution must all be conducted for each project specific contract.

On-call Contract: On-call contracts are used to put the consultants and the department in agreement for similar non-specific work tasks on yet-to-be determined projects. An on-call basic agreement contract establishes an agreement between a consultant and SCDOT to conduct a broad scope of typical services in the future, for a period of up to 3 years and not to exceed a \$ value. Typically, SCDOT will have 3-12 consultants on an on-call basic agreement depending on the type of service. The on-call contract is setup by evaluating and selecting consultants and developing a broad scope of tasks. These contracts are considered zero dollar contracts. Once the on-call contract is setup, contract modifications (contract mods) are used to execute specific tasks on specific projects as they are needed. The fees and estimate for the task are negotiated during the procurement of the contract mod.

Typical services that utilize on-call contracts are: General engineering services (Hydrology, structures) and CE&I. The benefit of on-call contracts is that they reduce the time to execute a contract or contract mod because the consultants have already been evaluated and selected. Therefore, once a consultant need is identified, the project team only needs to negotiate and execute a contract modification.

Tips & Recommendations:

Contract managers must be cautious when using on-call contracts because the contracts will expire after a set time or when the maximum dollar value is reached, whichever occurs first. Contract managers also must make sure that contract modifications have an appropriate scope that coincides with the existing on-call contract and these modifications are not utilized to only simplify and/or shorten the procurement process.

Work Order Contracts: Work order contracts are a type of on-call contract that establish an agreement with consultants to do similar work tasks before they are needed but the difference is that work order contracts establish unit prices negotiated by the CMN and NA in the original agreement. Work orders are then used when the specific work is needed but only requires that the work effort be negotiated since the price has already been set. The basic agreement will be for up to 3 years and have a maximum \$ value similar to on-call contracts.

The benefit of work order contracts is that it prevents the need to evaluate and select consultants for each project and it also reduces the time for negotiations since the unit price has already been agreed upon which leaves only scope to be negotiated.

Tips & Recommendations:

Work order contracts are the most simple and quickly procured contracts. However, the CM must be careful not to try to setup work order basic agreements when appropriate units do not exist that can be

priced and used for multiple projects. Typical services that use work order contracts are those that are able to break work into generic units that can be priced. These services include geotechnical (/ft of borings), and SUE (/LF of utilities).

Procurement Process for Each Contract Type: SCDOT's procurement process has five primary phases that together contain thirty-four (34) individual tasks (as shown in DD41 in Appendix B). Procurement using Project Specific contracts requires the sequential completion of all 34 Tasks for each consultant contract spanning request for professional services through contract execution.

With On-call and Work Order contracts, SCDOT first establishes an original contract or basic agreement with multiple consultants for similar and common work types as needed on yet-to-be determined future projects. The identification, selection, and development of contracting conditions with each consultant for original on-call and work order contracts still requires the completion of all 34 tasks (similar to Project Specific contracts) except estimates and scope are not agreed upon. Once the original contract is in place, a contract mod (for on-call contracts) or work order (for work order contracts) can be executed "off" the original contract once a project need is identified. SCDOT will then develop or negotiate project specific scope and/or fees and execute a contract mod or work order to address the need for consultants.

Multi-phase contracts would follow the same steps as on-call contracts with an initial agreement being made after evaluation and selection of a firm. Then each phase would be negotiated separately as they progressed similar to contract mods.

Figure 2 shows an overview of the procurement process and the different steps required for each contract type. The on-call and work order steps highlighted in the Figure are for the contract mod and work orders used for specific projects-not the setup of the original on-call or work order contract which requires the same steps as a project specific contract.

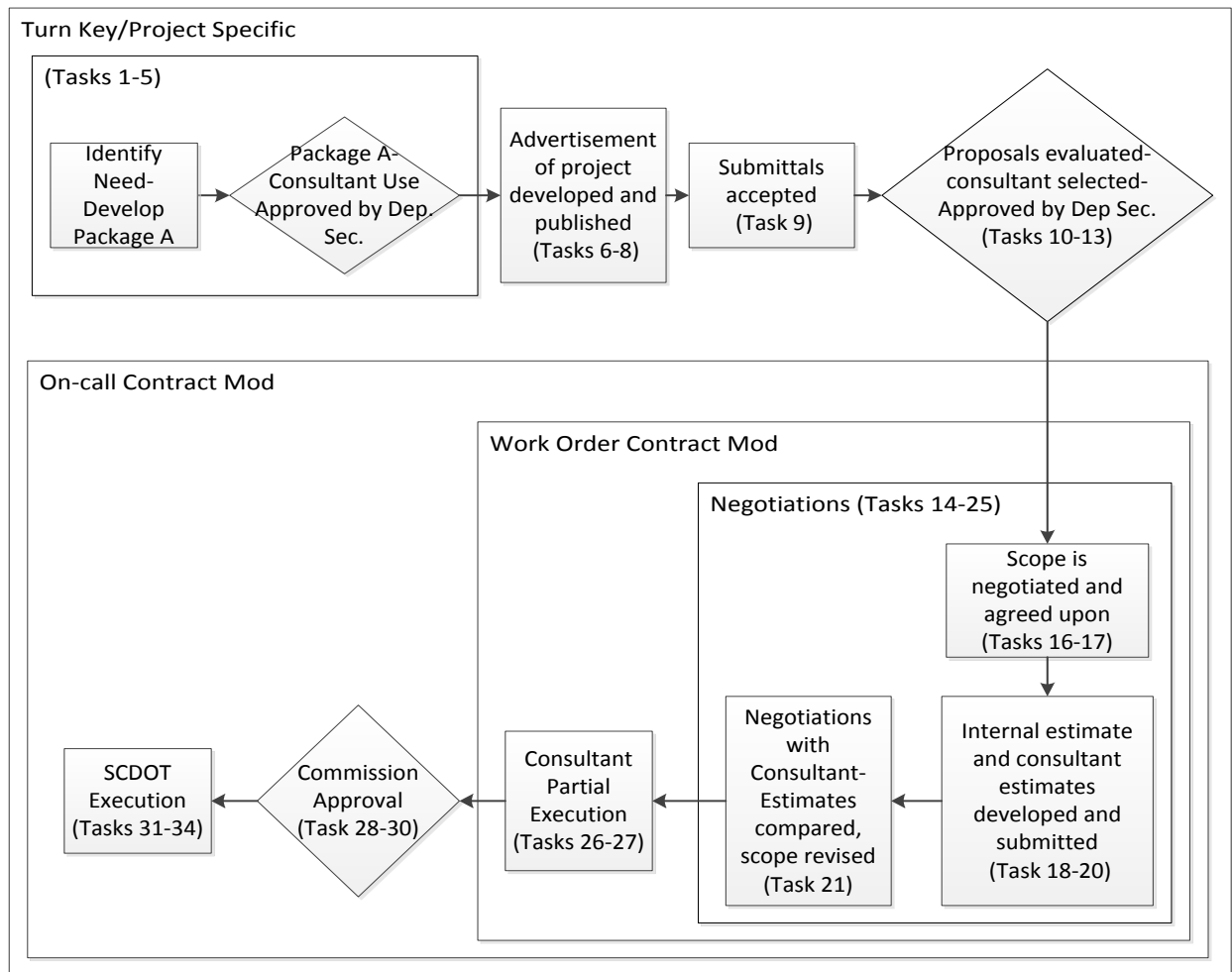


Figure 2 Overview of Contract Types

Contract Manager Manual Format

Departmental Directive 41 establishes SCDOT’s policies and procedures for procurement and administration of professional services contracts. The Directive establishes the framework for a Contract Manager’s actions and performance. Therefore it is referenced repeatedly throughout this Contract Manager manual.

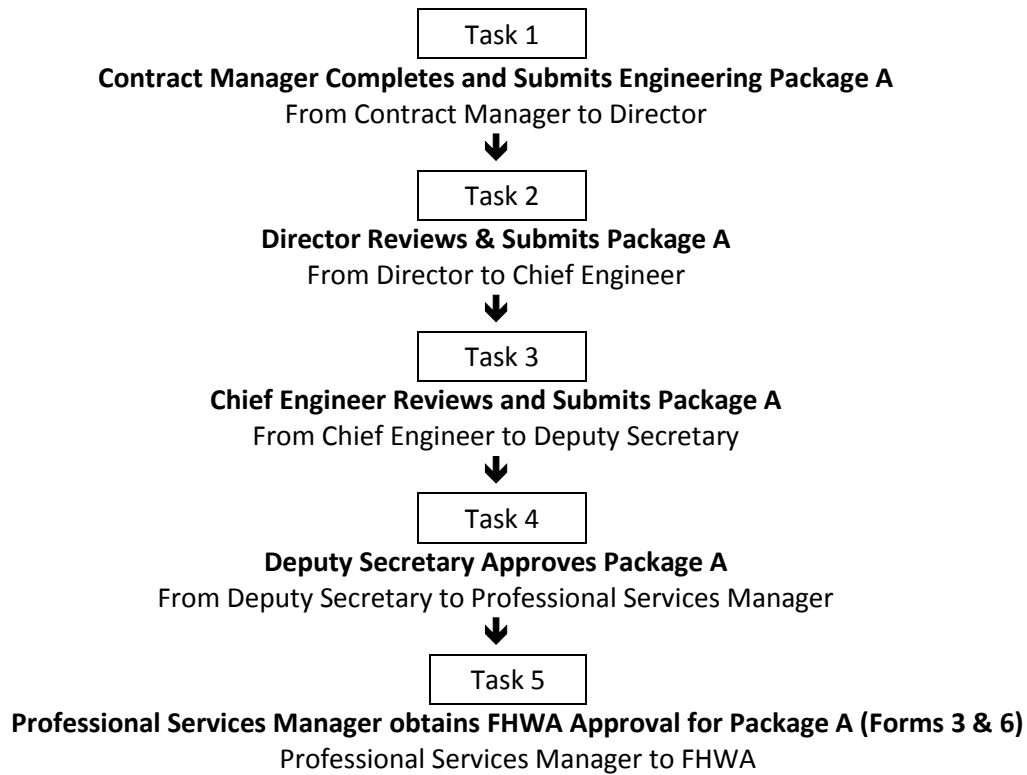
The following sections of this Contract Manager manual are arranged to coincide with the sequence/flow of the procurement and administration process and formatted to facilitate ease of reference. The procurement and administrative phases, and the relevant tasks for each, are presented in accordance with the following format:

- First, an overview of the phase and associated tasks is provided,
- Next, the policies, procedures, and responsibilities for each task are reviewed as follows:
 - Relevant excerpts from DD41 regarding the task.
 - Additional information related to the tasks not included in DD41, if applicable.
 - The Contract Manager’s role and responsibilities for the task.
 - Tips and Recommendations for execution of the CM’s duties.

Requests for Professional Services

Once a project need is identified a Contract Manager will be assigned to take ownership of the ensuing contract. Prior to commencing the procurement process, the CM needs to make sure the project has been approved in the State Transportation Improvement Program. The first step in the procurement process for professional services is to define the need and obtain approval from the appropriate individuals within SCDOT, and FHWA if needed, to proceed with procurement. The Tasks involved in this phase of the procurement process are as follows:

Requests for Professional Services Task Flowchart



Task 1: Completion and Submission of Engineering Package A

The first task in the procurement process is the completion and submission of Engineering Package A. Package A identifies the initial information required to have the need for professional services approved in order to allow the procurement process to begin.

DD41 Excerpts for Task 1:

All requests for professional services will utilize Engineering Package A (Package) and be completed, signed, and submitted by the appropriate Director. Package A consists of 7 forms:

Form 1: Summary of project-signatures/approvals

Form 2: Justification for professional services

Form 3: Preliminary Scope of Services

Form 4: Preliminary Estimate of man hours and fees

Form 5: Project location map
Form 6: Draft advertisement
Form 7: Recommended evaluation committee

The following are specific notes on filling out Package A:

Form 1 – All items on this form must be filled in. Most items are self-explanatory with certain items detailed further below:

- The “Name of Responsible Area” will be the specific office under the appropriate Director responsible for the work (RPG1, OMAR, etc.).
- The “Total Estimated Cost” will be a programming estimate only and may be based on similar professional services efforts or simply be a percentage of the estimated construction cost. No detailed estimates are needed at this stage.
- The “Contract Manager for Negotiations” will be the person designated to serve as the point of contact responsible for the contract negotiations from the advertisement through execution of the contract.

Form 2 – This form should clearly state the reason for using outside professional services. These reasons are typically either special expertise not available within the Department (Ex. Aerial Photography) or lack of resources within the Department based on current and projected workloads.

Form 3 – This is the Department’s preliminary scope of services which is developed internally. It should be general, but include all the major items required by the consultant, and should be of sufficient detail to begin scope discussions with the consultant once selected. A brief bulleted/outline format is acceptable.

Form 4 – The total cost on this form will be the same as that on Form 1 for “Total Estimated Cost”. Again, this cost can simply be a percentage of construction cost.

Form 5 – This should clearly show the project on a map or aerial photograph and graphically show the termini. It should also be reproducible in black and white.

Form 6 – This should follow the standard format for typical SCDOT advertisements for professional services. The person preparing the package will draft the advertisement giving careful consideration to the elements included. The most critical elements will include details on the specific services requested which should be consistent with the scope detailed on Form 3, and also the specific selection criteria and percentage of weight for each category. The person preparing the Package should adjust the selection criteria and percentages as needed based on the specific service requested, subject to the approval of those signatures on Form 1.

Form 7–The evaluation committee is typically 4-6 people with the CM being chair. Other members might be relevant designers, district staff, or personnel with similar project type experience.

Engineering Package A, Forms 1-7, are included in Appendix C.

Contract Manager Role:

With the exception of CE&I contracts, the Contract Manager (CM) is responsible for development of package A. The CM will make recommendations by drafting Package A, but final selection of the evaluation committee is at the discretion of the Director. Package A is the Director’s package which the CM fills out and submits for approval. The Director can require specific preferences or additional information be required in Package A’s.

For CE&I contracts, Package A is NOT prepared by the CM. The Director of Construction (DOC) office provides support to District Construction Engineers (the DCE) for procurement and prepares and submits Package A to PSM. The DOC acts as an agent for DCE because of geographic separation of DCE offices in relation to the SCDOT Headquarters where the PSM and other staff involved in procurement are located. A combination of the DOC and DCE offices select the Evaluation Committee which is made up of DOC and DCE personnel. The DCE serves as the chair of the committee.

During the development of Package A, it is advisable, especially with project specific contracts, for the Contract Manager to develop a preliminary schedule for the entire procurement process. This schedule is typically developed based on durations for the various phases and tasks, and subsequently converted to specific dates during procurement and contract execution. Development of a preliminary plan establishes expectations and requirements for all parties involved (including NA and CMN) to meet the procurement timeframe. The “Total Estimated Cost” is not a detailed estimate. Rather it is a programming estimate only and is based on similar professional services efforts or simply as a percentage of the estimated construction cost. Should the CM not have the requisite knowledge or experience to develop the preliminary estimate, they should consult their supervisor or knowledgeable department personnel.

Once Engineering Package A is completed, it is submitted to the Director for the first step in the approval process. The CM should provide a copy of Package A to the Professional Services Department and the NA in the Professional Services Office to alert them regarding the need. This will trigger the appointment of a Professional Services Manager to aid the Contract Manager in the procurement process.

Tips and Recommendations:

Follow the Requirements/Suggestions of DD41: Departmental Directive 41 provides detailed insight regarding the requirements for completion of Package A. The CM is encouraged to follow them.

Utilize SCDOT Personnel Experience: The information in Engineering Package A must be complete and accurate to obtain approval to proceed with procurement. To facilitate that effort, the Contract Manager is encouraged to solicit input from other SCDOT personnel with appropriate experience (as needed) to aid in the development of accurate and complete estimates, validation of project scope, and insight to provide support for the justification for professional services. The CM is encouraged to seek professional advice/consultation from the appropriate SCDOT personnel if it is needed! Consider an evaluation committee that encompasses a broad area of expertise (E.g. construction, preconstruction).

Timely Submission of Package A: Package A is the first step in the procurement process. For timely procurement of the needed professional services it is essential that Package A be completed and submitted expeditiously. For most contracts, the preparation and submission of Package A should take no more than 3-5 days. Remember – every day that submission is extended adds to an already lengthy process for procurement of the contract(s). The PSM office has a goal of procuring contracts from advertisement to execution in 6 months and in order to work with the PSM office on this goal, the CM

should develop a procurement schedule with designated milestones and dates in order to monitor the contract's procurement progress and achieve the goal.

Tasks 2-4: Director, Chief Engineer & Deputy Secretary Approval of Package A

Once Package A has been developed by the CM, several approvals must be obtained before procurement continues to ensure the use of professional services is appropriate.

DD41 Excerpts for Tasks 2-4:

The Package will be drafted by a member of the Director's staff, signed and submitted by the Director and approved by the Deputy Secretary. Package A is the preliminary approval to begin procurement and represents the first step of procurement.

Once Engineering Package A is prepared, the Contract Manager (or DOC staff for CE&I) submits it to the appropriate Director for review and approval. Once the Director approves Package A it is then sent to the Chief Engineer for review and approval. If approved by both parties, Package A is then submitted to the Deputy Secretary for final SCDOT approval. Should any of the three signatories not approve Engineering Package A, it will be returned to the CM as rejected, or for revision and resubmission for approval.

When Engineering Package A obtains final approval from the Deputy Secretary, an approved copy is distributed to the Contract Manager and the Professional Services Manager assigned to the consultant(s) contract. According to S.C. Code Ann. Section 57-1-370(E), 1976, as amended, the SCDOT Commission must give its prior authorization to any consulting contracts advertised for or awarded by the department and authorize the selection of consultants by department personnel. Since most projects have been approved by the Commission as part of the State Transportation Improvement Plan (STIP), those projects will not need to obtain Commission approval of Package A. The STIP is a list of projects approved by the Commission and includes funding for Preliminary Engineering (PE) and CEI work. Contracts not covered under the STIP will require Package A approval by the Commission before the RFP advertisement is posted.

Contract Manager Role:

The Professional Services Manager (PSM) will assist the CM in shepherding Engineering Package A through the SCDOT approval process. However, the CM is still responsible for timely procurement of the consultant contract and is expected to manage the process and ensure approvals are obtained. SCDOT approval typically should not take more than 2-3 weeks. If the CM is concerned about progress, after consultation with the PSM, he/she should advise the RPE and/or Director and solicit their support to expedite approval.

Tips & Recommendations:

Manage the Process: The Contract Manager should *manage* the approval process – not just monitor it. It is not uncommon for Engineering Package A to get delayed in the approval process. SCDOT personnel whose approval is required may be traveling, busy with other issues, or not aware of the priority nature

of your needs. If approval(s) is not progressing as needed, the Contract Manager should proactively work with the PSM and Director to resolve any issues. Don't just monitor progress – *manage* the approval process to ensure timely completion.

Remember – It's a Team Effort: Procurement of professional services typically takes months and your working relationship with the PSM during the procurement process is just beginning. Start it off right. Build a well-coordinated team. Develop and execute your plan. Communicate regularly to enhance the effectiveness and efficiency of the team and keep the team updated on project related events that might affect the schedule or execution of a project.

Task 5: FHWA Approval

For projects supported entirely or partly by Federal funds, the FHWA is required to approve the preliminary project scope and the advertisement. Therefore, Form 3 and 6 of Package A must be approved by the FHWA office before procurement can continue. Further details on FHWA and SCDOT approvals on projects consisting of Federal Funds can be reviewed in the Oversight and Stewardship Plan, which can be found in Appendix D.

DD41 Excerpts for Task 5:

Federal Highway Administration (FHWA) approval of the scope of work and advertisement, including selection criteria, is required for all full oversight and on-call projects. For all consultant projects that include development of the environmental document and final design, the SCDOT Environmental Office will include a request for approval from FHWA of the NEPA environmental document and as well as concurrence from FHWA with SCDOT's objectivity review.

Once approved by FHWA, the consultant will then be authorized to perform final engineering and design. Also, FHWA approval is required for any consultant contract where agency level management is included in the scope of services.

FHWA must approve the following from Package A:

Form 3: Approval of the preliminary scope of services for all full oversight and on-call projects and any consultant contract where agency level management is included in the scope of services.

Form 6: Approval of the advertisement and selection criteria for all full oversight and on-call projects and any consultant contract where agency level management is included in the scope of services.

Contract Manager Role:

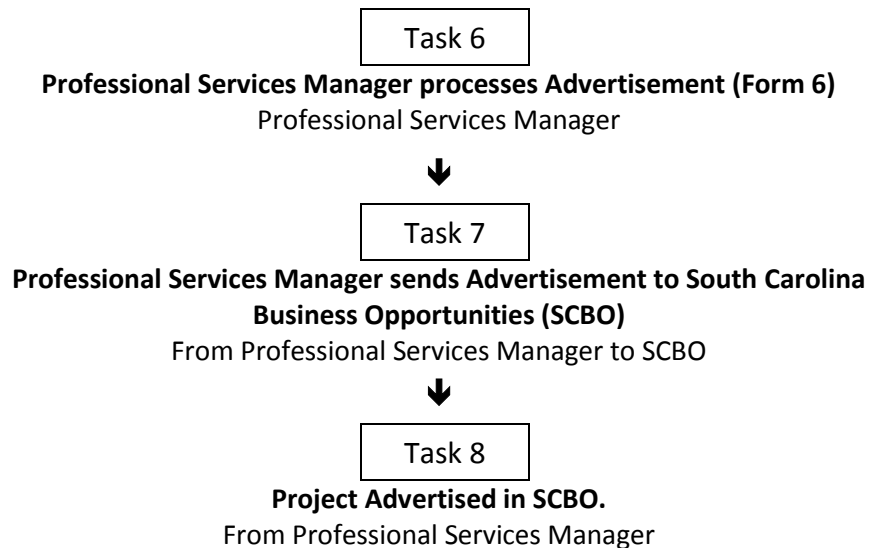
The Professional Services Manager (PSM) is responsible for submitting Engineering Package A to the FHWA for approval. The CM should be available to answer any questions that the FHWA may have regarding Package A.

FHWA approval should normally take 1-2 weeks depending on the FHWA's workload. If FHWA approval is not progressing as planned/needed, then the CM should consult with the PSM and, if necessary, contact the Director to solicit their support to expedite the approval.

Tasks 6-8: RFP and Advertising

Once SCDOT and FHWA (if needed) approve procurement of the professional service(s), the next step in the procurement process can commence. The Request For Proposal (RFP) for Professional Services developed for Package A must be properly advertised.

Consultants' list their qualifications and are evaluated based on a project specific proposal they develop in response to project information SCDOT publicizes. In order for consultants to submit proposals, a public announcement must be made to provide consultants with details of the services being sought by SCDOT. The advertisement is used to make the announcement and serves as a public request for proposal (RFP). It lists the information needed for the consultants to develop an appropriate, project specific proposal for SCDOT to evaluate so that a consultant can be selected.



DD41 Excerpts for Tasks 6-8:

Upon receipt of an approved Engineering Package A for professional consultant services, the Professional Services Manager will advertise the approved Request for Proposals (RFP, Form 6) in the South Carolina Business Opportunities (SCBO) at the next available publishing. Other publications may be used for advertisement where appropriate. Advertisement fees will be charged to the appropriate charge code as determined by the Contract Manager.

The Professional Services Manager will forward a copy of the advertisement as shown in SCBO upon publishing to the Contract Manager for their record.

A typical advertisement includes: Project scope, Project estimate, Contract type, Evaluation criteria, proposal submission deadline, SCDOT contact information and other project requirements. A sample advertisement is shown in Appendix E.

Contract Manager Role:

The CM is responsible for developing the draft advertisement in Package A. The PSM finalizes the advertisement and is responsible for posting the advertisement. While the advertisement is posted, the PSM will direct questions from consultants regarding the scope or other project details to the CM. These communications should be well documented and include the date, time, caller name/title, the question and the response. The PSM will formally publicize RFP clarifications and/or changes on the SCDOT website or other outlets as stated in the RFP. This is important because consultants with similar questions should receive the same responses. The CM is also responsible for providing the PSM with the appropriate charge code for the advertisement fees.

For CEI contracts, the DOC, not the CM, will communicate with the PSM in order to finalize the advertisement and take questions during advertisement.

Tips & Recommendations:

For CMs, the procurement responsibilities for this step have been shifted to the PSM. It is important that the CM maintain open communication with the PSM and relay or notify the PSM of any changes in the project such as funding issues that might affect the project.

Tasks 9: Proposals

The Professional Services Office will be responsible for receiving the proposals up until the submission deadline listed in the advertisement. Before the evaluation committee can evaluate the proposals, the proposals must be collected, processed, and distributed to the committee members. The PSM must check each proposal for compliance with mandatory submission requirements. If mandatory documentations for evaluation are not provided at the time of submittal (or has errors), proposals are rejected as non-responsive and not forwarded on to the evaluation committee. Not all mandatory documentations (such as non-collusion certificate, EEO) are material to the evaluation and therefore can be submitted at a later date without resulting in proposals deemed non-responsive.

Once the proposals are distributed the evaluation committee begins the evaluation process.

Task 9

Proposals received, reviewed and processed by the Professional Services Manager

From Prospective Proposers (Consultants) to Professional Services Manager

DD41 Excerpts for Tasks 9:

The Professional Services Manager will be responsible for receipt of all proposals, and will ensure appropriate personnel are available to receive the proposals by the time and date specified in the SCBO advertisement. The Professional Services Manager will document the time and date of receipt of each

proposal. The Professional Services Manager shall review all proposals for and document any omissions. The Professional Services Manager will keep one copy of all proposals for each RFP response.

Prior to, or at, the first proposal meeting the PSM shall ensure that each person who receives a copy of the proposals sign a confidentiality and conflict of interest statement. If a conflict exists with a designated member of the evaluation committee, then that evaluator will be released from the committee. The committee may continue with the evaluation without the member, or the evaluation can be postponed until another member is appointed to the committee.

The committee members receive the proposals and evaluation form before the evaluation meeting is held so that they may review them individually, and develop comments and questions to be discussed with the other members at the meeting. Specific evaluation instructions are listed in the next section.

Contract Manager Role:

The Professional Services Office will be responsible for the proposals but the CM will need to continue to manage the procurement process and begin preparation plans for the ensuing evaluation tasks.

Tips & Recommendations:

Plan procurement-The CM should have procurement scheduled and select which monthly commission meeting the CM would like for the contract to be approved. From the commission meeting date, the CM can plan milestones starting with the evaluation committee meeting. Relaying this planned schedule to the PSM and the evaluation committee will help the CM work to stay on schedule.

Seek Guidance- Non-responsive proposals shall be collected and kept by the PSM until the proposer is notified. After a reasonable number of days from receipt of notification by the proposer, the proposal should be shredded by the PSM. Since there are no set policies regarding retainage of proposals, if there are questions regarding non-responsive proposals the CM should seek guidance from the PSM.

Evaluation and Selection

Once the submittal deadline for proposals is reached, and each member of the evaluation committee has had an opportunity to review the submissions, the procurement process will continue with the consultant evaluation and selections step detailed below. The evaluation committee will evaluate the proposals based on the published criteria and select the most qualified consultant(s) for the contract.

Task 10-11: Evaluation

The evaluation of the proposals is when the qualifications based selection actually takes place and is the most critical step in the procurement process.

Task 10

Proposals distributed and selection criteria reviewed with Evaluation Committee
From Professional Services Manager to Evaluation Committee



Task 11

Evaluation Committee meets to review scores

From Evaluation Committee to Professional Services Manager

DD41 Excerpts regarding Tasks 10-11:

The Professional Services Manager shall be responsible for the following:

- *Distributing proposals, package materials, and evaluation forms (including selection criteria) to each Evaluation Committee member.*
 - o *Proposals*
 - o *Evaluation Form*
 - o *Performance Evaluation history (may include major sub-consultants)*
 - o *Published Advertisement (copy of SCBO Ad)*
 - o *Preliminary Scope of Services (Package A – Form 3)*
 - o *Any supplemental scope of services referenced in the SCBO Ad*
- *Scheduling Evaluation Committee meeting(s).*
- *Securing signed confidentiality forms from all Evaluation Committee Members (voting and non-voting).*
- *Attending Evaluation Committee meeting(s) and documenting the results.*

Prior to the Evaluation Committee meeting, each member shall review the proposals and draft their preliminary evaluation scores based on all selection criteria, proposals, and other documents provided by the Professional Services Engineer. The Professional Services Engineer shall provide the committee with an overview of recent selections, ongoing solicitations and current consultant workloads.

The Evaluation Committee Meeting will be run by the Chairman of the Evaluation Committee. The Professional Services Manager shall be in attendance to compile scores and ensure procurement rules and regulations are followed.

Before each Evaluation Committee member finalizes his or her scores, the Evaluation Committee shall discuss the proposals and all other documents. The Evaluation Committee may request additional information from the proposer(s) via written documentation and/or interviews. At the conclusion of these discussions, each Evaluation Committee member will finalize their scores, based on all selection criteria included in the approved Engineering Package A, to be compiled by the Professional Services Manager. Any proposal determined by the committee to be non-responsive will receive a default score of zero (0).

The Professional Services Manager will record the Evaluation Committee members' final scores as directed by the Evaluation Committee. The Professional Services Manager shall rank the proposals according to the average of the Evaluation Committee's final scores. The final rankings shall be recorded on the Professional Services Selection Evaluation Summary.

Evaluation Committee Ethics Considerations: The CM or the evaluation committee must not have; a) received a commission, percentage, brokerage, contingent fee, or other consideration from any proposer or other person to solicit or secure the contract, b) agreed to employ or retain the services of any firm or person in connection with carrying out the contract, c) paid, or agreed to pay, receive or agree to receive, from any firm, organization or person any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the contract, and d) either directly or

indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted proposals.

The evaluation criteria will be selected and approved in Package A and will be a combination of the typical criteria as follows:

- *Experience, qualifications, and technical competency of staff*- Usually staff resumes are included in proposals in response to this criterion which are evaluated with respect to the project.
- *Consultant understanding of project scope*- A unique or complex project might make this criterion useful to ensure the consultant understands what is needed.
- *Consultant past performance and sub consultant past performance*- Looks at the consultant's previous past performance evaluations which the PSM brings to the steering committee meeting for review. These performance evaluations are detailed in the Contract Administration portion of this manual.
- *Past performance utilizing Disadvantaged Business Enterprises' (DBE)*- Looks at past DBE utilization reports.
- *Familiarity of staff with SCDOT procedures and policies*- Attempts to determine the consultant's ability to develop work in compliance with SCDOT policy and procedures.
- *Availability of staff and ability to meet project schedule*- Looks at the consultants' project workload and at critical staff's availability to work on the project and ensure timely completion.
- *DBE utilization plan*- Each consultant should have a plan to utilize DBEs on the project.
- *Current SCDOT workload*- Looks at the volume of SCDOT work the consultant is currently working on.

For CE&I a standard set of evaluation criteria is used:

- Number of certified inspectors on staff; for CE&I contracts to ensure they have the appropriate staff available for the project.
- DBE utilization
- Availability of staff and ability to meet project schedule
- Qualifications, technical competency
- Past performance
- Understanding of scope

A sample evaluation scoring sheet is provided in Appendix F. Typical evaluation meeting attendees include the evaluation committee members, the PSM and other nonvoting personnel depending on the size and complexity of the project. Nonvoting personnel include FHWA and a Legal or Procurement Office representative. Committee members' final scores and rankings should list evaluators by # and not names.

Each member of the evaluation committee can write in the proposal or take separate notes, however, all notes are subject to Freedom of Information Act (FOIA). At the end of the evaluation meeting (once the proposal has been scored and ranked), the committee members shall give their proposals to the PSM. The PSM should advise committee members on what can be done with errors or omissions discovered when evaluating proposals.

Specific evaluation procedures include:

- Review proposals prior to the evaluation meeting
- Draft a preliminary score with supporting comments
- Do not discuss proposals with anyone prior to the evaluation meeting
- All questions should be referred to the Evaluation Committee Chairperson
- References will be checked by the PSM and provided to the Committee
- Each proposal will be discussed during the evaluation meeting
- Do not discuss specific scores
- Each member must score independently
- After discussion, members will finalize their scores and supporting comments
- Scores will be compiled and averaged by the PSM

The PSM will provide instructions for evaluations during the meeting.

Contract Manager Role:

The CM is typically the chair of the evaluation committee and will lead the meetings including the discussions on evaluations and scores. The CM should determine the amount of time needed for the evaluation committee to review the proposals before the meeting based on the complexity and size of the project and work with the PSM in setting the date for the evaluation meeting.

The CM is the chair of the evaluation committee and in addition to leading the evaluation meeting, should lead the discussions on each consultant's proposal. The CM should ensure that each proposal is thoroughly and consistently evaluated. The CM should take notes (subject to FOIA) of the deliberations which will be used for debriefing. A non-voting procurement office personnel or a legal officer should check that the comments are objective. Subjective notes, such as personal opinions and emotional comments, should not be included in the documentation.

A typical agenda for an evaluation committee:

- Review project scope
- Review criteria
- Review Proposals
- From PSM:
 - Past consultant performance evaluations
 - Consultants' current workload
 - Recent selections
- Finalize committee members' scores (should not be given orally)

The PSM will maintain administrative responsibilities before and during the meeting, and ensure procurement laws and procedures are followed; however the CM should work with the CMN during preparation for the meeting with items such as scheduling. The Chief Procurement Officer keeps all procurement records.

CM should not have communication with the consultants once the proposals have been submitted until a consultant is selected. Any necessary communication with the consultants during the evaluation period will be handled by the PSM.

For CE&I contracts the DOC representative will chair the evaluation committee, not the CM.

Tips/Recommendations:

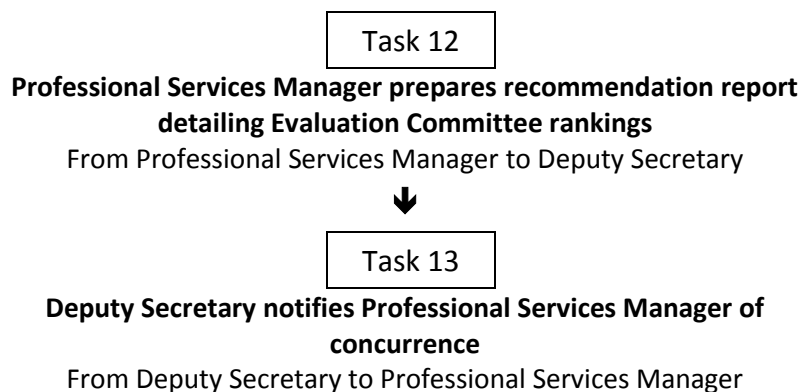
Come prepared-It is imperative that the CM come prepared to the evaluation meeting which includes being very familiar with each consultant's proposal and having their scores drafted. The CM must be prepared to answer questions from other committee members about the project in regards to consultants' qualifications. CM should notify appropriate SCDOT personnel to be on stand-by in case there is question about the technical scope of the project or NEPA.

Collect more information-If the project is unique and few SCDOT personnel have experience with such a project or if the project is complex, it might be beneficial to request the consultants to develop a more technical proposal or give presentations to the evaluation committee in order to better understand the consultants' capabilities, experience, and understanding of the project. Any projects that will require presentations or technical reports must have this clearly stated in the advertised RFP and detail how they will be considered in the evaluation criteria.

Proposals not selected shall be kept for a reasonable number of days after contract execution or debriefing and the PSM should collect the notes from the evaluation committee within an appropriate number of days of evaluation.

Tasks 12-13: Notification and Approval

Once the Evaluation Committee selects the consultant(s) the selection must be approved by the Deputy Secretary. Subsequently, all consultants that responded to the RFP must be notified of the selection. These steps can be expected to take 2-3 weeks.



DD41 Excerpts for Tasks 12-13:

The Professional Services Engineer will prepare a report to the Deputy Secretary summarizing the

evaluation process along with the Evaluation Committee's ranking. The report will recommend selection of the highest ranked firm. The report shall include:

- *Memorandum cover letter*
- *Scoring Summary*

Once the selection is approved by the appropriate deputy secretary, the Professional Services Manager will send notification letters to all firms indicating selection.

All requests for debriefings must be received in writing from the firm to the Deputy Secretary. No debriefings will occur until a contract is executed with the selected firm.

The Deputy Secretary will review the final recommendation report and approve or reject the committee's recommendation to begin negotiations with the highest ranked firm. If the committee's recommendation is rejected, the current solicitation will be terminated. The Deputy Secretary has the authority to cancel the project solicitation at any time, and may approve re-advertisement for proposals at a later date.

Consultants not selected have the right to request a debriefing after contract execution, which will be conducted by the PSM. The debriefing provides details only on the evaluation of the consultant requesting to be debriefed in order for them to improve future proposals. The Procurement and Legal Offices should be represented at each debriefing. Once Task 13 is complete, the Contract Manager for Negotiations (CMN) from the Professional Services Office will take the lead support role to the CM.

Contract Manager Role:

The PSM is charged with completing these tasks. However, the CM should maintain communication with the PSM in order to stay aware of the progress and to be prepared for the ensuing negotiations. The CM is still responsible for timely procurement of the consultant contract and is expected to manage the process throughout.

On-call and Work Order Contract Modifications

On-call and work order contracts start with the development of the basic agreement or original contract which establishes the list of qualified consultants to be used for future contract mods and work orders that execute project specific work. Developing the basic agreements require the same procurement tasks (1-34) as project specific contracts. However, for on-call contracts only a broad scope is developed and fees are NOT, and are left to be determined when the contract modifications are procured. For work order contracts, a broad scope is developed and units and unit prices are agreed upon to be utilized by the work orders. Once the basic agreements are developed the contract mods and work orders can be procured starting with the step explained in the next paragraph.

On-call contract mods and work orders begin with a consultant being selected from the basic agreement list. This "selection" from the basic agreement is not based on qualifications since the list is compiled of consultants that have already been evaluated and deemed qualified. Specific procedures and details on work orders are included in Appendix J which also includes the necessary forms needed to request work orders.

DD41 Excerpts for Contract Modifications:

Basic On-Call Agreements-Authorization from the applicable Deputy Secretary or their designee is required prior to entering into contract negotiations on any Contract Modification to a Basic On-Call Agreement. The following criteria will be used to evaluate and justify the selection of a firm from the on-call list:

- *Special expertise and knowledge required to perform scope of services*
- *Value and volume of work pertaining to the specific on-call solicitation*
- *Location of firm if deemed critical*

Contract Manager Role:

Deputy Secretary approval- The CM will develop a letter to the Deputy Secretary requesting the approval of an on-call contract mod or work order with a brief explanation of the need for professional services and the project. The CM will send this request through the appropriate Director and copy the CMN and NA.

*Selection-*The CM will contact the Professional Services Office and request a consultant off the appropriate on-call or work order contract in order to begin negotiations. If project geography is an issue or a special requirement is involved, the CM might recommend the use of a specific consultant on the list. It might take the Professional Services Office several days to respond but once the CM has been informed of what consultant to use, the negotiation process can begin.

Contract Negotiations and Execution

Once the consultant has been selected and approved, the scope, estimate, and contract details can begin to be negotiated. After negotiations, the contract can be executed which results in the notice to proceed, officially beginning work in the contract. This section details the procedures and responsibilities during the negotiations and execution of the contract once the consultant has been selected. Procurement of on-call contract mods and work orders is also covered in this section.

Negotiations

This section details how and who negotiates with the consultant regarding the contract scope and/or fees depending on the contract type. Negotiations are an important step in procurement because it is when SCDOT personnel ensure that the state and consultant are obtaining a fair and reasonable agreement that will support the best project outcome. The details of the contract agreed upon during negotiations can easily make or break the project if done without proper planning, foresight and effort.

Negotiation Basics

Despite the type of contract or payment method the following items will have to be agreed upon or considered throughout the development and negotiation of the contract. These items are based on the scope of work and the project estimate which outlines the project costs and work effort as detailed below:

- **Scope-**This is the most important and first element of the contract that must be agreed upon before the rest of the contract is discussed because it defines the work to be done.
- **Project estimate**

- Costs
- Work effort

Depending on the payment method of the contract, some components are negotiated and some are reimbursed at the consultant's audited rate which represents the actual cost to the consultant. For example, cost plus contracts result in the consultant being paid for the actual number of hours worked at their actual wages paid. This will be discussed later in this section.

The components that make up the scope of work and project estimate (detailed in the following sections) are typically agreed upon or negotiated individually or in small clusters. However, it is important for CMs to negotiate contract components with the entire contract in mind. This is important because the scope, costs, and work effort are all interrelated and negotiation of one component can affect the quantity or cost of another. Thus negotiations can lead to a "give and take" amongst the components which can add flexibility to a negotiation. CMs must be aware of these effects during negotiations in order to prevent an unfavorable contract from being negotiated.

Negotiation Strategy

One negotiation strategy utilized by multiple state DOTs in professional services procurement is Principled Negotiation which is based on the idea of mutual gains. This strategy has been developed through the Harvard Negotiation Project and is detailed in the book *Getting to Yes* by Roger Fisher and William Ury. This method was developed as an alternative to the traditional form of negotiations called Positional Bargaining where the involved parties pick a position that benefits them and argue to reach their position by compromising until one of the parties finally gives in. This traditional form of negotiations often times leads to the playing of egos and utilizing stubbornness to obtain a position. Positional Bargaining is inefficient as it can lead to mutual dissatisfaction, and can be damaging to relationships.

SCDOT utilizes individual consultants repeatedly and it is best to maintain a good relationship throughout procurement and administration of contracts. CMs should realize that consultants need to make profits to stay in business but that SCDOT's interests are to represent the public, and obtain fair deals for the state and taxpayer. It is a balance that needs to be reached during negotiations in order for both parties to benefit from the contract.

Principled Negotiations are based on four points that address the basic elements of negotiations:

- Remove the personal factors from the negotiations in order to prevent them (I.e. Egos, wills, and stubbornness) from making the negotiations more complex and difficult. Everyone is human and even experienced negotiators can allow personal issues to cloud their negotiations. By handling or accommodating you and the other party's issues with emotions, perceptions, and communications, the personal factor can be removed from negotiations leaving the problem to be addressed. Handling or accommodating these issues can be done by studying and understanding the members of the other party and the company by developing relationships.

- Work toward interests, not positions because that is where the actual desires lie and thus agreements stem. Working toward positions can distort what is truly sought and result in neither party agreeing to what is needed. Positions can be a set wage or number of task hours while a company's interests might explain why they submitted the proposal for a particular project. Identifying and understanding the interests of both parties will allow an agreement to be developed that meets the needs of the parties. Maybe the consultant's interests with this project are to gain experience in a new work type or to move into a new geographical region, not to maximize profit. The question CMs should be asking themselves is how could those interests of the consultant be served in order to reach an agreement during the negotiations versus simply working towards a position of a high fee? CMs should also identify and negotiate for SCDOT's interests-is the schedule a larger interest or cost?
- Brainstorm options that will allow for the interests of both parties to be met. This should be done before entering negotiations when sufficient time and focus can be spent thinking creatively instead of frantically trying to develop options during the negotiations. Options that meet the interests of both parties provide mutual gains which are one objective of principled negotiations. The numerous components of the scope and estimate can be considered when developing options. Utilizing other SCDOT personnel that have been involved in similar projects to help brainstorm options or reviewing previous contracts could lead to productive options.
- Utilize objective criteria when working toward an agreement. This provides both parties with an understanding of when and how an agreement can be reached. SCDOT maintains historical data on wages, overhead and fees that can be used as objective criteria along with audits and industry or company data.

Principled Negotiations work toward mutual gains which help to sustain relationships where a winner or loser does not have to occur in order to obtain an agreement. In addition, this method is efficient, effective and has been utilized over the decades since its development. It can provide CMs a significant benefit during procurement negotiations as well as administration negotiations when issues arise.

Task 14: Negotiations Begin

The negotiations begin with the consultant and the CM discussing and agreeing on the scope of the contract work. For some projects a pre-scoping meeting might be appropriate to prepare for negotiations on scope. While this is part of negotiations, the SCDOT will have a broad scope already set for the project which will be discussed with the consultant to ensure an understanding of the work to be conducted. The scope will not be negotiated in the manner that estimates are except for work order contracts.

Task 14

Professional Services Manager notifies Contract Manager for Negotiations and the Negotiation Administrator of selected consultant

From Professional Services Manager to Contract Manager for Negotiation and Director of Contract Services

DD41 Excerpts for Task 14:

Once a firm(s) is selected, notification of the selected firm is sent to the Contract Manager for Negotiations and the Negotiation Administrator to begin negotiations with the selected firm(s). The Office of Contract Services is also notified of the selected consultant.

Contract Manager Role:

Pre-scoping meeting-For some large and/or complex projects, a pre-scoping meeting might be held with the CMN, NA, and the CM in order to prepare for scoping development with the consultant. During this meeting it is appropriate to review the scope and identify potential areas that might be subject to change based on the estimate negotiations with the consultant. In addition, the areas of the scope that could be conducted in-house if needed should be identified as well as any topics of discussions that should be highlighted with the consultant, such as unique site conditions.

For CE&I the DOC will take the project needs from the DCE and draft up a scope to be used during scope development.

Task 15: Pre-award Audits

Consultants active with SCDOT must be approved on a financial basis annually and in addition, a consultant's fee proposal for a specific project might be selected for a pre-award audit before the contract can be executed.

Task 15

Director of Contracts Services evaluates Pre-award Audit need

Director of Contracts Services to Contract Manager for Negotiations

DD41 Excerpts for Task 15:

An annual review will be performed on all active consultants by the Office of Contract Assurance to determine if they have a job cost accounting system, if they are financially capable, and approval of their overhead rate.

Pre-award audits of cost proposals will be requested by the Director of Contract Services on an as needed basis taking into consideration the following criteria:

- *Complexity of the project.*
- *Proposed costs appear questionable/unreasonable.*
- *Significant findings in prior audits not addressed/corrected.*

Pre-award Audit findings will be resolved by the Director of Contract Services with assistance from the Contract Manager for Negotiations prior to the execution of an agreement or contract modification.

Explanation and assistance will be requested from Office of Contract Assurance as necessary. The results of the resolution will be in writing by the Director of Contract Services to the Consultant with a copy to the Contract Manager for Negotiation.

Contract Manager Role:

The Office of Contract Assurance and the Professional Services Office are responsible for determining the need for and conducting any audits. However, the CM should consider the risk of a pre-award audit for the prime and sub consultants, and the effects audits can have on the procurement schedule. Pre-award audits are typically conducted on negotiated fee estimates which means very little procurement can co-progress with the audit, which can significantly delay the execution of a contract.

Contract Payment Method

There are 3 types of contracts (discussed in the General Information section) used in professional services and there are 4 payment methods that can be utilized with any of the 3 contract types. The payment types vary based on risk, incentives, flexibility, and administrative effort which are explained in this section.

DD41 Excerpts on Payment Methods:

Lump sum-the consultant performs the services stated in the contract for an agreed upon amount. This method of payment is appropriate only if the extent, scope, complexity, character and duration of the work to be required can be established to a degree that just compensation can be determined and evaluated by all parties at the time of negotiations. Contract modifications to lump sum agreements are generally not allowed. The use of lump sum is encouraged whenever feasible. This method of payment provides the maximum incentive for the consultant to control costs and perform effectively and imposes a minimum administrative burden on the SCDOT. Periodic payouts of lump sum agreements are allowed but the method defining payment should be included in the contract. (For example, based on percentage of work completed).

Cost plus fixed fee-the consultant is reimbursed for all eligible direct and indirect costs plus pre-determined fixed amount as a net fee. Cost plus fixed fee contracts are appropriate when the extent, scope, complexity, character or duration of the project cannot reasonably be defined at the time of negotiation. The contract includes a maximum amount payable under the agreement. The fixed fee should be expressed as an amount, not a percentage. This type of agreement includes an attachment with a complete breakdown of estimated costs by major element or task.

Unit cost-the consultant is paid on the basis of negotiated rate per unit of work performed. This type of contract is appropriate when the cost per unit can be determined with reasonable accuracy, but the extent of work is indefinite. This type contract is normally used for repetitive tasks. Rates are negotiated for specified tasks and the negotiated rates are in place for the life of the contract and may include escalation factors. The agreement should specify what is included in the rate. For example, if the consultant is allowed to charge travel expenses in addition to the negotiated rate, that fact should be included in the contract. This type of contract may include specific fixed hourly rates or daily rates for each employee classification directly engaged in the work. The agreed upon rates include the consultant's estimated costs, overhead and net fee.

A sub consultant's agreement with the prime may be lump sum even when the prime consultant's agreement with SCDOT is cost plus fixed fee. However the type of contract should be based on the same principles as explained above.

Contract Manager Role:

The CM must be aware of the various options for payment methods and their effects on other contract aspects, such as negotiations and administration. In addition, the CM should consider the risk placed on the CM and SCDOT with each method.

Tips & Recommendations:

The lump sum methods are appropriate for small, common projects like a short bridge replacement where the scope can be accurately detailed to an appropriate level. They are ideal for SCDOT because the consultant assumes a majority of the risk, and the administration efforts are minimal for SCDOT.

The Cost plus fixed fee method is ideal when scope, complexity, or schedule is uncertain but the downside of this type of contract is the intense administrative effort required by SCDOT. The wages and overhead rates must be verified through audits which can take weeks to conduct and the CM must verify the work stated in invoices to ensure it matches the work progress. In addition, although the consultant does have a fixed fee, there is little incentive for the consultant to not reach the maximum price of the contract.

The Unit Cost method is typically utilized for work order contracts where the unit prices are already negotiated in the original agreement. This method also requires the verification of work hours, direct costs as well as the indirect costs and overhead through the use of audits.

Time and materials/Specific Rate of Compensation contracts are another payment method similar to unit cost contracts. The consultant is paid based on negotiated direct labor rates for employee classifications. The hourly rates include wages, overhead, profit, and indirect costs (called loaded rates) which make these contracts different from unit cost or cost plus fixed fee. The benefit to this payment method is that it simplifies contract administration because only hours worked have to be verified. SCDOT does utilize partially loaded rates in some unit cost contracts by incorporating certain direct costs into the unit cost.

Consider what is best for the project-It is important to decide on the appropriate payment method that serves the best interest of the project in its entirety not the method that just simplifies the procurement or administration. Just trying to save time or make things easier now can lead to delays later in the project. The decision on contract payment type is typically made in conjunction with the decision on contract type made by the appropriate Director at the beginning of procurement. The CM will state the recommended payment method in the RON along with the reasoning which will be approved by the Director.

Task 16: Scope Development

The scope must be extensively discussed and understood by both parties in order for the other aspects of the contract to be accurately and effectively negotiated. The agreed upon scope will setup the remaining negotiations on work effort and fees.

Task 16

Scope of Services determined sufficient for pricing

From Contract Manager for Negotiation to Negotiation Administrator

DD41 Excerpts for Task 16:

The Contract Manager for Negotiations shall be responsible for determining when the scope of services is sufficient for pricing and providing it to Negotiation Administrator. At the discretion of the Contract Manager for Negotiations, the scope of services may be provided to the consultant for pricing or may be developed with input from the consultant. The Record of Negotiation (Form 8) will note dates of scoping meetings or discussions, the date the scope of service was provided to the consultant for pricing, and any significant additions or deletions to the scope. The Negotiations Administrator is available to assist if requested by the Contract Manager for Negotiations.

Persons attending scoping developments include the consultant, CM, CMN, Negotiation Administrator when needed and other SCDOT personnel experienced in similar projects when needed. The CMN is responsible for administrative tasks during the developments and making sure procurement procedures are being followed. Other SCDOT personnel experienced with similar projects can help discuss scopes that are complex or unique. Depending on the size and complexity of the project the scope can be agreed upon in a single meeting or it might require 4-5 meetings. The scope is agreed upon before negotiations continue with work effort and fees.

For on-call and project specific contracts, SCDOT already knows what the scope for the project will be before advertising the project based on the needs. Scoping discussions explain details to the consultant in order for both parties to understand and agree upon the work that the estimate will cover. However, scopes are developed differently for work order contracts. When work orders are being developed, the scope is negotiated with the consultants since prices have already been set in the basic agreement. Since scope is negotiated for work orders, it is important for SCDOT to develop their own independent draft of the scope before arriving at negotiations. This might not be the case for project specific and on-call contracts where SCDOT may let the consultant develop a draft scope for a project based on the broad scope in the advertisement. SCDOT will then take the draft scope and modify it before agreeing to the scope with the consultant.

The scoping discussions should lead to an understanding of:

- Work tasks and task details
- Work location/site extent
- Schedule and milestones
- Deliverables
- Presentations, meetings, public sessions required
- Design criteria, standards, requirements
- Measures of quality
- Payment method
- Division of work between consultant and department

Contract Manager Role:

The CM will need to take the broad scope listed in the advertisement and narrow it down in order to address the specific project needs and items of scope discussion with the consultant. The consultant may bring their own proposal in order to base negotiations off of as well so the CM should be prepared to compare the scopes. The CM should be able to answer questions from the consultant regarding all related issues to scope. The CMNs are in the process of taking on the responsibility to develop generic scopes that the CM can use to further refine for individual projects. This will vary as the CMNs begin to take on this responsibility and the CM should assume this responsibility until instructed otherwise.

For CE&I the CM and DCE will meet with the consultant to discuss and review the scope. The scopes for CE&I projects are simpler and easier to negotiate than preconstruction contracts due to the number and simplicity of the tasks.

Tips & Recommendations:

When developing the scope, the CM should utilize the format of the standard estimate that should be used later in the fee estimate negotiations. The tasks can be listed in the estimate form and negotiated with the hours and \$ values left blank, then when the scope is agreed upon the estimates are already prepared to be developed. Several spreadsheets from the standard estimate form are included in Appendix G.

Tasks 17-18: Develop Estimates

Once the scope is agreed upon, a project cost estimate must be developed independently by both the consultant and the SCDOT for use during negotiations of the project costs.

Task 17

Scope of Services provided to Negotiation Administrator to begin preparing Man-Hour Requirements (MHR) and Cost Estimate (CE)
From Contract Manager for Negotiation to Negotiation Administrator



Task 18

Contract Manager for Negotiation develops independent MHR and CE and sends to Office of Contract Services
From Contract Manager for Negotiations to Office of Contract Services

DD41 Excerpts for Task 17-18:

After the Contract Manager has provided the scope of services to be used for pricing to the Office of Contract Services, independent cost estimates will be developed by SCDOT and the Consultant. The Contract Manager for Negotiations shall instruct the Consultant to develop their independent cost estimate. The Consultant shall not submit or share any details of their cost estimate until requested by the Office of Contract Services. The Contract Manager for Negotiations shall provide SCDOT's independent cost estimate to the Office of Contract Services. The Contract Manager for Negotiations shall prepare their internal estimate based upon the final scope of service submitted to the Office of Contract Services. The Office of Contract Services is available to provide assistance in obtaining labor rates, indirect cost rates,

and direct cost rates as needed to assist in preparing the internal cost estimate and negotiation with the consultant.

The project estimate will address:

- Costs
 - Wages
 - Fee/profit/operating margin
 - Other direct costs
 - Overhead
 - Not to exceed amount
- Work Effort
 - Personnel employment classifications utilized
 - Work effort-task hours (quantity)
 - Work hours divided amongst personnel classifications (division)
 - Division of work between prime consultant, and subconsultants

Contract Manager Role:

The CM is responsible for developing a reasonable and competitive internal cost estimate based on the agreed upon scope. The CM must make sure to not have any discussions with the consultant during the development of the estimate to ensure it is independent as required. The PSM will be the single SCDOT point of contact with the consultant during this phase of procurement.

For CE&I the DOC office in conjunction with the CM will develop the internal man hour estimate to be used during negotiations.

Changes in procurement are leading to the CMN assuming more responsibilities in the development of estimates. This change will take place over time and CMs will maintain the responsibility of estimates until instructed otherwise.

Tips & Recommendations:

Utilize standard estimate- The standard estimate provides the same format for the consultant and in-house estimates so that comparisons during negotiations are easily and simply made. Make sure to utilize this valuable tool and that the consultant is aware of and uses the standard estimate as well.

Review completed projects- Unless the project is very unique, the SCDOT has most likely completed a similar project which provides a great resource when developing the task costs.

Seek advice- During development of the estimate, the CM should seek out advice from other SCDOT personnel experienced with similar projects. These personnel might include Design Managers, Program Managers, or staff in other RPGs. The standard estimate form is included in Appendix G.

Project estimate formats will vary based on the contract’s payment type. While the listed components that make up the scope and project estimate still must be considered and agreed upon, how the project cost structure is setup varies based on the payment method.

Cost plus fixed fee-these estimates will detail each project task and the # of hours each personnel classification works on the task. Each task cost is calculated based on the hours and wage rates (shown in Table 1). In addition to the work effort and wages outlined, the overhead and fee are calculated as a percentage of the direct labor costs. The other direct costs are also stated in the estimate (shown in Table 2). Tables 1-3 are screenshots from the standard estimate SCDOT has developed which is setup as Excel spreadsheets.

Table 1 Cost Plus Fixed Fee Estimate-Man Hours and Personnel Details

Task Descriptions	Project Manager	Engineer	Engineering Tech	Total Hour By	Total Cost By
	\$40.00	\$35.00	\$30.00	Task	Activity
Program Development	4	5	6	18	\$650.00
Project Meetings	4	5	6	18	\$650.00
Project Management	2	3	4	10	\$350.00
Cost Estimates	4	5	6	18	\$650.00
Program Controls (E-TEAMS)	5	6	7	22	\$800.00
Plan & Conduct Production Team Field Review	6	7	8	26	\$950.00
Value Engineering Study	0	0	0	0	\$0.00
Surveying	0	0	0	0	\$0.00

Table 2 Cost Plus Fixed Fee Estimate-Overhead and Fees

Labor Costs		\$650.00
Overhead Costs	150%	\$975.00
Subtotal Labor & Overhead		\$1,625.00
Profit	5%	\$81.25
FCC (Facilities Cost of Capital)	2.30%	\$37.38
Non-Salary Direct Expenses		\$400.00
SUBTOTAL ESTIMATED FEE		\$2,143.63

Lump Sum-These contracts can be negotiated with estimates in the same format as cost plus fixed fees. Instead of using the estimate to determine the maximum amount not to exceed, the estimate can result in the actual contract amount.

Unit cost- These estimates detail the work tasks and identify a single work unit for each task and a unit cost. The quantity of each unit is then defined for each task in order to determine the task cost (shown in Table 3). The unit costs include the direct costs, indirect costs, and fee so the task costs sum to the maximum amount not to exceed and create a simple estimate format.

Table 3 Unit Cost Estimate Format

Work Type	Procedure	Units	Unit Price	Quantity	Total
Auger Borings w/disturbed soil sampling	AASHTO T203	Linear Feet	\$ 40.00	100	\$ 4,000.00
Auger Probes to determine depth to rock, water table, etc., w/o sampling		Linear Feet	\$ 30.00	50	\$ 1,500.00

Tasks 19-20: Collect Estimates

Once the estimates are developed they are collected by Professional Services Office who will then provide them to the CM and CMN in order to begin comparisons in preparation for the negotiations.

Task 19

Negotiation Administrator requests Consultant to submit MHR and CE
From Negotiation Administrator to Consultant



Task 20

Negotiation Administrator receives Consultant’s MHR and CE and sends it to Contract Manager for Negotiations
From Negotiation Administrator to Contract Manager for Negotiation

DD41 excerpts for Tasks 19-20:

After receiving the SCDOT’s independent cost estimate, the Negotiation Administrator shall request the Consultant’s independent cost estimate.

After receiving the Consultant’s independent cost estimate, the estimate will be forwarded to the appropriate Contract Manager for Negotiations.

Contract Manager Role:

During these tasks the CM has no direct responsibilities; however, once the estimates have been collected the CM and CMN are responsible for reviewing the estimates and developing notes on the differences and potential areas of discussion during the negotiations.

Tips & Recommendations:

*Conduct a pre-negotiation meeting-*A pre-negotiation meeting might be appropriate in order to prepare for the negotiations. The CM and CMN should meet to discuss notes on the estimates and decide a plan for the ensuing negotiations. Review of the consultant’s estimate should ensure that the scope and schedule are accurate, and the CM and CMN should compare task costs and direct costs. In addition, a review of the task man hours and man hours by personnel should be conducted.

Task 21: Negotiate the Estimate

Once the scope has been agreed upon and the estimates developed the negotiations of the work effort and costs can begin.

Task 21

MHR and CE determined sufficient finalizing Contract Package From Contract Manager for Negotiation to Negotiation Administrator

DD41 Excerpts for Task 21:

All estimates must be submitted using the approved cost estimate template established by the Department. The approved version can be found on our intranet for internal use and the internet under "Doing Business with SCDOT" for consultant usage. All estimates are governed by the applicable Department, State, and Federal laws and regulations. The fixed fee shall be negotiated after agreement on all other costs taking into consideration the financial and professional investment, extent, scope, complexity, duration of services, and the degree of responsibility to be assumed by the consultant and will be recorded in the record of negotiation.

The Negotiation Team will be chaired by the Contract Manager for Negotiations, as defined in Engineering Package A, and consist of at a minimum, the Chairman and the Negotiation administrator, as well as other members at the discretion of the Chairman.

The Contract Manager for Negotiations shall coordinate a negotiation meeting(s) between the Negotiation Team and the Consultant to negotiate an agreed upon final price. The Contract Manager of Negotiations shall address any concerns of the Negotiation Team members during the negotiations process. During the negotiation process, further adjustment(s) of the scope of services and cost estimates may occur. The Negotiation Administrator shall ensure that the negotiations process does not violate any applicable laws and regulations.

If the Negotiation Team determines that further negotiations will not result in an acceptable agreement, the Negotiation Administrator will notify the Director of Contract Services in writing giving the reason(s) for terminating negotiations. The appropriate Deputy Secretary will approve termination of negotiations and notify the firm in writing that negotiations are terminated stating the reason(s) given by the Negotiation Administrator. A copy of this letter will be provided to the Director of Contract Services, appropriate Director, Team Chairperson, and Negotiation administrator. The appropriate Deputy Secretary will notify the Negotiation Team to begin the negotiation process with the next firm in the ranking order of negotiation.

Record of Negotiation Form (Form 8)-This form is found on the intranet under Electronic Forms under the General Forms tab. The following items further detail specific sections of the Record of Negotiation form.

- After identifying the type of contract (New Basic Contract or Contract Modification) used in negotiation, provide all applicable documentation to identify the type of project. (Project Name, Original Agreement Contract Number, Date, and File Number, PIN, Charge Code, etc.)*
- Ensure that every cost estimate in the negotiation process is recorded and that all submitted internal cost estimates reflect the date submitted to the Office of Contract Services. The Consultant estimate(s) should be recorded on the date the Record of Negotiation is received by the Office of Contract Services. (Final and first estimate may be the same.)*
- Provide explanation/justification of cost changes in the SCDOT and Consultant estimates in the comments section or attach separate documentation referenced on the Record of Negotiation.*

- *The Contract Manager for Negotiations will coordinate with the Manager for Contracts/Special Projects to have the appropriate contract document written and made a part of the Final Negotiation Package.*
- *The Contract Manager for Negotiations, Negotiation Administrator and the appropriate Director must sign and date the Record of Negotiation Form as to their agreement to execute the contract and submit it to the Office of Contract Services.*

The Negotiation administrator will be responsible for comparing historical numbers on the estimates as well as reviewing direct costs and fees. The CMN is responsible for maintaining records during the negotiations, setting up the negotiation meetings and other administrative tasks required.

Contract Manager Role:

Often times the CM assumes the role of the CMN by leading the negotiations while the CMN handles the administrative duties of negotiations. When that is not the case, the CMN is the chair of the negotiation team and must lead the negotiations with the consultant. The CMN is responsible for ensuring the negotiations lead to a reasonable and competitive contract that adequately meets the project needs. If the CMN leads negotiations the CM is still in attendance to provide data and project support to the CMN.

For CE&I contracts the DOC Office staff will coordinate the negotiation meetings and chair the negotiation team, and the DCE will also attend.

Tips & Recommendations:

For CE&I contracts, the hours and tasks are much more defined and are not as adjustable so negotiations are typically quicker than preconstruction contracts. The project schedules are also not flexible since they are determined by construction.

Do not forget scope-Even though the scope has been agreed upon, it can be reduced during negotiations if costs cannot be agreed upon. If scope is reduced, the CM needs to make sure the tasks removed can be conducted in house. The CM should be careful about reductions in scope or changing scope because a significant adjustment may require re-advertisement. Seek guidance from the Chief Procurement Officer if a material change is needed.

Consider primary and secondary factors-The task costs and hours will depend on the primary factors, such as the volume and amount of work to be conducted and also on secondary factors, such as difficult site conditions, or unique requirements for tasks.

Negotiate costs several ways-Since the in-house estimate only has task costs (except Environmental which uses task man hours), the CM should negotiate a task cost with the consultant based on the volume of hours on the task and the division of hours among personnel for that task. For CE&I contracts, the division of hours among personnel is not up for much change.

Be aware of consultant personality/habit-Consultants will differ in their development of an estimate and the CM should be aware of this and adjust throughout the negotiations. For example, some consultants

will provide a high, extensive estimate that must be cut back while others might provide a minimal estimate that must be added to. This is why the in-house estimate is developed.

Take the time necessary-Negotiations are a critical part of the procurement process and will take time to reach an agreement, up to 90 days or 5 meetings, but the CM should ensure the contract does not receive unfavorable terms because the CM begins to rush negotiations.

Keep in mind negotiation goal-SCDOT's goal in negotiations should be to obtain a fair price for the consultant, and a reasonable and competitive price for the state. The CM should not beat the consultant down in price to where there is no profit left but the CM should also be an effective representative for the state.

Consider Direct Costs vs Overhead-During the review of the estimate it should be noted by the Professional Services Office of how the consultant's accounting/cost structure has been audited in order to determine and verify what can be verified as direct costs and what is included in the consultant's overhead.

Work with the Professional Services Office-The Professional Services Office will be comparing the estimates to historical data on personnel classification wage rates, direct costs, and other costs, so the CM needs to be prepared to receive questions regarding unusual values for certain tasks or costs.

While all of the components that make up the work scope and estimate are considered and agreed upon before a contract is executed, when these components are agreed upon varies within the procurement process depending on the contract type.

Project Specific- These contract negotiations are a straight forward process because they have the scope and estimate components negotiated in succession during the procurement process before the contract is executed and work begins.

On-call contracts-The basic agreement contains a high level scope that is agreed upon with the qualified consultants. Once a contract mod is needed, a consultant is chosen from the list, the scope is narrowed down sufficiently, and a project estimate is developed and negotiated.

Work order contracts-The contract is setup with an agreed upon list of related project tasks. Each task has a unit and unit price agreed upon that will be utilized for all work orders executed from that contract. When the work need arises, a work order is developed by identifying the needed tasks, utilizing the pre-agreed upon unit prices and then negotiating quantities.

Task 22: Finalize Negotiations

Once negotiations are complete the contract details must be collected and prepared in a format that will allow for efficient and effective review and approval. In addition, the negotiation materials must be prepared for contract development in the next steps, and the records and documentation of the negotiations must be collected and properly stored.

Task 22

Contract Manager for Negotiations prepares Contract Package including Records of Negotiations (RON)

Contract Manager for Negotiations

DD41 Excerpts for Tasks 22:

Once the Negotiation Team and the Consultant have agreed upon a final price, the Contract Manager for Negotiations shall assemble the Final Negotiation Package.

The Contract Manager for Negotiations shall submit the Final Negotiation Package to the applicable Director to process. The applicable Director shall submit the Final Negotiation Package to the Office of Contract Services with proper signatures.

The Final Negotiation Package documentation at a minimum shall consist of:

- 1. Authorization Form (currently Commission Agenda Transmittal Form)*
- 2. Letter of Transmittal to include signature and date of Contract Manager of Negotiation.*
- 3. Record of Negotiation Form (including all applicable negotiation minutes).*
- 4. Two (2) original copies of the contract document including:*
 - The final scope of services (attachment to the contract)*
 - The final negotiated fee estimate (attachment to the contract)*
- 5. Prior approval by Deputy Secretary for any On-Call Contract Modifications.*
- 6. A DBE letter is required when a DBE is not utilized.*
- 7. Any other supporting documentation of the negotiation.*

Approvals are required by those listed:

Approval by Deputy Secretary

- Prior approval for on-call contract modification*
- Termination of negotiation*
- Limited notices to proceed shall be approved by the appropriate deputy.*

Approval by FHWA

- Approval of scope of service for contract modification when outside the original approved scope of service*
- Basic Contract templates and any revisions*

Approval by the Director

- Record of Negotiation*
- Authorization Form (Currently Commission Agenda Transmittal Form)*

Approval by the Contract Manager of Negotiations

- Record of Negotiation*

Approval by the Director of Contract Services or Designee

- Record of Negotiation*

Contract Manager Role:

The CM should make sure the CMN has all materials needed to assemble the contract package.

Tips & Recommendations:

The CM should expect the duration of negotiations to depend on: 1) How far apart the in-house estimate and consultant estimate are. 2) How many contracts in process through contracts office-

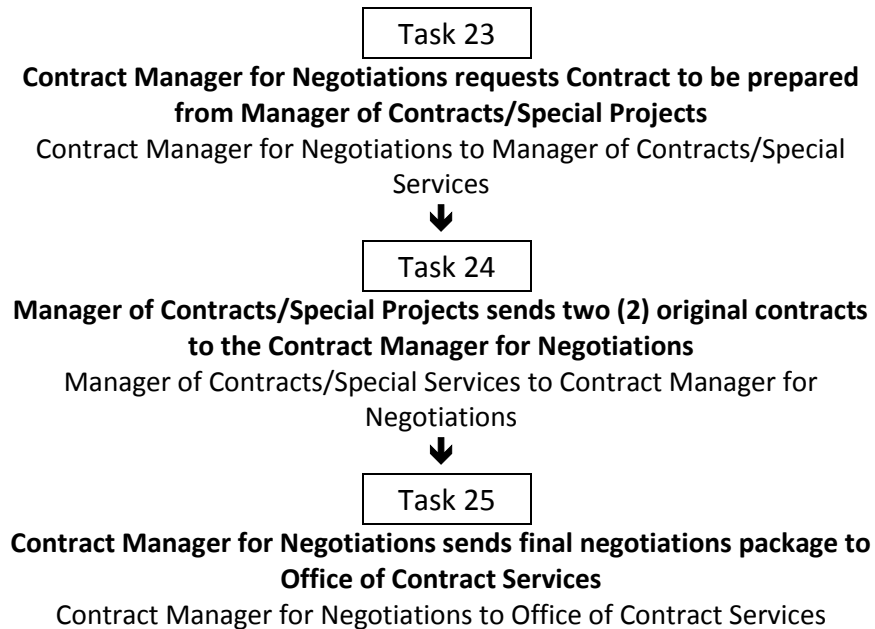
schedules and man power (only a couple negotiators for all contracts in the entire department.) 3) Complexity of project.

Execution

This section will detail the roles and responsibilities required to develop the contract once negotiations have been completed in order to execute the contract and begin work.

Tasks 23-25: Contract Development

After the terms of the contract specific to the project have been agreed upon through negotiations, the contract must be developed from the boilerplate form.



DD41 Excerpts for Task 23-25:

At the request of the Contract Manager for Negotiations, the Manager for Contracts/Special Projects will use the appropriate template to prepare two (2) original contract documents and will forward them to the Contract Manager for Negotiations.

The Contract Manager for Negotiations will send the Final Negotiation Package to the Office of Contract Services for their review/approval.

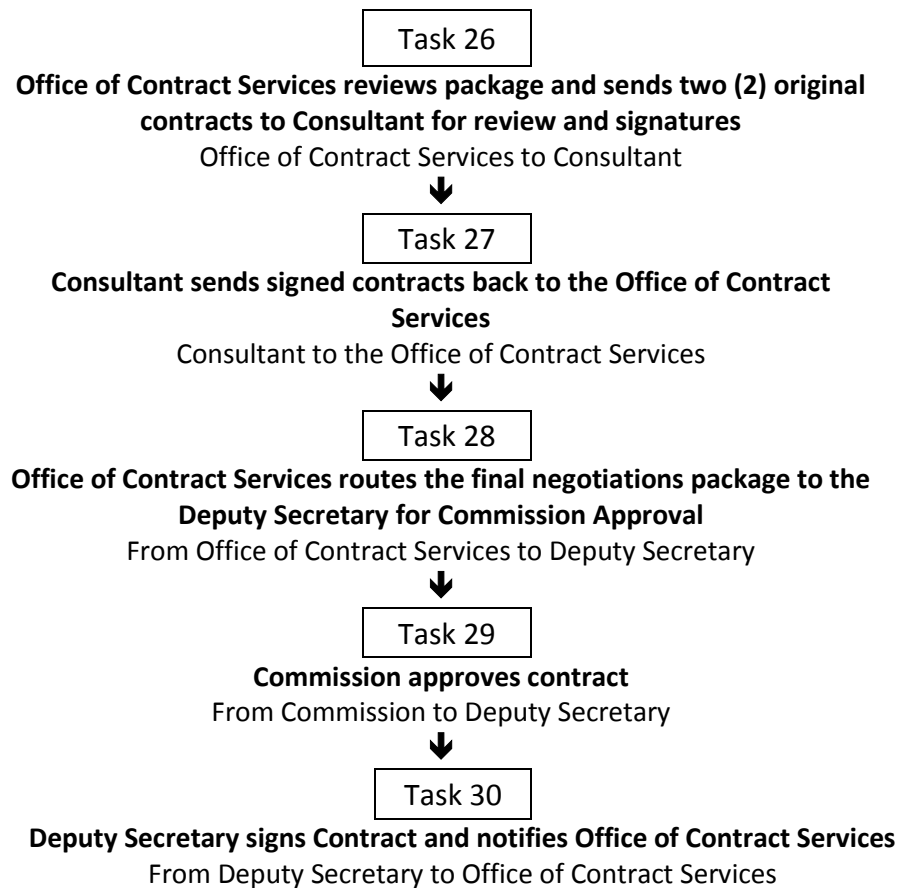
The Professional Services Office will be responsible to incorporate the negotiation package in the development of the final contract detailing the terms of the project.

Contract Manager Role:

The CM will have no role in the development (or assembly) of the contract after the scope and estimate have been agreed upon and will leave the responsibility to the CMN to have the contract developed. The CM should prepare to receive approval for the Notice to Proceed (NTP).

Tasks 26-30: Contract Signatures and Approvals

Once the contract has been developed, original signatures and approvals will have to be obtained in order to execute the contract. These steps involve multiple entities and their review and can take over 40 days to complete.



DD41 Excerpts for Task 26-30:

The Office of Contract services will send the two original contract documents to the Consultant for their review and signatures.

The consultant will return both copies of the partially executed contract to the Office of Contract Services.

The Office of Contract Services will assemble and route the Final Negotiation Package to the appropriate Deputy for Commission approval.

After receiving Commission approval, the appropriate Deputy will forward the approved package to the Office of Contract Services for execution.

Contract Manager Role:

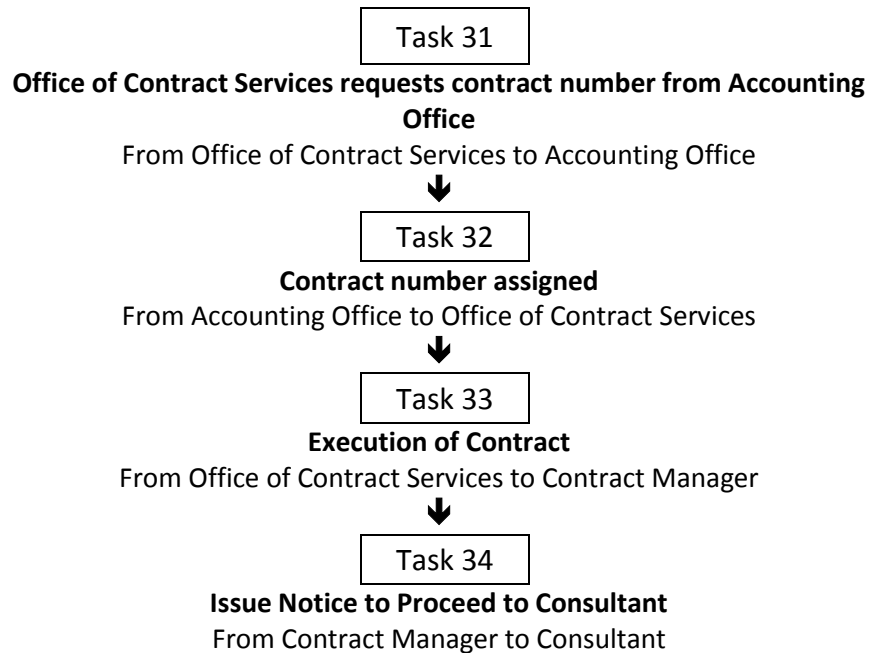
The CMN will be charged with obtaining the signatures and approvals for the contract. However, the CM is still responsible for timely procurement of the consultant contract and is expected to manage the process throughout. The CM should be prepared to receive the approval to issue the NTP once the contract has been approved.

Tips & Recommendations:

*Time to obtain approvals centers around the Commission-*When planning the procurement of the contract, the CM should plan to have the contract approved at an identified Commission meeting. This is important because in order to put the contract approval on the Commission meeting docket, it must be submitted by the last Friday of the month before the Commission meeting which is held on the 3rd Thursday of the month. With only 11 meetings a year (Historically November and December meetings are combined) and such a large lead time before the meeting to have the contract submitted, and getting on the Commission's docket is critical to a timely procurement schedule. Missing a docket deadline can lead to a whole month delay to the issuance of the Notice To Proceed.

Tasks 31-34: Contract Execution

Once the contract has been developed and approved it can be executed which begins work on the project.



DD41 Excerpts for Task 31-34:

The Office of Contract Services will be responsible for getting a contract number assigned from the Accounting Office and sending the executed contract to the appropriate Contract Manager.

After receiving the executed contract, the Contract Manager will issue a Notice to Proceed to the Consultant.

The Contract Manager will issue a written notice to proceed once the contract is executed. If Federal funds are to be utilized, the Contract Manager will ensure Federal funds are available and authorized prior to issuing the written notice to proceed.

A limited notice to proceed may be issued by the appropriate deputy or their designee to authorize work prior to execution of the contract.

One original copy of the executed contract is retained by the SCDOT Contract Services Office. SCDOT Contracts Services Office will forward one original executed contract to the Contract Manager for distribution to the consultant.

A limited notice to proceed can be issued for projects whose start needs to be expedited but that are still in the approval process. The notice must be approved by the appropriate Director, Chief Engineer and the Deputy Secretary. This allows the consultant to begin work on the project like normal but the consultant is only approved to complete a portion of the work (say 20%). The issuance is also essentially an “IOU” from the department for the portion of the payment because the consultant will not be paid until the contract is executed and a written NTP can be issued. The CM should ensure that the limited notice to proceed will not lead to exceeding the limit of the on-call original agreement. Limited notices to proceed are not acceptable for use with project specific contracts and they must all be approved by the Chief Procurement Officer.

Contract Manager Role:

The CM should expect to receive the executed contract and contract number and is responsible for issuing the NTP to the consultant. The CM will be responsible for ensuring Federal Funds are still available before issuing the NTP, when applicable. An original copy of the contract will be sent to the CM who is responsible for sending it to the consultant for their records.

Tips & Recommendations:

Use limited NTP sparingly-While the limited NTP can be a useful tool to ensure your projects are not held up they should be used only when urgently needed because they are essentially beginning work without a contract, which is understandably a risky situation for SCDOT. Upper management is aware of these risks and will most likely not allow routine use of this tool so it is best to save this tool till it is greatly needed. In addition, upper management maintains strict monitoring/attention of/to contracts when Limited NTPs are implemented.

Contract Administration

General

This section will detail the roles and responsibilities of the Contract Manager during contract administration. Per SCDOT guidelines, the Contract Manager (CM) has the primary responsibility for Contract Administration. The CM has a comprehensive and focused role at this stage with less involvement from other personnel or departments. The construction administration topics discussed in the following sections include: project meetings, invoicing, progress payment, progress reporting, contract modifications, performance evaluation, and project closeout.

DD41 Excerpt:

The Contract Manager, as designated by the Director, shall administer the contract under all applicable guidelines and procedures established by Departmental Directive 41, state and federal procurement procedures and departmental policies and maintain documentation of all decisions affecting the contract and contract modifications.

General Tips & Recommendations:

Proactively Manage Contract Execution: Key for successful execution of a professional services contract is proactive management of the effort. The CM should develop a plan to accomplish program objectives and then execute his or her plan. Proactively determine what is needed for proper communication and coordination of the project participants and then execute that approach. Encourage development of an effective project schedule and then utilize it to manage progress and evaluate performance. Establish an effective invoicing format that allows you to appropriately manage project payments. Develop reporting requirements that facilitate timely identification and reaction to plan variances. Proactively establish management tools for the professional services contract to help you effectively and efficiently manage for successful contract execution.

Document and Document: We are in a litigious industry. Execution of professional services contracts is often detailed and difficult with performance dependent on a number of variables and project participants. Additionally, memories tend to be selective, biased, and fading – even for the best of professionals. Document project events, agreements, decisions, and activities and securely store these documents to ensure proper understanding, enhance coordination, facilitate execution, and minimize disputes. The CM needs to compile emails into a separate electronic file for each contract. Project emails should be kept in one project file location, but protected documents subject to attorney client privilege should be in a separate file.

Identify and Manage Contract Risk: Every contract for professional services is unique and project execution has as a distinctive set of risk variables. While your management approach and technique may be similar from project to project, it should be adapted to address the risks unique to the execution of each contract for professional services. For example, the project may have an aggressive schedule that warrants additional planning or enforcement activities. The project may have multiple interdependent parties necessitating a heightened focus on team coordination and communication. The professional

services consultant may have limited experience with the state, or the proposed services, which merit additional inspection efforts to ensure compliance. Evaluate the contract and project participants to identify the key risks and manage to mitigate or eliminate them.

Project Meetings

Project meetings are often an effective and efficient method to facilitate communication and coordination among project participants. Meeting agendas are typically developed by the CM. To aid in attendee preparation and effective time utilization, the agenda should be determined in advance and distributed to attendees prior to the meeting. Meeting attendees should sign-in and minutes should be documented and distributed for all meetings. The CM should not conduct official meetings over the phone. However, if necessary to conduct a meeting by phone, memorialize the phone conversations by letter to ensure a full understanding and proper documentation.

There are basically three types of meetings that the CM should consider during execution of the contract: kickoff meeting, progress meetings, and special meetings.

Kickoff Meeting: Most all professional services contracts warrant a kickoff meeting. Subsequent to contract award and prior to the professional services consultant commencing work, the Contract Manager should initiate a 'contract' kickoff meeting. This meeting provides an opportunity for project participants to initiate a working relationship and share expectations. The CM should use this opportunity to review contract specific issues including project scope, performance expectations, project schedule, and invoicing requirements. In addition, roles and responsibilities should be outlined and cover personnel authorizations required for issues such as contract modifications.

Meeting attendees should include:

- Contract Manager
- SCDOT discipline specific personnel involved in the project
- Professional Services representatives
- Professional Services Consultant(s) & Their Key Subcontractors

The agenda for this meeting should include the following:

- Introduction of Participants
- Review of Project Scope
- Performance Requirement/Terms
- Reporting Requirements & Monitoring Procedures
- Project Meetings and Coordination
- Project Schedule & Milestone Dates
- Project Deliverables
- Potential Problems/Issues
- Invoicing and Payment
- Project Levels/Lines of Authority (Provide written documentation)

NOTE: The CM does not have authority to bind the state or SCDOT unless he has contract authority designated from SCDOT management.

Document the meeting and distribute the minutes to all attendees and other SCDOT personnel that may be involved with, or affected by, the execution of the contract.

Progress Meetings: Complicated/complex, high risk or unique performance contracts may warrant regular progress meetings to enhance communication, aid coordination, and ensure performance. The CM should evaluate performance requirements and risks, as well as team logistics, to determine if regular team meetings are warranted. Consider the contract variables and then decide what is the most effective and efficient method to foster communication and coordination of the effort. If regular team meetings are deemed appropriate they can be held at a central location or be conducted electronically. If conducted electronically, the CM should document responsibility for each action item, similar to documented minutes developed for an in-person meeting.

Special Meetings: Special meetings may be required from time-to-time to address unique problems and/or expedite solution(s). The CM should determine the most effective and efficient manner to address project needs and utilize team meetings when warranted. They often lead to the most expeditious and comprehensive solution to a problem.

Invoices

The consultant can invoice for services rendered once a contract is executed. The CM is responsible to manage the invoicing process to ensure compliance with SCDOT policy and procedure.

DD41 Excerpts Regarding Invoices:

After the notice to proceed has been issued, work may begin on the contract. Progress payments will be made according to the terms of the subject contract. Consultants must submit an acceptable invoice to the department to receive payment.

Details on specific requirements for each type of contract payment method are included below. Contract Managers are responsible for ensuring consultants are aware of the requirements. All invoices must include a signed statement by appropriate representative of the firm, certifying that all charges are true and accurate and in accordance with the contract. Submissions for progress payments should include the following for both prime and applicable sub consultants:

Lump Sum Contracts:

- a completed standard invoice
- total percent of each contract task completed to date
- total percent of each contract task completed during current billing cycle

Cost plus fixed fee:

- a completed standard invoice
- a cost summary
 - o billing period
 - o total labor costs
 - o overhead and profit
 - o total direct cost with breakdown
 - o cost per sub consultant
- a person-hour summary report (employee name, classification, rate, # of hours)
- direct cost break down
- status as specified by the Contract Manager

Unit Cost:

- *a completed standard invoice*
- *total units completed to date*
- *total units completed during current billing cycle*

There are two generic payment methods- lump sum and cost-plus. Unit price is another payment method utilized by SCDOT which is a cost reimbursement based payment method. Therefore, the cost-plus discussions in this section apply to unit cost contracts as well. Each payment method has significantly different risk variables regarding payment that the CM must manage.

Lump Sum: With lump sum contracting SCDOT pays a fixed amount for a specific scope of work. Regardless of the actual cost of the work, SCDOT pays a pre-established price for the contracted scope. Even when the prime consultant is contracted on a cost-plus basis, it is not uncommon for the prime consultant to contract with sub-consultants on the basis of lump sum.

With lump sum contracting, the key issues that SCDOT (and the CM) must address during procurement and execution are:

- During Procurement and Prior to Commencing Execution of the Work
 - Is the contracted scope appropriate and clearly defined?
 - Is the price for that scope competitive and reasonable?
- During Execution of the Work
 - Is the work that is being performed acceptable? Does it meet the requirements of the contract for both time and quality?
 - What is the actual percentage completion of the work to date? How much should the consultant be paid for the work performed?

The first two issues, scope and price, should be initially addressed during procurement of the consultant. However, prior to commencing the work, the CM should revisit these issues with the primary consultant to ensure that they have effectively and appropriately addressed scope and price when contracting on the basis of lump sum with any of their sub-consultants.

If scope and price for a lump sum contract have been properly addressed during procurement, the risk for SCDOT during execution is the timeliness of execution, quality of the work performed, and appropriate/fair payment for the work performed. The consultant's (or sub consultant's) actual cost of the work is not a concern because regardless of cost outcome, SCDOT will pay the predetermined sum. However, if unexpected work arises during the project, contract modifications can be utilized to address these.

Cost-plus Contracting: With cost-plus contracting every dollar that the consultant (or sub-consultant) spends should be considered a direct SCDOT expenditure, because if the actual cost of the work can be reduced, SCDOT and the tax payer benefit. Conversely, SCDOT and the taxpayer are liable if the project experiences cost overruns. This is a significantly different risk than with lump sum contracting where any savings or cost overruns flow directly to the lump sum consultant.

Therefore, with cost-plus contracting the CM must be concerned with timeliness of execution, quality of the work performed, and the actual cost of the work. The invoicing format and controls established by the CM must take this additional risk into account.

Invoice Format and Billing Deliverables: There is no standard format for consultant invoices. However, in addition to the requirements of the consultant contract and DD41, the contract manager is encouraged to establish a billing format that has:

- Adequate breakdown corresponding to project activities and consultant vendor/subcontractor costs to monitor performance and ensure appropriate payment.
- Sufficient detail to effectively monitor project costs and ensure reimbursement in accordance with contract requirements.

The first step of the billing process is to establish an acceptable and appropriate invoicing format for the consultant. The format may vary from consultant to consultant based on variables such as contracting method, contract amount, complexity of the work, and/or project phasing requirements. In addition, invoicing format and breakdown should be linked to the consultant contract. The CM should consider the execution and payment risks for each consultant and develop an invoice format that permits the manager to effectively manage SCDOT's risk.

An appropriate invoicing matrix generally permits the monitoring of the budgeted contract amount; previously billed, currently billed, total billed to date, and % complete of each work item or category. The level of detail is often correlated with contracting method. Cost-plus contracting typically requires a more detailed breakdown to permit the CM to manage the actual cost of the work performed. The CM must remember that with cost-plus contracting, direct consultant expenses, personnel costs, overhead assessments, and fee payments must be monitored and evaluated to confirm that charges are billable and accurate. It is essential that the CM tailor an invoicing format to effectively manage consultant cost risk.

In addition to invoicing format, the CM must establish any additional deliverables required for progress payment. These typically include a description of the work performed during the billing period and an overall progress report. Again, each consultant contract is somewhat unique and therefore the CM should proactively establish billing requirements that facilitate their management of the execution and payment risks for that consultant. The invoice format should incorporate the Certification Statement shown in Figure 3. The statement should be signed by personnel in the consultant's firm that has adequate authority and appropriate knowledge of the project to certify the invoice content.

I certify as an authorized representative of (firm name) that the costs invoiced are true, correct, in accordance with the terms and conditions of the above referenced contract, and currently unpaid.

(Signature)

Authorized representative of (Firm name)

Figure 3 Invoice Certification Statement

REMEMBER: It is the CM's decision regarding format and billing deliverables. Assuming your demands are reasonable, the consultant must conform to your billing format and content requirements.

The CM needs to establish the invoicing criteria well in advance of the first billing to allow the consultant to meet expectations. An example of an invoice is included in Appendix H.

Invoice Timing: Invoices for professional services are typically submitted not less than monthly. However, invoicing does not need to be on a precise cycle and can vary from project to project based upon contract requirements and contract manager discretion. Invoices must be submitted by 'hard copy' typically via mail – electronic submission is not acceptable.

e-TEAMS: SCDOT has an online project scheduling and resource management system designated specifically for consultant use. The online management system is called 'e-Teams' which is an acronym for Transportation Enterprise Activity Management System (TEAMS). Consultants have access to e-TEAMS to input target dates, planned resource utilization, and budgeted cost. Consultants are then expected to update actual progress, resource use, and expended cost each month during project execution. An update is required prior to, or concurrent, with project invoicing. A copy of the updated status report from e-TEAMS must be submitted with the consultant invoice. Failure to update and attach the updated reports is sufficient cause to delay or withhold payment. The decision whether to utilize the e-teams process on a project should be determined by the director but it is typically not utilized for CE&I projects or work orders. Appendix I contains the e-TEAMS process and directions as well as appropriate forms.

Payment

Invoices are received and then reviewed for accuracy before being paid. This step is critical to ensure the consultant is being properly compensated for the work completed.

DD41 excerpts:

The Contract Manager will review the invoice to ensure costs billed are appropriate for work accomplished during the billing period. The Contract Manager will ensure the billing is in reasonable compliance with the contract and other written authorizations and in accordance with contract documents. If any errors are discovered that would prevent payment, the Contract Manager should contact the consultant immediately. The consultant should correct the errors and submit a revised invoice.

Once the invoice is deemed acceptable, the Contract Manager initiates a SCDOT pay request. The Contract Manager recommends payment and a higher-level supervisor will approve. After appropriate signatures are obtained, the payment request should be sent to the Office of Contract Services for processing.

The contract manager has primary responsibility to evaluate the appropriateness of consultant invoicing and make recommendation(s) for payment. The CM must evaluate consultant performance and invoicing to ensure that the:

- Work performed is of acceptable quality
- Costs billed are appropriate, reasonable, and correct

- Consultant is not overbilling (quantity or cost) for any portion of the work performed
- Work billed is within the scope of the contract
- Amount billed does not exceed the contract limits

Consideration must be given for each payment type and their associated risks. With lump sum contracts the CM's cost evaluation primarily focuses on percent complete. However, with cost-plus and unit price contracts, the CM must also evaluate units completed and unit pricing/cost. In each case, the CM should require sufficient backup to accompany the invoice to validate direct and overhead costs of a project. In addition to the updated status report from e-TEAMS, other items may include timesheets, vendor invoices, and/or backup detail from the consultant's subcontractors.

Upon receipt of the consultant's first invoice perform a comprehensive review to ensure that it conforms to format and content requirements. If it does not, return it for correction. Take action to ensure that the billing process for each consultant is initiated correctly.

Once invoicing format and content meets the established requirements, comprehensively examine the entire invoice and supporting documents. Review to validate that:

- Contract (or Budget) data is correct
- Previously billed amounts are correct
- Currently billed amounts are correct
- Total work completed to date and percentage complete accurately reflects actual progress
- Percentage paid is consistent with percentage complete for each work item
- Calculations for cost totals and summaries are correct
- Personnel billing rates are in accordance with the contract
- Direct costs are in accordance with the contract
- Personnel classification (billing) is appropriate for each work item performed
- Duplicate hours have not been billed for a task (administrative or management line items with a large # of hours billed in addition to upper management hours)
- Excessive management hours are not charged
- Personnel cost and expenses for unapproved travel and/or meetings are not being billed
- Detailed supporting documentation has been provided for each personnel and expense item
- Supporting documentation is consistent with the summary invoice
- Contract budget/price has not been exceeded on each work item and/or in the aggregate
- Appropriate markup for overhead and fee (profit)

The CM should make adjustments to each individual work item invoiced as warranted. If excessive corrections are needed, it may be necessary to reject the billing and ask the consultant to revise and resubmit the invoice.

Quality of the work at times may be difficult to assess. It may require a site visit and/or submission of additional project documentation. The CM is responsible to effectively evaluate the quality of the professional services to ensure that SCDOT is not paying for deficient work.

Demand sufficient detail to properly evaluate the appropriateness and accuracy of the billing. If the consultant's invoice is insufficiently documented or inaccurate, reject the billing and ask the consultant to correct and resubmit. It may be unusual to reject payment, but if the consultant is not performing, or there are obvious issues such as inappropriate design, then the CM should reject the invoice. The CM should review the appropriate clauses in the contract prior to rejection of an invoice to ensure actions are in accordance with the agreement. If warranted, the CM should consult with the Professional Services Office for interpretation and advice on procurement rules and regulations.

When the Contract Manager has completed evaluation of the invoice and deems it acceptable for processing, the CM must complete and attach Form 608 which details: 1) total amount invoiced to-date, 2) previous billings, and 3) amount due for the current billing. The CM executes Form 608 and submits to their supervisor for approval. The consultant invoice is submitted to Contract Services for processing once the CM and supervisor signatures are received. Processing the invoice for payment generally takes 3-4 weeks.

Progress Reports

There is no standard SCDOT progress reporting requirement for professional services contracts (with the exception of e-TEAMS). The e-TEAMS status report does provide limited insight regarding time and cost by comparing planned with actual schedule dates, resource utilization, and cost. However, the primary focus of the status reporting from e-TEAMS is to support contract invoicing and payment.

In the absence of standard SCDOT reporting requirements, it is incumbent on the Contract Manager to properly evaluate project requirements and consultant performance capabilities to determine the appropriate progress reporting requirements for each professional services contract. At a minimum, the CM should require sufficient input to evaluate time, cost and quality as follows:

- A schedule should be developed during contract negotiations and finalized after award. The CM should regularly require the consultant to update with actual progress. For some efforts, the reporting in e-TEAMS may be sufficient to monitor schedule performance.
- Cost monitoring can normally be accomplished with regular status reporting in e-TEAMS.
- To ensure quality services, the CM should establish a reporting process to verify design accuracy and completeness. If design flaws are discovered, or inappropriate plans are developed by the consultant, the CM must take appropriate action to resolve.

The performance requirements for CE&I are based on the construction schedule – not the consultant's. The Contract Manager establishes the consultant's schedule based on contractor progress to ensure the CE&I work supports the construction progress. Typically weekly project meetings are held with the contractor, DCE, and consultant to assess progress and future needs.

If the consultant has poor performance and remains in default of the contractual terms, then termination may be necessary. To get to the point of termination, the CM needs to document consultant deficiencies, advise the consultant of the deficiencies, and allow opportunity for correction. If the default isn't remedied, then termination may be warranted. CM termination recommendation

should be submitted to the appropriate Director who will follow the chain of management, including the legal office, to reach resolution. The Deputy Secretary must approve termination. Allowable reasons for termination include poor performance, incompetence, illegal actions, and unethical conduct.

Contract Modifications

Contract mods for project specific contracts are different than work orders or on-call contract mods. Project specific contract mods represent a modification or further specification to the original agreement that remains in scope with the original project specific agreement.

DD41 Excerpts for Contract Modifications:

Project Specific Basic Agreements (turn-key)-No prior approval is required to enter into contract negotiations for a contract modification to a Project Specific Basic Agreement. The Contract Manager is responsible to ensure the work must be within the original scope of advertisement for the project.

Contract Manager Role:

The CM is responsible for determining when a contract mod is needed and appropriate. Understanding when or if a contract mod is appropriate requires the CM to consider the new work and whether it is covered under the scope described in the advertisement and the scope covered in the contract. Contract mods can be utilized to add additional work needed to complete the project if the work is covered under the scope listed in the advertisement but is not covered by the scope in the current contract. The CM should solicit guidance from the department manager, Regional Production Engineer and/or the Chief Procurement Officer regarding contract mods for in scope work. Scope not covered under the original advertisement might be considered new procurement and require re-advertisement.

Project specific contracts with cost plus fixed or unit cost payment methods- If the consultant fee is changed or if the NTE amount of the contract needs to be increased a contract modification for the work must undergo the entire procurement process again with the exception of consultant evaluation and selection. In order to undergo the negotiation process and obtain the post-negotiation approvals required (must be approved by Deputy Secretary and Commission) contract mods typically take 6 months to execute. This can ruin a project schedule because legally the consultant cannot begin work on a contract mod until it is executed. Contract modification is a critical issue in contract administration, which demonstrates the need for thorough and effective procurement of contracts. With cost reimbursement fixed fee contracts, the fee is fixed and not increased unless there is a contract mod that adds additional services and the associated fee for those additional services. The CM is authorized to begin a contract modification without formal approval, however, the director should be aware of the start of a contract modification even though the mod will be approved before it is executed and after it is negotiated.

*On-call contracts-*For on-call contracts if an issue arises that requires a change in the project scope (that is covered under the basic agreement) or project costs, a new contract mod can be executed with the consultant. This contract mod must go through the same process and approvals as the original contract mod. The CM should consider that executing a contract mod for on-call contracts can take a month or more. The CM should recognize there is a difference between work order and on-call contract mods in

establishing contract amount. With on-call contract mods or task orders the scope must be developed and the price and time must be negotiated.

Work Order contracts-For work order contracts if an issue arises that requires a change in the project scope a new work order is developed and executed to cover the new work (assuming the new work is covered under the work order basic agreement). With work orders the unit prices are already negotiated and the contract mod amount is established based on negotiated quantities and time. This work order will go through the same procurement process as the original work order.

If a work order is being executed and it is realized that all of the intended work is not covered in the current work order or if additional work is needed due to an unknown condition, a supplemental work order can be utilized. The detailed process and form for supplemental work orders is included in Appendix J.

Supplemental Work Order approval process:

- CM prepares additional Form 2 (w 'shaded' info provided)
- CM Submits Supplemental Form 2 for Director Approval
 - May be appropriate to get preliminary/verbal approval from Director
- Form 2 Approved:
 - Sent to Consultant, cc
 - PSM

Lump sum payment method-Under lump sum contracts contract modifications increasing scope or adjusting the cost are not allowed. Scope items that can be addressed through a contract mod are those covered by the advertisement but not covered by the contract. This is a demonstration of the risk held by consultants when lump sum contracts are utilized and why projects utilizing this payment method must be very well defined.

Document Communications-Contract mods are exactly what their names represent, a modification to the basic/original agreement and therefore must be handled in the same sense as the original contract. It is imperative that as soon as a contract modification is suggested or discussed, that the CM documents both parties' comments with copies to the Professional Services Office. The Professional Services Office should be notified of all contract modifications.

If discussions with consultants are held verbally then a summary should be sent via email seeking the consultant's agreement on what was discussed in order to have the conversation documented. Emails regarding contract modifications should be saved and filed in an easily accessible folder.

Recognize Contract Mods in communications-CMs should be aware that contract mods can come across as simple suggestions by a consultant in informal emails and that agreeing to any changes (even through an email) can constitute a contract mod and obligate the state. The CM must always realize the consequences and obligations that can easily be transferred from a consultant's scope to the department through simple and seemingly informal email communication.

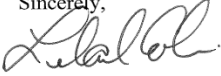
Ensure scope is not changing-If the CM is approving a contract mod then it is imperative that the CM ensures no changes in scope or fees are made. That means work cannot be added that was not covered in the scope listed in the project advertisement. The CM must use judgment to determine if the original scope covers the new work and seek input from supervisors and the Professional Services Office if questionable.

For CE&I contracts, zero cost and zero scope change time extension contract mods can be implemented with a letter to the DOC office requesting approval. See Figure 4 for an example of the request letter.

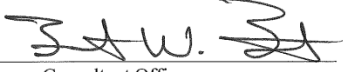
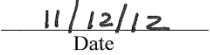
Dear Mr. Williams:

This letter serves as notification to continue the On-Call CE&I Services provided to SCDOT District #7 under Contract 1425, Contract Modification #1, through November 30, 2013. Please note that you shall not exceed the contract maximum established in CM #1. By signing the concurrence below and returning to SCDOT, S&ME has indicated acceptance of this time extension to this contract.

Should you have any questions, please don't hesitate to call.

Sincerely,

Leland Colvin, P. E.
Director of Construction

Your concurrence to this request would be greatly appreciated.

Concur:  
Consultant Officer Date

LDC:rtt
ec: Jim Porth, District 7 Construction Engineer
Carmen Wright, Contract Services

Figure 4 No Cost Time Extension Contract Mod-Concurrence Letter

Performance Evaluations

Consultants' performance will be evaluated throughout the project in order to maintain records on project quality and to provide historical information on firms that can be used during the evaluation process for future contracts.

DD41 Excerpts:

The Professional Services Manager will conduct a performance evaluation of consultants on all active projects semi-annually (April & October) with all Contract Managers. The Contract Manager will evaluate and discuss interim contract performance with the consultant and submit the performance evaluation to the Professional Services Manager. All performance evaluations and the summary evaluation report will be noted "Confidential" and not to be shared with any firm except for the individual performance evaluation for that particular firm. The Professional Service Manager will provide a semiannual summary performance evaluation report to the appropriate Deputy Secretary. In addition, the Professional Services Manager will provide the Evaluation Committee a complete performance evaluation summary for those consultants responding to specific advertisements as noted in Chapter 3. Upon substantial completion of a

project, the Contract Manager will conduct a final performance evaluation with the consultant and prepare and submit a final performance evaluation report to the Professional Services Manager.

Consultant performance evaluations must be completed by the Contract Manager. The evaluations are stored electronically by DOT for each consultant and are used in the evaluation and selection of subsequent professional services contract needs. The CM must prepare semi-annual evaluations of all active consultant contracts whether work was performed during the rating period or not. The evaluation is a qualitative assessment of the consultant's performance.

Once completed by the CM the evaluation is sent to the consultant for review and signature. If the consultant disagrees with a rating they can request a modification or they may comment directly on the form. Subsequent to the consultant's signature, the evaluation is submitted to the contracts services office.

Tips & Recommendations:

Evaluate Objectively: Evaluate the consultant's performance objectively. Do not let your emotions override your good judgment. Rationally and objectively assess their performance.

Be Honest and Candid: The CM may be tempted to be less than candid when assessing consultant performance – especially since the consultant will see the CM's comments. Remember, the CM's evaluation will be used in the selection process for future services and any concerns or problems regarding the consultant's performance need to be made known to the selection and evaluation committees.

Final Payment and Closeout

Once the project work is complete the contract must be properly closed out, which is an administrative task to end the contract.

DD 41 Excerpts:

The SCDOT pay request should indicate that this is the "Final Invoice" to be submitted on the project. The Contract Services Office will notify the Office of Contract Assurance (OCA) that final invoice has been paid on the project. OCA will use a risk based approach to select projects for final audit. Criteria used in the risk assessment will include: dollar amount of contract, type of contract and experience with the consultants to include known problems or concerns about the firms performing work on the project. If a final audit will not be performed, OCA will notify Contract Services that the project can be closed. For projects selected for a final audit, the audit report will be provided to the Director of Contract Services.

The Director of Contract Services will take appropriate action based on the final audit report. Appropriate action could include processing a payment to the consultant for additional allowed costs, issuing a request to the consultant for repayment of costs questioned by the audit, or closing the project as paid. The Director of Contract Services should copy OCA with the letter mailed to the consultant on resolution of the audit findings. Once final payment has been made or the required refund is received, the project may be closed.

The CM for consultant design services has responsibility for acceptance and authorization of final payment for professional services contracts. For design services, the CM must conduct a thorough review of the contract documents, resolve any comments or concerns, and receive a final signed and sealed set of project plans and specifications.

The Contract Manager should review the contract to identify all deliverables and follow-up with the consultant for submission. Deliverables could include a CD with the CAD design files, plans in pdf format, progress reports, hearing minutes, reports, inspections, Operations & Maintenance manuals, and meeting minutes. Generally all design services documents are provided by the consultant prior to letting. Any remaining fixed fee should be paid to the consultant at project closeout. To close out the project, the CM will submit the final invoice and mark it as "Final" in order to notify the accounting department. If a contract has been left open after work has been completed and no further payment is due to the consultant, the consultant needs to submit a \$0 invoice which is approved by the CM and submitted to the accounting department to close out the contract.

Tips & Recommendations:

Know the Deliverables: Prior to closeout develop a complete list of contract deliverables and then aggressively manage the consultant to obtain everything that is required. Proactively manage the process to facilitate a timely and comprehensive closeout of the contract.

Construction

For many of the professional services related to design (Structural, roadway, and geotechnical mostly), when the contract is closed out construction will follow based on the contract deliverables. Although the CM may no longer have to administer the contract, there are still responsibilities the CM should be aware of during construction of the project.

DD41 Excerpt:

Consultants providing design services will not be used to perform construction management and engineering inspection on the same project. The Deputy Secretary, and when federal funds are used, the FHWA must approve exceptions to this restriction. This restriction does not apply to design services performed during construction such as shop drawing reviews or responding to design issues that arise during construction.

If an error and/or omission is discovered, the appropriate Director will advise the Contract Manager and will follow procedures as outlined in Engineering Memorandum Directive 38.

Contract Manager Role:

During construction the CM will be called upon on an as-needed basis regarding the design. These responsibilities include addressing clarification and questions and handling redesigns or design errors.

Construction kickoff-Depending on the service (usually structures), the CM and consultant might attend the construction kickoff meeting in order to be introduced to the construction team and exchange contacts. Depending on the project and issues such as funding, construction might not begin for a

significant length of time after the completion of the professional services contract so the CM should review the plans and design before the meeting.

Design issues-During construction, questions or clarifications regarding the design or plans might be communicated through the CM to the consultant. In addition, the CM might have to review shop drawings or discuss the need for a contract modification for a design change or redesign. If an error or omission in the design is identified then the CM will be involved in the procedures in Engineering Directive Memorandum 38 mentioned in the DD41 excerpt.

Records and Retention

This section addresses the records that should be kept throughout procurement and administration, and the personnel responsible for those records. It is imperative that the CM develop an effective and efficient filing system so that documents or records can be easily retrieved during the project and after project completion during final audits or disputes.

DD41 Excerpt:

Director of Contract Services or Designee

- *Documentation of authorization (i.e., Commission Approval and/or Deputy Secretary Approval)*
- *Commission Authorization Form (when required)*
- *Original contract and/or contract modifications*
- *Documentation of negotiation process*
 - o *Record of negotiation form (i.e., inclusive of documentation of process)*
 - o *Approved cost estimate template(s) - Internal and Consultant*
 - o *Audit reports (when required)*
 - o *Negotiation Minutes*

Professional Service Manager or Designee

- *Documentation of Commission approval (shared information with Contract Services)*
- *Performance evaluations (if applicable)*
- *Claims*
- *Proposals/letters of interest*

Accounting Department

- *Invoice and Form 608*

All records will be retained according to the approved Departmental retention schedules.

The CM should retain documents/records regarding:

- Contract, Mods & Contract Documents (NTP etc.)
- Cost, Time/schedule Records (Progress reports etc.)
- Communication & Correspondence (including e-mail, meeting minutes)
- CM guidance/directives to consultant

For CE&I the DOC and the district office will keep original copies of the contract and the CM will keep copies of the invoices and meeting minutes.

The CM can consult the General Retention and Special Retention Guidelines link:

<http://iwww.dot.state.sc.us/retention/default.html>

APPENDICES

Appendix A: Professional Services Office personnel job descriptions

Appendix B: DD41

Appendix C: Package A forms 1-7

Appendix D: FHWA Oversight and Stewardship Plan

Appendix E: Sample Advertisement from SCBO

Appendix F: Evaluation score sheet

Appendix G: Standard Estimate

Appendix H: Sample Invoices

Appendix I: E-teams material

Appendix J: Work Order procedures

Appendix K: DBE Quarterly Report Form

Appendix L: List of Acronyms

Appendix A

Job Descriptions

Lead Negotiator Job Description

General Description:

Lead the engineering operations negotiation team. Manages team members in the negotiation of professional services contracts for engineering related matters and work required to fulfill project needs. Works with project managers developing project scopes, estimates, coordinating meetings, and coordinating with all divisions to take a project from the selection phase to the contract signing phase. Coordinates negotiations with Contract Services Office, ensuring all Federal/State exempt procurement requirements are met.

Detailed Functions:

Leads the engineering negotiation team responsible for negotiating with consultants on professional services contracts. Manages the negotiation process to include distributing workload, timely completion of negotiations as related to the team's responsibilities, ensuring consistency in negotiations, operating within the desired time frame and assists with the coordination of pre-scoping, scoping and estimate negotiation meetings with internal staff and the consultants.

Coordinates with project managers and consultants to ensure negotiations meet time requirements set by upper management. Helps develop project scopes, project estimates, and schedules negotiation meetings. Corresponds with consultants, negotiates project work with regard to man hours, work types, and pay rates, etc.

Prepare final contract package submittals for the engineering departments to submit to the Contract Services office for Commission approval.

Coordinates negotiations with Contract Program Services staff to ensure negotiations meet time requirements set by upper management. Works with staff to ensure contracts follow applicable Federal/State minimum requirements.

Tracks negotiations, prepares reports, recommends and develops processes to track projects and negotiations as well as training team members.

Other duties as assigned by supervisor.

Negotiation Administrator Job Description

General Description:

Serves as a negotiator for the Engineering Operations negotiations team. Responsible for the negotiation of professional services contracts for engineering related matters and work required to fulfill project needs. Works with project managers developing project scopes, estimates, coordinating meetings, and coordinating with all divisions to take a project from the selection phase to the contract signing phase. Coordinates negotiations with Contract Services Office, ensuring all Federal/State exempt procurement requirements are met.

Detailed Functions:

Handles all facets of the negotiation process for assigned projects, ensuring consistency in negotiations. Assists with the coordination of the pre-scoping, scoping and estimate negotiation meetings with internal staff as well as with the consultants to include recording and preparing meeting minutes, preparing scopes and estimates and documentation of the estimate negotiation. Coordinates with project managers and consultants to ensure negotiations meet time requirements set by upper management. Corresponds with consultants, negotiates project work with regard to man hours, work types, pay rates, etc.

Prepare final contract package submittals for the engineering departments to submit to the Contract Services office for Commission and/or upper management approval.

Coordinates negotiations with Contract Program Services staff to ensure negotiations meet time requirements set by upper management. Works with staff to ensure contracts follow applicable Federal/State minimum requirements.

Uses Negotiation Database to track negotiations and prepare reports.

Other duties as assigned by supervisor.

Professional Services Manager Job Description

General Description:

Under limited supervision assists in managing and coordinating special and confidential assignments at the direction of the Assistant Chief Engineer for Operations. Coordinate the implementation of the Federal Procurement Consultant Contract Selection Process and related financial activities with recipients and various divisions within the South Carolina Department of Transportation (SCDOT). Verifies financial records and organizations' activities and operations to ascertain financial status, accuracy of data, efficiency and compliance with applicable Federal Highway Administration, Federal Transit Administration and other federal/state regulations.

Detailed Functions:

Co-manages the selection of consultants for projects exempt from the State Procurement Code. Ensures compliance with State, Federal and SCDOT guidelines. Responsible for managing and coordinating project approvals, advertising, receipt of proposals, and facilitating committees. Ensures appropriate communication, both oral and written, between the selection committees and consultants. Manages databases with pertinent information on each proposer and tracking the selection process.

Manages and analyzes the tracking of SCDOT Advertised Projects, Participation, and DBE commitments. Prepares annual reports on consultant proposal submittals and agreements in accordance with the DBE program, tracking all SCDOT advertised projects and new contractual agreements including both Prime and Sub(s).

Responsible as designee for the Selection Debriefing Interview Process in accordance with Federal and State regulations. Responds to written requests for debriefing interviews, responsible for preparing all correspondence, responsible for conducting, documenting, and recording the debriefing interviews in accordance with Federal Acquisition Regulation 15.505 and 15.506.

Co-manages the analogy and tracking of SCDOT Consultant Performance Evaluations for Basic and Contract Modification agreements.

Assists SCDOT management and legal counsel in the resolution of claims, disputes, bankruptcy, etc. Researches appropriate documents, and provides requested information and opinions on SCDOT selections, agreements and contracts.

Performs QA/QC on all agreements prior to the agreement being finalized for signature/execution by all parties.

Other duties as assigned by supervisor.

Professional Services Manager (On Call) Job Description

General Description:

Under limited supervision, assists in coordinating special and confidential assignments at the direction of the Assistant Chief Engineer for Operations. Assists in coordinating the implementation of Federal Procurement Consultant Contract Selection Process.

Detailed Functions:

Co-manages the selection of consultants for projects exempt from the State Procurement Code. Ensures compliance with State, Federal and SCDOT guidelines. Responsible for coordinating project approvals, advertising, receipt of proposals, and facilitating selection committees. Ensures appropriate communication, both oral and written, between the selection committees and consultants. Manages databases with pertinent information on each proposer and tracking the selection process.

Manages the on-call contract process specific to work order, fixed fees. Tracks and assigns on-call consultant forms based off requests from project managers. Ensures work order contracts divided among approved firms as equal as possible.

Tracks consultant services Commission recommendations monthly and updates Professional Services Access database to reflect date submitted.

Co-manages the analogy and tracking of SCDOT Consultant Performance Evaluations and prepares correspondence to consultants regarding performance.

Assists with responding to written requests for debriefing interviews, responsible for preparing all correspondence, responsible for conducting, documenting, and recording the debriefing interviews for the Selection File in accordance with Federal Acquisition Regulation 15.505 and 15.506.

Tracks contract negotiation status. Provides periodic updates as required by upper management.

Other duties as assigned by supervisor.

Appendix B

DD41

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DEPARTMENTAL DIRECTIVES

Directive Number: 41

Date: Revised October 3, 2011

Subject: Procurement and Administration of Architectural and Engineering Services

Referrals: 23 Code of Federal Regulations 1.3

Title 23 United States Code § 112

Title 40 United States Code, Chapter 11 § 1101-1104

23 Code of Federal Regulations, Part 172

48 Code of Federal Regulations, Federal Acquisition Regulation (FAR)

49 Code of Federal Regulations, Part 18

49 Code of Federal Regulations, Part 19

Title 57, Code of Laws of South Carolina, 1976 as amended

Section 11-35-710(1), Code of Laws of South Carolina, 1976 as amended

**FHWA Order 4470.1A, Policy for Contractor Certification of Costs in Accordance
with FAR to Establish Indirect Cost Rates**

Purpose: Provide policy related to the procurement and administration of contracts for architectural and engineering (A & E) services. This policy primarily addresses five components of this process: selection, negotiation, execution, administration, and supporting documentation retention.

Qualification based selection will be used for all architectural and engineering consultant contracts, except the following services which are excluded:

1. Emergency Procurement
2. Small Purchase
3. Sole Source Procurement
4. Design - Build Procurement
5. Institutes for Higher Education
6. Right of Way

Procedures for these type agreements are outlined in Departmental Directive 13, Engineering Directive Memorandum 35, Right of Way Acquisition Manual, Right of Way Appraisal Manual and SCDOT Procurement Policies and Procedures.

Selection will utilize criteria that measures a firm's expertise, past performance, project delivery, and present and projected workloads as well as other criteria unique to the specific selection.

Negotiations will be conducted on all A & E contracts and will include, at a minimum, a sufficient scope of services and an independent estimate for basic and supplemental agreements. Negotiations will not be required for basic "on call" agreements that do not establish costs.

Execution of all contracts will be performed by the appropriate Deputy Secretary. The Commission has given authority to advertise for consultant contracts by authorizing this advertising activity upon approval of the State Transportation Improvement Plan. The Commission must give final approval of the award for consultant contracts.

Administration of all contracts will be in accordance with all state and federal laws as noted in "Referrals." All costs and work reimbursed will be examined to determine if eligible per the contract.

Records to document and support the required activities and details of the contract will be maintained in accordance with the records retention schedule of SCDOT.

Additional detailed procedures are in the A & E Procurement Manual.


Secretary of Transportation

Office of Prime Responsibility: Secretary of Transportation
Division of Construction, Engineering & Planning
Division of Finance and Administration
Division of Mass Transit

History: Issued July 30, 2008
First Revision October 3, 2011



**2011 SCDOT Manual
For
Procurement and Administration of
Architectural and Engineering Services**

Table of Contents

Chapter 1 Requests for Professional Services

• Engineering Package A	4
• Approvals	5

Chapter 2 Advertisement and Receipt of Proposals

• Advertisement (SCBO)	6
• Receipt of Proposals	6
• Approvals	6

Chapter 3 Selection

• Evaluation Committee	7
• Proposal Distribution	7
• Proposal Evaluation and Scoring	7
• Final Recommendation Report	8
• Notification Letters	8
• Debriefings	8
• Approvals	8

Chapter 4 Negotiation

• Pre-Award Audits	9
• Pre-Award Audit Findings Resolution.....	9
• Prior Approval for On-Call Contract Modifications	9
• Scope of Service	9
• Fee Estimate and Negotiations	10
• Record of Negotiation Form (Form 8)	11
• Delivery of the Final Contract Package	11
• Approvals	12

Chapter 5 Contracts

• General	13
• Types of Contracts	13
• Methods of Compensation	14
• Distribution	15
• Notice to Proceed	15
• Limited Notice to Proceed	15
• Approvals	15

Chapter 6 Payment Process

- Invoices16
- Invoice Review16
- Final Payment17
- Approvals17

Chapter 7 Contract Administration & Records Retention

- Contract Administration.....18
- Performance Evaluations.....18
- Error and Omission18
- Records and Retention18
- Approvals19

Chapter 8 Approval of SCDOT Manual for Procurement and Administration of Architectural and Engineering Services

- Approval and Purpose of Manual20

Appendix

- Appendix A: Definition of Terms21
- Appendix B: Record of Negotiation22
- Appendix C: Engineering Package A24
- Appendix D: Professional Services Selection Evaluation Summary.....31
- Appendix E: Master Flowchart32

Chapter 1 - Requests for Professional Services

All requests for professional services will utilize Engineering Package A (Package) and be completed, signed, and submitted by the appropriate Director. The Package will be drafted by a member of the Director's staff, signed and submitted by the Director and approved by the Deputy Secretary. Federal Highway Administration (FHWA) approval of the scope of work and advertisement, including selection criteria, is required for all full oversight and on-call projects. For all consultant projects that include development of the environmental document and final design, the SCDOT Environmental Office will include a request for approval from FHWA of the NEPA environmental document and as well as concurrence from FHWA with SCDOT's objectivity review. Once approved by FHWA, the consultant will then be authorized to perform final engineering and design. Also, FHWA approval is required for any consultant contract where agency level management is included in the scope of services. The following items will be included:

Engineering Package A

Request for Professional Services (Form 1) – All items on this form must be filled in. Most items are self-explanatory with certain items detailed further below:

- The "Name of Responsible Area" will be the specific office under the appropriate Director responsible for the work (RPG1, OMAR, etc.).
- The "Total Estimated Cost" will be a programming estimate only and may be based on similar professional services efforts or simply be a percentage of the estimated construction cost. No detailed estimates are needed at this stage.
- The "Contract Manager for Negotiations" will be the person designated to serve as the point of contact responsible for the contract negotiations from the advertisement through execution of the contract.

Justification for Professional Services (Form 2) – This form should clearly state the reason for using outside professional services. These reasons are typically either special expertise not available within the Department (Ex. Aerial Photography) or lack of resources within the Department based on current and projected workloads.

Preliminary Scope of Services (Form 3) – This is the Department's preliminary scope of services which is developed internally. It should be general, but include all the major items required by the consultant, and should be of sufficient detail to begin scope discussions with the consultant once selected. A brief bulleted/outline format is acceptable.

Preliminary Estimate of Work Effort and Fee (Form 4) – The total cost on this form will be the same as that on Form 1 for "Total Estimated Cost". Again, this cost can simply be a percentage of construction cost.

Project Location Map (Form 5) – This should clearly show the project on a map or aerial photograph and graphically show the termini. It should also be reproducible in black and white.

Draft Advertisement (Form 6) – This should follow the standard format for typical SCDOT advertisements for professional services. The person preparing the package will draft the advertisement giving careful consideration to the elements included. The most critical elements will include details on the specific services requested which should be consistent with the scope detailed on Form 3, and also the specific selection criteria and percentage of weight for each category. The person preparing the Package should adjust the selection criteria and percentages as needed based on the specific service requested, subject to the approval of those signatures on Form 1.

Recommended Evaluation Committee (Form 7) – The Evaluation Committee will consist of a minimum of 3 voting members. FHWA will be invited to have a non-voting representative on the Committee for all full oversight projects. This form will include a list of names of specific persons to serve on the Evaluation Committee, as well as designate the Committee Chairman. Should non-voting members be needed, the list will clearly identify those that are non-voting; otherwise all listed will be assumed to be voting members. This Evaluation Committee will be set by the final approval of the Deputy Secretary's signature on Form 1.

Approval by the Director and Deputy Secretary

Final approval of Engineering Package A including the following:

- Form 1 - Approval of the use of professional services
- Form 2 - Approval of the justification
- Form 3 - Approval of the preliminary scope of services
- Form 4 - Approval of the preliminary estimate of work effort and fee
- Form 6 - Approval of the advertisement and selection criteria
- Form 7 - Approval of the Evaluation Committee and chairman

Approval by the Federal Highway Administration (as specified in the SCDOT/FHWA Stewardship and Oversight Plan)

Final approval of Engineering Package A including only the following:

- Form 3 - Approval of the preliminary scope of services for all full oversight and on-call projects and any consultant contract where agency level management is included in the scope of services.
- Form 6 - Approval of the advertisement and selection criteria for all full oversight and on-call projects and any consultant contract where agency level management is included in the scope of services.

Chapter 2 - Advertisement and Receipt of Proposals

Advertisement

Upon receipt of an approved Engineering Package A for professional consultant services, the Professional Services Manager will advertise the approved Request for Proposals (RFP, Form 6) in the *South Carolina Business Opportunities* (SCBO) at the next available publishing. Other publications may be used for advertisement where appropriate. Advertisement fees will be charged to the appropriate charge code as determined by the Contract Manager.

The Professional Services Manager will forward a copy of the advertisement as shown in SCBO upon publishing to the Contract Manager for their record.

Receipt of Proposals

The Professional Services Manager will be responsible for receipt of all proposals, and will ensure appropriate personnel are available to receive the proposals by the time and date specified in the SCBO advertisement. The Professional Services Manager will document the time and date of receipt of each proposal. The Professional Services Manager shall review all proposals for and document any omissions. The Professional Services Manager will keep one copy of all proposals for each RFP response.

Approval

Approval by Commission as per Departmental Directive 41.

Chapter 3 - Selection

Evaluation Committee

The Evaluation Committee will be set by the final approval of Engineering Package A by the Deputy Secretary.

Proposal Distribution

The Professional Services Manager shall be responsible for the following:

- Distributing proposals, package materials, and evaluation forms (including selection criteria) to each Evaluation Committee member.
 - Proposals
 - Evaluation Form
 - Performance Evaluation history (may include major sub-consultants)
 - Published Advertisement (copy of SCBO Ad)
 - Preliminary Scope of Services (Package A – Form 3)
 - Any supplemental scope of services referenced in the SCBO Ad
- Scheduling Evaluation Committee meeting(s).
- Securing signed confidentiality forms from all Evaluation Committee Members (voting and non-voting)
- Attending Evaluation Committee meeting(s) and documenting the results.

Proposal Evaluation and Scoring

Prior to the Evaluation Committee meeting, each member shall review the proposals and draft their preliminary evaluation scores based on all selection criteria, proposals, and other documents provided by the Professional Services Engineer. The Professional Services Engineer shall provide the committee with an overview of recent selections, ongoing solicitations and current consultant workloads.

The Evaluation Committee Meeting will be run by the Chairman of the Evaluation Committee. The Professional Services Manager shall be in attendance to compile scores and ensure procurement rules and regulations are followed.

Before each Evaluation Committee member finalizes his or her scores, the Evaluation Committee shall discuss the proposals and all other documents. The Evaluation Committee may request additional information from the proposer(s) via written documentation and/or interviews. At the conclusion of these discussions, each Evaluation Committee member will finalize their scores, based on all selection criteria included in the approved Engineering Package A, to be compiled by the Professional Services Manager. Any proposal determined by the committee to be non-responsive will receive a default score of zero (0).

The Professional Services Manager will record the Evaluation Committee members' final scores as directed by the Evaluation Committee. The Professional Services Manager shall rank the proposals according to the average of the Evaluation Committee's final scores. The final rankings shall be recorded on the Professional Services Selection Evaluation Summary (Appendix D.)

Final Recommendation Report

The Professional Services Engineer will prepare a report to the Deputy Secretary summarizing the evaluation process along with the Evaluation Committee's ranking. The report will recommend selection of the highest ranked firm. The report shall include:

- Memorandum cover letter
- Scoring Summary

Notification Letters

Once the selection is approved by the appropriate deputy secretary, the Professional Services Manager will send notification letters to all firms indicating selection.

Debriefings

All requests for debriefings must be received in writing from the firm to the Deputy Secretary. No debriefings will occur until a contract is executed with the selected firm.

Approval by the Deputy Secretary

Final Approval of the selected firm

- The Deputy Secretary will review the final recommendation report and approve or reject the committee's recommendation to begin negotiations with the highest ranked firm. If the committee's recommendation is rejected, the current solicitation will be terminated. The Deputy Secretary has the authority to cancel the project solicitation at any time, and may approve re-advertisement for proposals at a later date.

Chapter 4 - Negotiation

Once a firm(s) is selected, notification of the selected firm is sent to the Contract Manager for Negotiations and the Negotiation Administrator to begin negotiations with the selected firm(s). The following steps should be followed to complete the negotiation process. If the negotiation process is not followed in sequence, a letter from the appropriate director shall explain why the process was not followed.

Pre-Award Audits

An annual review will be performed on all active consultants by the Office of Contract Assurance to determine if they have a job cost accounting system, if they are financially capable, and approval of their overhead rate.

Pre-award audits of cost proposals will be requested by the Director of Contract Services on an as needed basis taking into consideration the following criteria:

- Complexity of the project.
- Proposed costs appear questionable/unreasonable.
- Significant findings in prior audits not addressed/corrected.

Pre-Award Audit Findings Resolution

Pre-award Audit findings will be resolved by the Director of Contract Services with assistance from the Contract Manager for Negotiations prior to the execution of an agreement or contract modification. Explanation and assistance will be requested from Office of Contract Assurance as necessary. The results of the resolution will be in writing by the Director of Contract Services to the Consultant with a copy to the Contract Manager for Negotiation.

Prior Approval for Contract Modifications

- Project Specific Basic Agreements (turn-key)
 - No prior approval is required to enter into contract negotiations for a contract modification to a Project Specific Basic Agreement. The Contract Manager is responsible to ensure the work must be within the original scope of advertisement for the project.
- Basic On-Call Agreements
 - Authorization from the applicable Deputy Secretary or their designee is required prior to entering into contract negotiations on any Contract Modification to a Basic On-Call Agreement. The following criteria will be used to evaluate and justify the selection of a firm from the on-call list:
 - Special expertise and knowledge required to perform scope of services
 - Value and volume of work pertaining to the specific on-call solicitation
 - Location of firm if deemed critical

Scope of Service

The Contract Manager for Negotiations shall be responsible for determining when the scope of services is sufficient for pricing and providing it to Negotiation Administrator. At the discretion of the Contract Manager for Negotiations, the scope of services may be provided to the consultant for pricing or may be developed with input from the consultant. The Record of Negotiation (Form 8) will note dates of scoping meetings or discussions, the date the scope of service was provided to the consultant for pricing, and any significant additions or deletions to the scope. The Negotiations Administrator is available to assist if requested by the Contract Manager for Negotiations.

Fee Estimates and Negotiations

After the Contract Manager has provided the scope of services to be used for pricing to the Office of Contract Services, independent cost estimates will be developed by SCDOT and the Consultant. The Contract Manager for Negotiations shall instruct the Consultant to develop their independent cost estimate. The Consultant shall not submit or share any details of their cost estimate until requested by the Office of Contract Services. The Contract Manager for Negotiations shall provide SCDOT's independent cost estimate to the Office of Contract Services. The Contract Manager for Negotiations shall prepare their internal estimate based upon the final scope of service submitted to the Office of Contract Services. The Office of Contract Services is available to provide assistance in obtaining labor rates, indirect cost rates, and direct cost rates as needed to assist in preparing the internal cost estimate and negotiation with the consultant. After receiving the SCDOT's independent cost estimate, the Negotiation Administrator shall request the Consultant's independent cost estimate. After receiving the Consultant's independent cost estimate, the estimate will be forwarded to the appropriate Contract Manager for Negotiations. To further clarify the order of these actions described above, the following steps shall be done in progression:

- * The Contract Manager for Negotiations shall instruct the Consultant to develop their independent cost estimate.
- The Contract Manager for Negotiations shall provide SCDOT's independent cost estimate to the Office of Contract Services.
- After receiving the SCDOT's independent cost estimate, the Negotiation Administrator shall request the Consultant's independent cost estimate.
- After receiving the Consultant's independent cost estimate, the estimate will be forwarded to the appropriate Contract Manager for Negotiations.

** NOTE: All estimates must be submitted using the approved cost estimate template established by the Department. The approved version can be found on our intranet for internal use and the internet under "Doing Business with SCDOT" for consultant usage. All estimates are governed by the applicable Department, State, and Federal laws and regulations. The fixed fee shall be negotiated after agreement on all other costs taking into consideration the financial and professional investment, extent, scope, complexity, duration of services, and the degree of responsibility to be assumed by the consultant and will be recorded in the record of negotiation.*

The Negotiation Team will be chaired by the Contract Manager for Negotiations, as defined in Engineering Package A, and consist of at a minimum, the Chairman and the Negotiation Administrator, as well as other members at the discretion of the Chairman.

The Contract Manager for Negotiations shall coordinate a negotiation meeting(s) between the Negotiation Team and the Consultant to negotiate an agreed upon final price. The Contract Manager of Negotiations shall address any concerns of the Negotiation Team members during the negotiations process. During the negotiation process, further adjustment(s) of the scope of services and cost estimates may occur. The Negotiation Administrator shall ensure that the negotiations process does not violate any applicable laws and regulations.

Once the Negotiation Team and the Consultant have agreed upon a final price, the Contract Manager for Negotiations shall assemble the Final Negotiation Package (reference page 14).

If the Negotiation Team determines that further negotiations will not result in an acceptable agreement, the Negotiation Administrator will notify the Director of Contract Services in writing giving the reason(s) for terminating negotiations. The appropriate Deputy Secretary will approve termination of negotiations and notify the firm in writing that negotiations are terminated stating the reason(s) given by the Negotiation Administrator.

A copy of this letter will be provided to the Director of Contract Services, appropriate Director, Team

Chairperson, and Negotiation Administrator. The appropriate Deputy Secretary will notify the Negotiation Team to begin the negotiation process with the next firm in the ranking order of negotiation.

Record of Negotiation Form (Form 8)

This form is found on the intranet under Electronic Forms under the General Forms tab. The following items further detail specific sections of the Record of Negotiation form. Most items are self-explanatory with certain items detailed further below.

- After identifying the type of contract (New Basic Contract or Contract Modification) used in negotiation, provide all applicable documentation to identify the type of project. (Project Name, Original Agreement Contract Number, Date, and File Number, PIN, Charge Code, etc.)
- Ensure that every cost estimate in the negotiation process is recorded and that all submitted internal cost estimates reflect the date submitted to the Office of Contract Services. The Consultant estimate(s) should be recorded on the date the Record of Negotiation is received by the Office of Contract Services. (Final and first estimate may be the same.)
- Provide explanation/justification of cost changes in the SCDOT and Consultant estimates in the comments section or attach separate documentation referenced on the Record of Negotiation.
- The Contract Manager for Negotiations will coordinate with the Manager for Contracts/Special Projects to have the appropriate contract document written and made a part of the Final Negotiation Package.
- The Contract Manager for Negotiations, Negotiation Administrator and the appropriate Director must sign and date the Record of Negotiation Form as to their agreement to execute the contract and submit it to the Office of Contract Services.

Delivery of the Final Negotiation Package

The Contract Manager for Negotiations shall submit the Final Negotiation Package to the applicable Director to process. The applicable Director shall submit the Final Negotiation Package to the Office of Contract Services with proper signatures.

The Final Negotiation Package documentation at a minimum shall consist of:

1. Authorization Form (currently Commission Agenda Transmittal Form)
2. Letter of Transmittal to include signature and date of Contract Manager of Negotiation
3. Record of Negotiation Form (including all applicable negotiation minutes).
4. Two (2) original copies of the contract document including:
 - The final scope of services (attachment to the contract)
 - The final negotiated fee estimate (attachment to the contract)
5. Prior approval by Deputy Secretary for any On-Call Contract Modifications
6. A DBE letter is required when a DBE is not utilized
7. Any other supporting documentation of the negotiation

Approval by Deputy Secretary

- Prior approval for on-call contract modification
- Termination of negotiation

Approval by FHWA

- Approval of scope of service for contract modification when outside the original approved scope of service

Approval by the Director

- Record of Negotiation
- Authorization Form (Currently Commission Agenda Transmittal Form)

Approval by the Contract Manager of Negotiations

- Record of Negotiation

Approval by the Director of Contract Services or Designee

- Record of Negotiation

Chapter 5 - Contracts

General

At the request of the Contract Manager for Negotiations, the Manager for Contracts/Special Projects will use the appropriate template to prepare two (2) original contract documents and will forward them to the Contract Manager for Negotiations. The Contract Manager for Negotiations will send the Final Negotiation Package (reference page 14) to the Office of Contract Services for their review/approval. The Office of Contract services will send the two original contract documents to the Consultant for their review and signatures. The consultant will return both copies of the partially executed contract to the Office of Contract Services. The Office of Contract Services will assemble and route the Final Negotiation Package to the appropriate Deputy for Commission approval. After receiving Commission approval, the appropriate Deputy will forward the approved package to the Office of Contract Services for execution. The Office of Contract Services will be responsible for getting a contract number assigned from the Accounting Office and sending the executed contract to the appropriate Contract Manager. After receiving the executed contract, the Contract Manager will issue a Notice to Proceed to the Consultant.

Templates of standard contracts will be maintained by the Manager for Contracts/Special Projects in coordination with Legal Office.

Types of Contracts

Project Specific Basic Agreement

The standard agreement used to contract with a consultant for a stated scope of services on a specific project.

On-Call Agreement

These agreements are typically entered into for a limited time period, normally three years. The agreement does not contain any details about particular project work assignments but does include all necessary terms and conditions to bind the parties into a contractual relationship.

- **Basic On-Call Agreement**

No estimated costs are included in the basic agreement. Contract modifications are used to assign work to these on-call consultants.

- **Work Order On-Call Agreement**

The Commission authorizes use of on-call consultants. No further authorization is required for work order on-call agreements. The Professional Services Engineer is responsible for ensuring the total amount of work authorized through work order on-call agreements does not exceed the amount approved by the Commission. For work order on-call agreements, unit costs for specific tasks are negotiated as part of the basic on-call agreement. The Contract Manager desiring to use consultants from the Work Order On-Call Agreement will request the next available consultant from the Professional Services and Participation Agreements Office. Once the scope is defined, the Contract Manager will issue a work order to assign work to the selected consultant and a copy of the work order will be submitted to the Office of Contract Services. Once the work is complete, the Contract Manager will submit the request for payment; the complete work order file will be forwarded to the Office of Contract Services by the Professional Services and Participation Office. If it is determined additional work is required outside of the work order, a supplemental work order is required. The Professional Services Engineer will provide monthly reports to the Deputy Secretary for Engineering and his assistants, listing the amount of work authorized for work order on-call agreements and any supplemental work orders that may be generated.

For anticipated reoccurring unit price work not in the original agreement, the Contract Manager will coordinate with the Contract Services Office and the Professional Services and Participation Agreements Office in order to negotiate the new unit price(s).

Exceptions to work outside pre-approved negotiated prices must be negotiated in coordination with the Contract Services Office and Professional Services and Participation Agreements Office.

Contract Modifications

A written agreement used to supplement or amend a basic agreement.

Contract Modification for Project Specific Basic Agreement – A written agreement used subsequent to a Project Specific agreement to incorporate unforeseen work incidental to proper completion of the scope of work in the Basic agreement. Any alteration in the terms of the basic agreement that changes the cost, character, complexity, or schedule of work or significantly changes the conditions under which the work is required to be performed requires a Contract Modification. No prior approval is required for a contract modification on an existing project specific basic agreement. The Contract Manager is responsible to ensure the contract modification must be within the original scope of advertisement for the project.

Contract Modification for On-Call Basic Agreement – A written agreement used subsequent to a basic on-call agreement that defines a specific scope of work for a specific project at a specified cost. Contract Modifications are used for on-call agreements when no estimated costs were included in the basic agreement.

Methods of Compensation

The usual methods of compensation for SCDOT Consultant Contracts are:

Lump Sum – the consultant performs the services stated in the contract for an agreed upon amount. This method of payment is appropriate only if the extent, scope, complexity, character and duration of the work to be required can be established to a degree that just compensation can be determined and evaluated by all parties at the time of negotiations. Contract modifications to lump sum agreements are generally not allowed. The use of lump sum is encouraged whenever feasible. This method of payment provides the maximum incentive for the consultant to control costs and perform effectively and imposes a minimum administrative burden on the SCDOT. Periodic payouts of lump sum agreements are allowed but the method defining payment should be included in the contract. (For example, based on percentage of work completed)

Cost Plus Fixed Fee - the consultant is reimbursed for all eligible direct and indirect costs plus predetermined fixed amount as a net fee. Cost plus fixed fee contracts are appropriate when the extent, scope, complexity, character or duration of the project cannot reasonably be defined at the time of negotiation. The contract includes a maximum amount payable under the agreement. The fixed fee should be expressed as an amount, not a percentage. This type of agreement includes an attachment with a complete breakdown of estimated costs by major element or task.

Unit Cost – the consultant is paid on the basis of negotiated rate per unit of work performed. This type of contract is appropriate when the cost per unit can be determined with reasonable accuracy, but the extent of work is indefinite. This type contract is normally used for repetitive tasks. Rates are negotiated for specified tasks and the negotiated rates are in place for the life of the contract and may include escalation factors. The agreement should specify what is included in the rate. For example, if the consultant is allowed to charge travel expenses in addition to the negotiated rate, that fact should be included in the contract. This type of contract may include specific fixed hourly rates or daily rates for each employee classification directly engaged in the work. The agreed upon rates include the consultant's estimated costs, overhead and net fee.

A sub consultant's agreement with the prime may be lump sum even when the prime consultant's agreement with SCDOT is cost plus fixed fee. However the type of contract should be based on the same principles as explained above.

Distribution

One original copy of the executed contract is retained by the SCDOT Contract Services Office. SCDOT Contracts Services Office will forward one original executed contract to the Contract Manager for distribution to the consultant.

Notice to Proceed

The Contract Manager will issue a written notice to proceed once the contract is executed. If Federal funds are to be utilized, the Contract Manager will ensure Federal funds are available and authorized prior to issuing the written notice to proceed.

Limited Notice to Proceed

A limited notice to proceed may be issued by the appropriate deputy or their designee to authorize work prior to execution of the contract.

Approval by FHWA

- Basic Contract templates and any revisions

Approval by SCDOT Legal Office

- Basic Contract templates and any revisions

Approval by Deputy Secretary

- Limited notices to proceed shall be approved by the appropriate deputy.

Chapter 6 - Payment Process

Invoices

After the notice to proceed has been issued, work may begin on the contract. Progress payments will be made according to the terms of the subject contract. Consultants must submit an acceptable invoice to the department to receive payment.

Details on specific requirements for each type of contract payment method are included below. Contract Managers are responsible for ensuring consultants are aware of the requirements. All invoices must include a signed statement by appropriate representative of the firm, certifying that all charges are true and accurate and in accordance with the contract. Submissions for progress payments should include the following for both prime and applicable sub consultants:

Lump Sum Contracts:

- a completed standard invoice
- total percent of each contract task completed to date
- total percent of each contract task completed during current billing cycle

Cost Plus Fixed Fee Contracts:

- a completed standard invoice
- a cost summary
 - billing period
 - total labor costs
 - overhead and profit
 - total direct cost with breakdown
 - cost per sub consultant
- a person-hour summary report (employee name, classification, rate, # of hours)
- direct cost break down
- status as specified by the Contract Manager

Note: The basis for progress payments on lump sum agreements must be specified in the contract. Program Managers should ensure progress payments are appropriate under the terms of the agreement.

Unit Cost Contracts:

- a completed standard invoice
- total units completed to date
- total units completed during current billing cycle

Invoice Review

The Contract Manager will review the invoice to ensure costs billed are appropriate for work accomplished during the billing period. The Contract Manager will ensure the billing is in reasonable compliance with the contract and other written authorizations and in accordance with contract documents.

If any errors are discovered that would prevent payment, the Contract Manager should contact the consultant immediately. The consultant should correct the errors and submit a revised invoice.

Once the invoice is deemed acceptable, the Contract Manager initiates a SCDOT pay request. The Contract Manager recommends payment and a higher-level supervisor will approve. After appropriate signatures are obtained, the payment request should be sent to the Office of Contract Services for

processing.

Final Payment

The SCDOT pay request should indicate that this is the "Final Invoice" to be submitted on the project. The Contract Services Office will notify the Office of Contract Assurance (OCA) that final invoice has been paid on the project. OCA will use a risk based approach to select projects for final audit. Criteria used in the risk assessment will include: dollar amount of contract, type of contract and experience with the consultants to include known problems or concerns about the firms performing work on the project. If a final audit will not be performed, OCA will notify Contract Services that the project can be closed. For projects selected for a final audit, the audit report will be provided to the Director of Contract Services. The Director of Contract Services will take appropriate action based on the final audit report. Appropriate action could include processing a payment to the consultant for additional allowed costs, issuing a request to the consultant for repayment of costs questioned by the audit, or closing the project as paid. The Director of Contract Services should copy OCA with the letter mailed to the consultant on resolution of the audit findings. Once final payment has been made or the required refund is received, the project may be closed.

Approval by Contract Manager and Supervisor

- SCDOT pay requests

Chapter 7 - Contract Administration & Records Retention

Contract Administration

Consultants providing design services will not be used to perform construction management and engineering inspection on the same project. The Deputy Secretary, and when federal funds are used, the FHWA must approve exceptions to this restriction. This restriction does not apply to design services performed during construction such as shop drawing reviews or responding to design issues that arise during construction.

- The Contract Manager, as designated by the Director, shall administer the contract under all applicable guidelines and procedures established by this directive, state and federal procurement procedures and departmental policies and maintain documentation of all decisions affecting the contract and contract modifications.

Performance Evaluations

The Professional Services Manager will conduct a performance evaluation of consultants on all active projects semi annually (April & October) with all Contract Managers. The Contract Manager will evaluate and discuss interim contract performance with the consultant and submit the performance evaluation to the Professional Services Manager. All performance evaluations and the summary evaluation report will be noted "Confidential" and not to be shared with any firm except for the individual performance evaluation for that particular firm. The Professional Service Manager will provide a semiannual summary performance evaluation report to the appropriate Deputy Secretary. In addition, the Professional Services Manager will provide the Evaluation Committee a complete performance evaluation summary for those consultants responding to specific advertisements as noted in Chapter 3. Upon substantial completion of a project, the Contract Manager will conduct a final performance evaluation with the consultant and prepare and submit a final performance evaluation report to the Professional Services Manager.

Error and/or Omission

If an error and/or omission is discovered, the appropriate Director will advise the Contract Manager and will follow procedures as outlined in Engineering Memorandum Directive 38.

Records and Retention

- Director of Contract Services or Designee
 - Documentation of authorization (i.e., Commission Approval and/or Deputy Secretary Approval)
 - Commission Authorization Form (when required)
 - Original contract and/or contract modifications
 - Documentation of negotiation process
 - ◆ Record of negotiation form (i.e., inclusive of documentation of process)
 - ◆ Approved cost estimate template(s) - Internal and Consultant
 - ◆ Audit reports (when required)
 - ◆ Negotiation Minutes
- Professional Service Manager or Designee
 - Documentation of Commission approval (shared information with Contract Services)
 - Performance evaluations (if applicable)
 - Claims
 - Proposals/letters of interest
- Accounting Department
 - Invoice and Form 608

All records will be retained according to the approved Departmental retention schedules.

Approval by Deputy Secretary

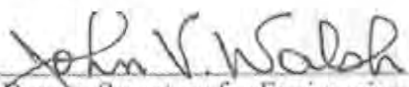
- The use of the consulting firm serving as the Engineer of Record to perform construction management and inspection services on the same project.

Approval by FHWA

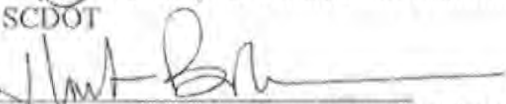
- For federally funded projects, the use of the consulting firm serving as the Engineer of Record to perform construction management and inspection services on the same project.

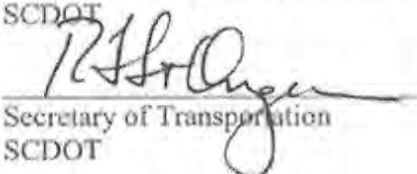
Chapter 8 – Approval of SCDOT Manual for Procurement and Administration of Architectural and Engineering Services

The purpose of this manual is to provide SCDOT staff with guidance and direction with regards to the procurement and administration of Architectural & Engineering Services as provided in Departmental Directive 41. Any modifications of this manual require approval of the Secretary of Transportation and the FHWA.

Recommended: 
Deputy Secretary for Engineering
SCDOT

Recommended: 
Deputy Secretary for Finance and Administration
SCDOT

Recommended: 
Deputy Secretary for Intermodal and Freight Programs
SCDOT

Approved: 
Secretary of Transportation
SCDOT

Effective Date: 10/3/2011

Cancels and supersedes:

South Carolina Department of Highways and Public Transportation Engineering and Procedures Memorandum:

- R-1 - July 1, 1975
- R-2 - May 25, 1976
- R-3 - November 8, 1976
- R-4 - February 8, 1982
- R-5 - December 7, 1983
- R-1 - July 31, 1986

Professional Services Acquisition- Architectural and/or Engineering Firms, modified January 11, 1988; July 16, 1992; January 22, 1993; February 18, 1993

South Carolina Department of Transportation Engineering Policies and Procedures Memorandum:

- R-1- January 1, 1995
- R-1- modified June 1, 1999
- Departmental Directive No. 41 – April 30, 2003
- Departmental Directive No. 41 – modified May 1, 2007
- Departmental Directive No. 41 – modified July 30, 2008

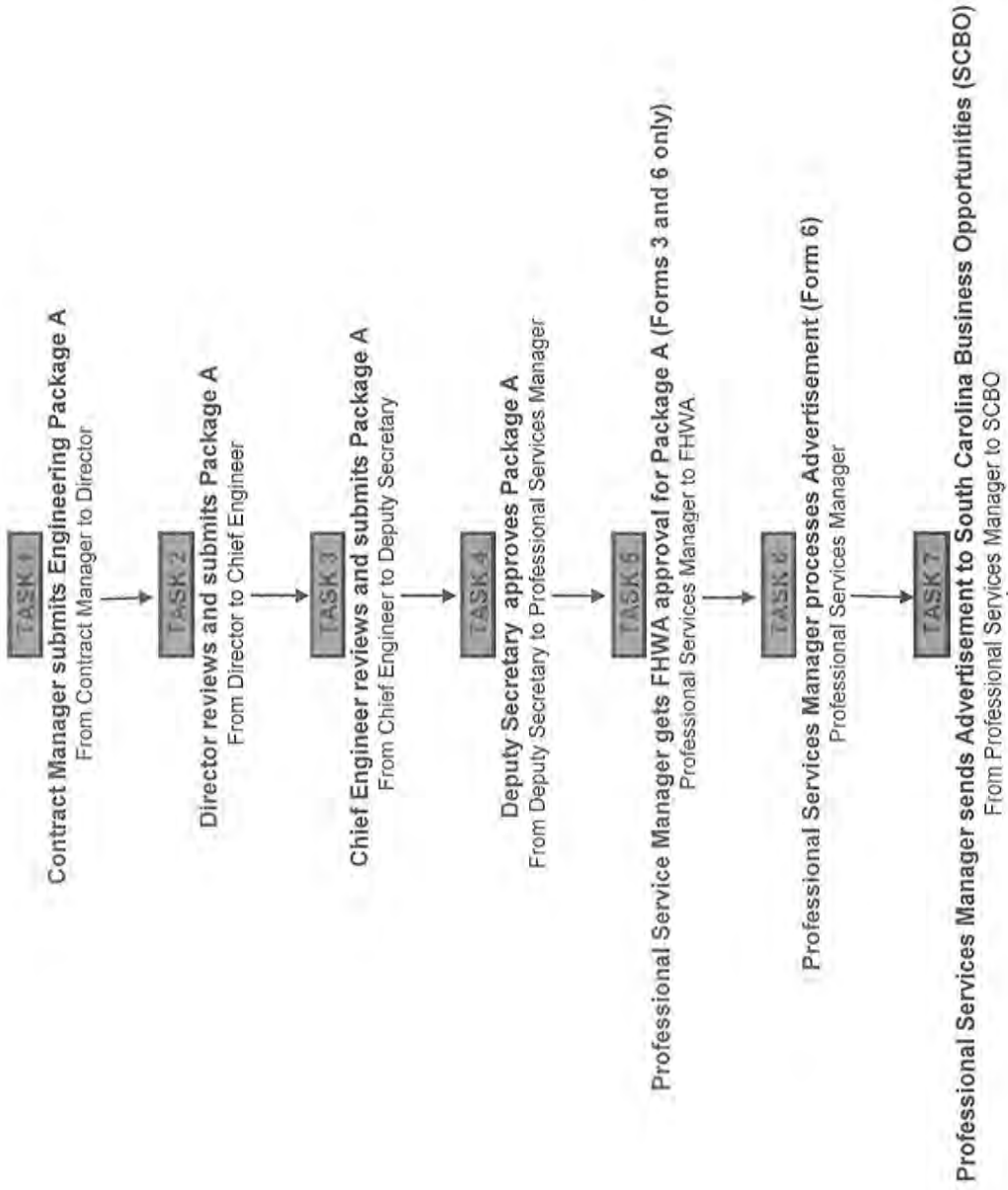
Appendix A

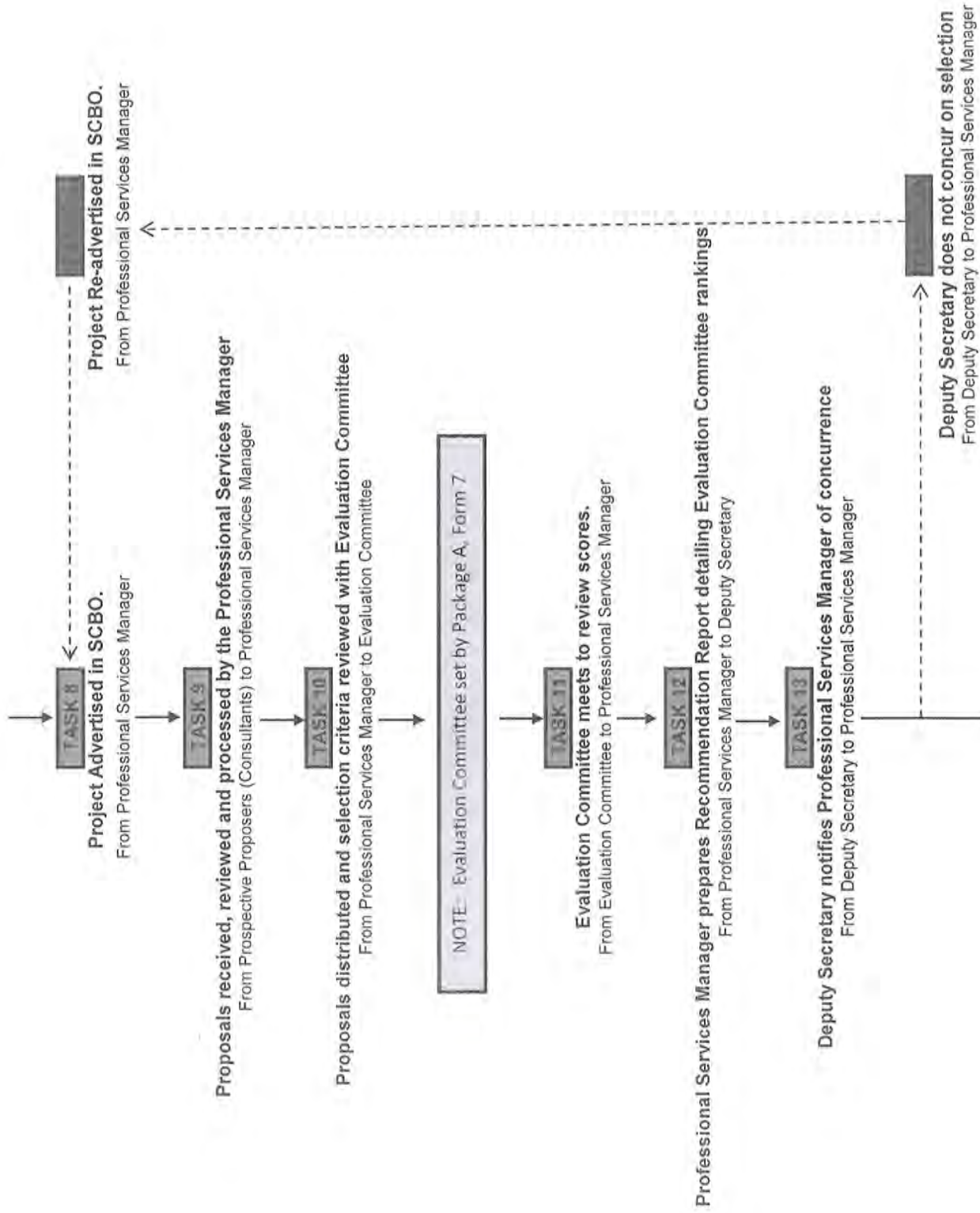
Definition of Terms

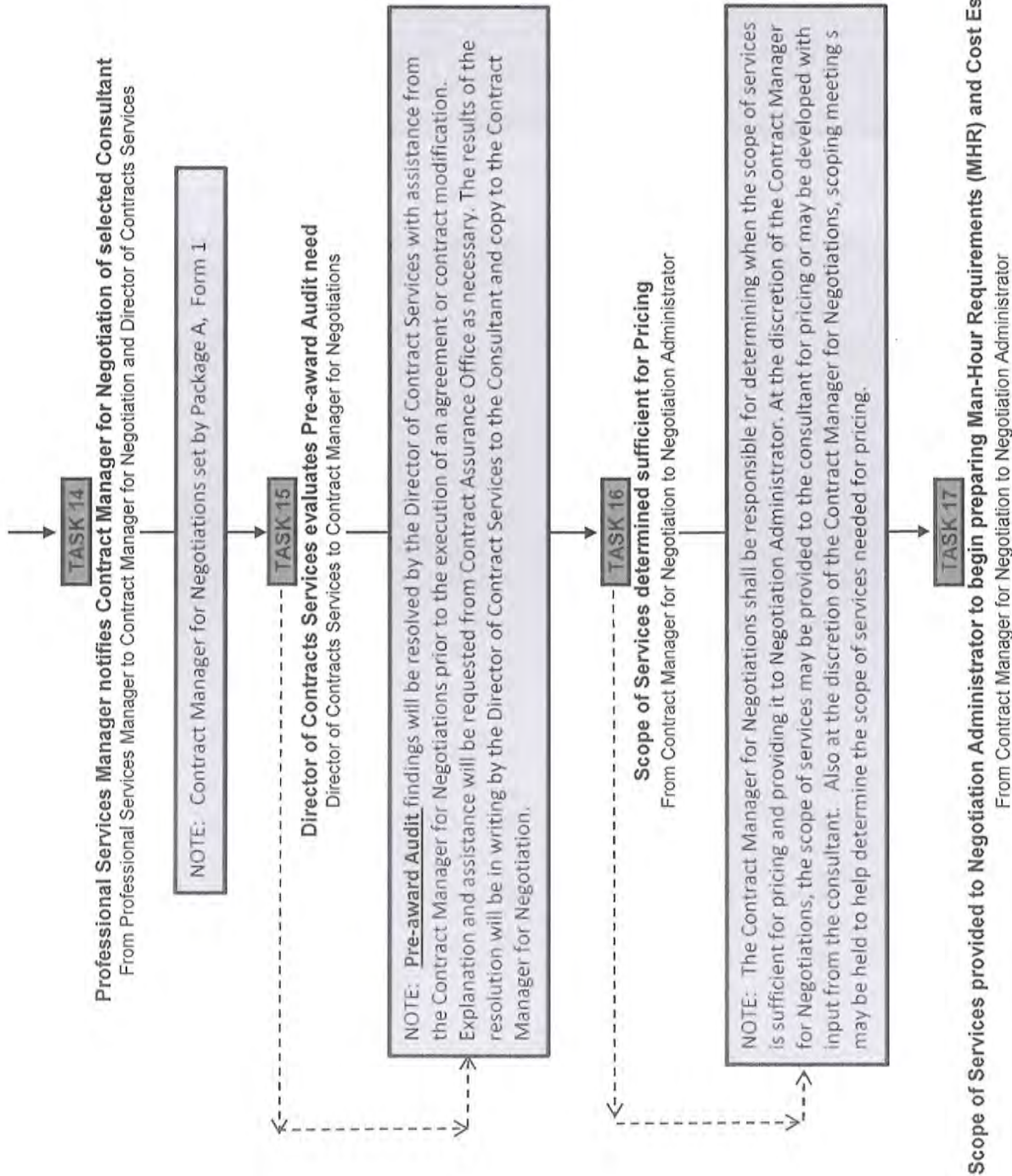
PERSONS RESPONSIBLE FOR PROCESSES UNDER THIS DIRECTIVE

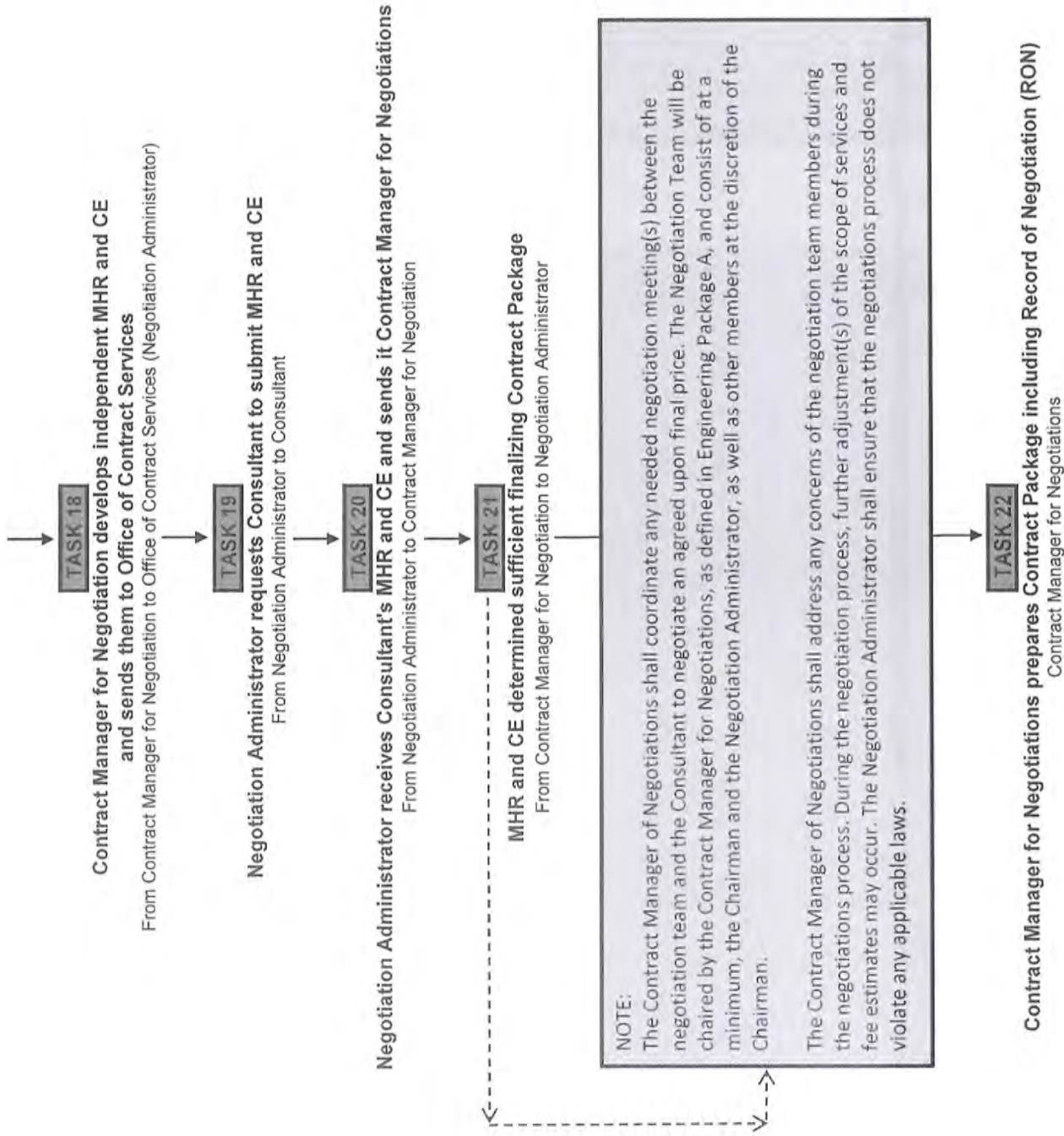
- 1) **Negotiation Administrator** – The Department employee in the Office of Contract Services responsible for assisting Department staff in the estimating, negotiation and record retention process covered under this Directive.
- 2) **Commission** – The administrative and governing authority of the South Carolina Department of Transportation appointed or elected in accordance with the Code of Laws of South Carolina, 1976, as amended.
- 3) **Contract Manager** - The Department employee responsible for the day-to-day administration and management of a consultant contract after the contract has been completed and signed, who is under supervision of a Director.
- 4) **Contract Manager for Negotiation** – The Department employee designated to serve as the point of contact responsible for the contract negotiations from the advertisement through execution of the contract.
- 5) **Director** - For purposes of this manual, the appropriate Department employee who has been authorized by his or her Deputy Secretary to initiate requests for consultant services and who is responsible for initiating such requests (i.e. DOC, Director of Preconstruction, DOTE, etc.) and appoints and supervises the Contract Manager.
- 6) **Director of Contract Services** – The Department employee responsible for assuring compliance with the procedures and assisting Directors, or representatives, in negotiation and administration of consultant contracts. The Director of Contract Services may choose to designate a specific employee to handle the responsibilities assigned to him or her pursuant to this Directive.
- 7) **Evaluation Committee** - A group of knowledgeable individuals and technical experts appointed by the appropriate Deputy Secretary to be responsible for the consultant selection process.
- 8) **Professional Services Manager** – The Department employee responsible for coordinating the selection of consultants for projects exempt from the State Procurement Code.
- 9) **Professional Services Engineer** – The Department employee responsible for Engineering's Professional Services & Participation Agreements Office.
- 10) **Secretary of Transportation** - The chief administrative officer of the South Carolina Department of Transportation.
- 11) **Manager for Contracts/Special Projects** – Member of the Professional Services and Participation Agreements Office responsible for maintaining contract templates and writing contracts.

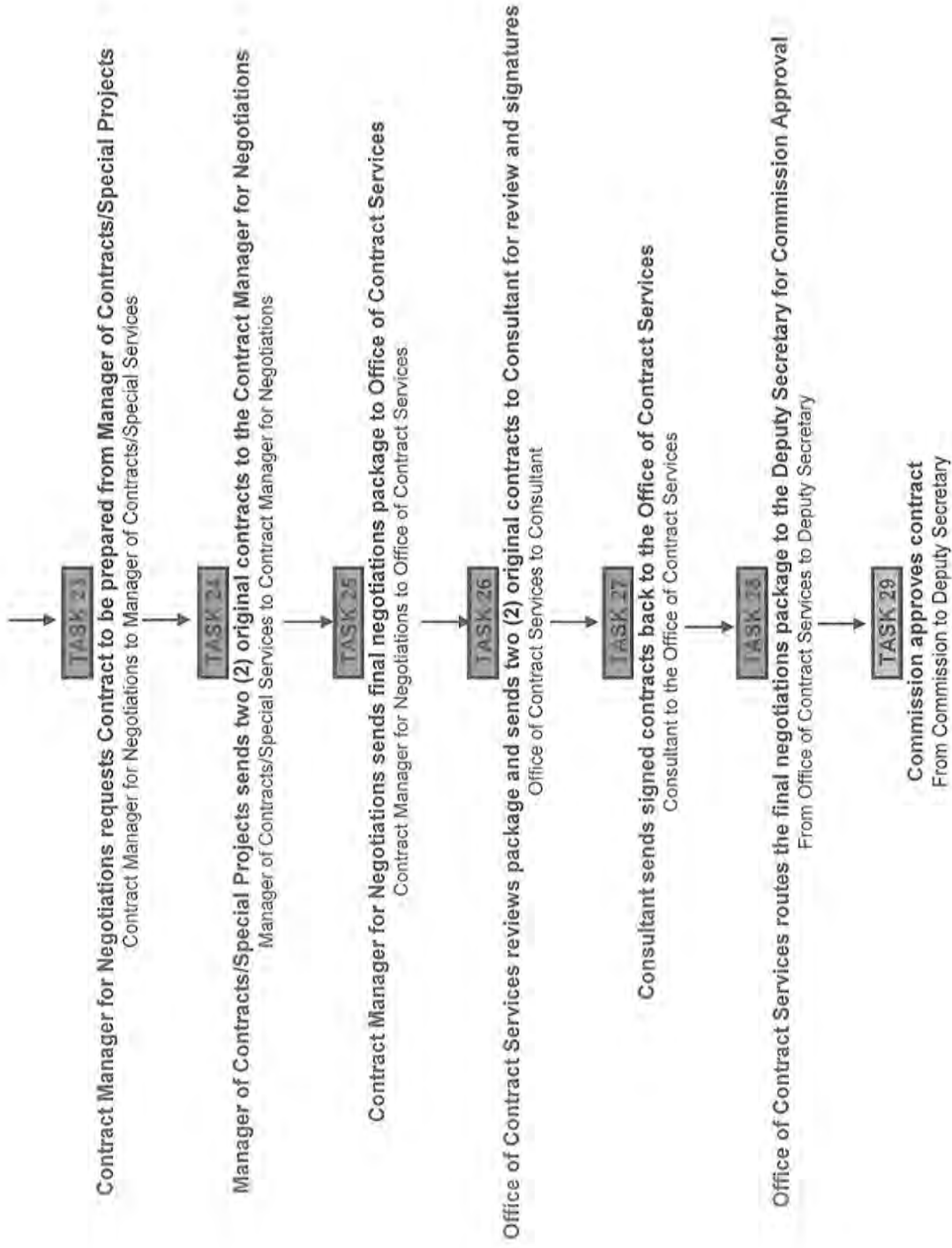
Master Flow Chart Request for Professional Services

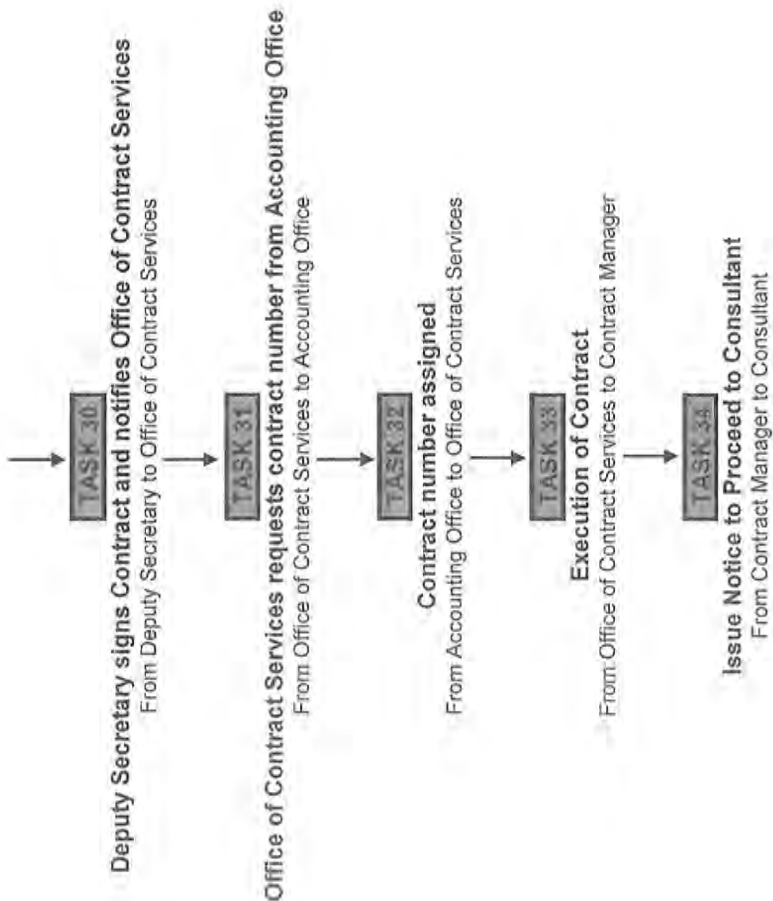












Appendix C

Example Package A

SCDOT Commission Agenda Transmittal Form

For Commission Meeting of: August 21, 2008

- RATIFICATION
- APPROVAL
- CERTIFICATION
- FOR INFORMATION ONLY
- CUFF ITEM FOR APPROVAL

DETAILED DESCRIPTION:

The Department requests Commission approval to advertise for and enter into a turn-key consultant contract for the US 78 bridge replacement over S-39 and SCL Railroad in Charleston. This project is in Commission District 6.

The project is funded by the FY 2010-2011 Federal Bridge Replacement Program which was approved by the Commission at its June 19, 2008 meeting, and has been identified on the Statewide Bridge Replacement Priority List per Act 114.

MRL
Recommended By: *Robert L. Pitt* Dir. of Preconst. 7/25/08
Signature & Title Date

WJW
JM
Deputy Secretary *[Signature]* 7/30/08
Division Director Approval: Signature Date

Secretary Approval: _____ Date

REQUEST FOR PROFESSIONAL SERVICES

To Be Completed by Director

Name of Responsible Area	<u>RPG 1</u>	Person	<u>Anthony W. Fullaw</u>
Road Number	<u>US 78</u>		
Project Name	<u>Replace Bridge on US 78 Crossing S-39 and the SCL Railroad</u>		
Limits: From	<u>MP 17.72</u>	To	<u>MP 19.32 (Azalea Drive, S-894)</u>
Total Estimated Cost	<u>1,505,000</u>	Fiscal Year Pgmmed.	<u>08</u>
		Fund	<u>Bridge</u>
Required Documentation Checklist:			
<u>Comments:</u>	Justification for Professional Services (Form 2)	<input checked="" type="checkbox"/>	
	Scope of Services (Preliminary) (Form 3)	<input checked="" type="checkbox"/>	
	Preliminary Estimate of Work Effort and Fee (Form 4)	<input checked="" type="checkbox"/>	
	Project Location Map (Form 5)	<input checked="" type="checkbox"/>	
	Draft Advertisement (Form 6)	<input checked="" type="checkbox"/>	
	Project is in Work Program	<input type="checkbox"/>	
	Information Reviewed Checklist:	Comments Attached	<input type="checkbox"/>
<input checked="" type="checkbox"/> Recommended for Use of Non-Department Services and Advertisement	<u>Robert D. Pitt</u> Director (Signature)	<u>7/25/08</u> Date	

To be Completed by Manager of Federal Procurement

<input checked="" type="checkbox"/>	Date Received from Requesting Unit	<u>7/29/08</u>
Package Contains All Required Forms	FHWA Approval Scope and Advertisement (Letter Attached)	<input type="checkbox"/>
	Commission Approval	<u>8/21/08</u>
	<u>Wendy Haring Swarth</u> Manager of Federal Procurement (Signature)	<u>7/29/08</u> Date

To be Completed by Deputy Secretary

Additional instructions:	Approved for outside services
_____	<u>[Signature]</u> Deputy Secretary (Signature)
_____	Date: <u>8/21/08</u>

REQUEST FOR PROFESSIONAL SERVICES PACKAGE

Justification for Professional Services

Project Name: Replace Bridge on US 78 Crossing S-39 and the SCL Railroad

Due to current workload requirements and the finite size of in-house staff, it is recommended that SCDOT select an engineering consultant firm to assist with the development of this project. The Department does not have sufficient staff to develop this project within the required time frame without delaying development of other critical projects.

REQUEST FOR PROFESSIONAL SERVICES PACKAGE

Scope of Services (Preliminary)

Project Name: Replace Bridge on US 78 Crossing S-39 and the SCL Railroad

Task I - Project Management

Project organization, management, scoping and coordination with the SCDOT Program Manager, Federal Highway Administration, municipalities, and railroad
Conduct and attend resource agency coordination, partnering, and public involvement meetings
Provide frequent budget, schedule, cost estimate and expenditure reports
Other duties as deemed necessary by the Program Development Engineer

Task II - Preliminary plans and conceptual designs

Perform surveys and geotechnical investigations
Prepare design criteria and typical sections
Identify and analyze various bridge replacement alternatives
Develop conceptual plans for the preferred bridge replacement alternative
Identify preliminary right of way requirements and environmental impacts

Task III- Environmental and NEPA Compliance

Perform threatened and endangered species surveys and cultural resource investigations
Identify, quantify and address wetland and water quality impacts
Complete Phase I environmental site assessment
Perform a noise analysis
Generate appropriate environmental documentation for submittal to FHWA
Generate public meeting displays, exhibits and meeting handouts
Provide written response to public meeting comments
Organize, schedule and conduct public information meetings or hearings as needed
Prepare permit packages
Generate lead based paint and asbestos reports

Task IV- Utility Coordination

Perform a SUE survey
Identify utility impacts utilities and coordinate with utility providers to relocate or avoid conflicts

Task V -Right of Way Plans

Develop property strip maps, right of way data sheets, reference data sheets, and conceptual traffic control plans
Develop plan and profile sheets and cross sections
Generate a preliminary cost estimate
Generate roadway hydraulics and design and incorporate roadway storm drainage system and erosion control measures into plans

Task VI -Final Plans

Develop traffic control, signing and marking plans
Initiate development of the Transportation Management Plan
Generate and include summary of estimated quantities, finalized typical sections, geotechnical/special details, plans and profile sheets, cross sections, stakeout plans, control points, reference data sheet, moving and disposal items, general construction notes
Generate final construction estimate and special provisions and specifications

Task VII- Construction Support

Perform shop drawing reviews and attend preconstruction, prebid, and partnering meetings

REQUEST FOR PROFESSIONAL SERVICES PACKAGE

Preliminary Estimate of Work Effort and Fee

Project Name: Replace Bridge on US 78 Crossing S-39 and the SCL Railroad

Task I - Project Management	\$ 90,000
Task II - Preliminary Plans and Conceptual Designs	\$330,000
Task III- Environmental and NEPA Compliance	\$180,000
Task IV- Utility Coordination	\$103,000
Task V -Right of Way Plans	\$ 92,000
Task VI -Final Plans	\$ 630,000
Task VII- Construction Support	\$ 80,000

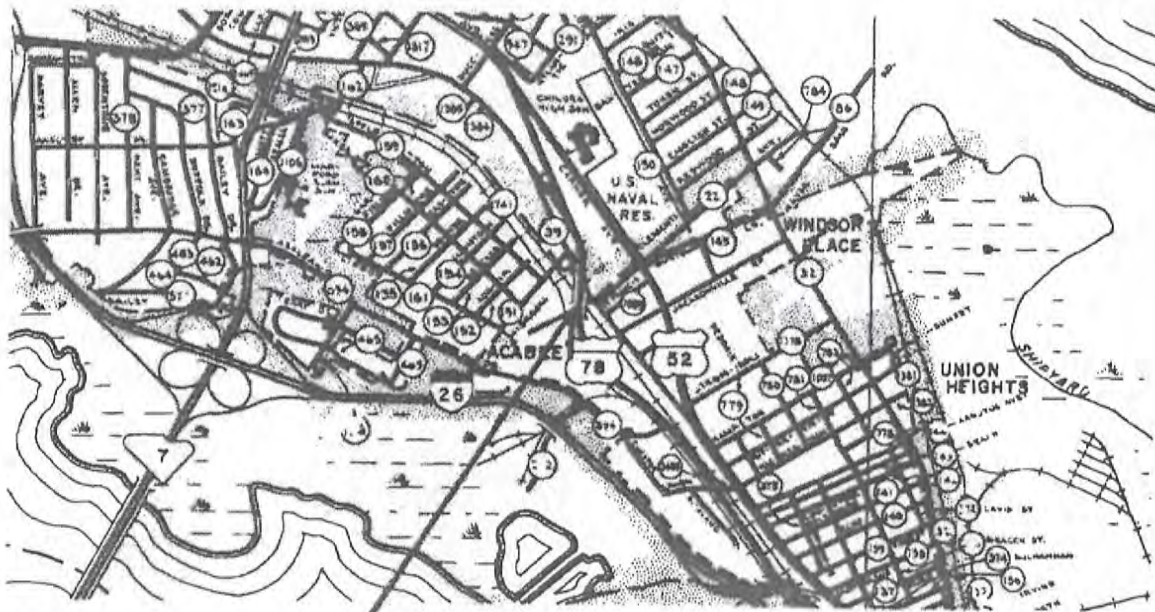
Total Labor , Direct, Overhead, and profit are included in each task item

Total \$1,505,000.00

REQUEST FOR PROFESSIONAL SERVICES PACKAGE

Project Location Map

Project Name: Replace Bridge on US 78 Crossing S-39 and the SCL Railroad



PROJECT LOCATION
US 78 @ S-39/SCL RR

ENGINEERING PACKAGE LETTER A
FORM 6

REQUEST FOR PROFESSIONAL SERVICES PACKAGE

Draft Advertisement

Project Name: Replace Bridge on US 78 Crossing S-39 and the SCL Railroad

Attached

NOTICE TO ALL CONSULTING ENGINEERING FIRMS

The **SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION (SCDOT)** requests a letter of interest and a current resume of qualifications from all interested consulting firms experienced in providing engineering services necessary for the preparation of environmental studies and documentation and preliminary, right of way, and final plans for the proposed bridge replacement of the US 78 bridge crossing Secondary 39 and SCL Railroad tracks in Charleston County.

Requested services include but are not limited to: project management, traffic studies, alternative analysis, environmental studies and documentation, public meeting/hearing plans, displays and support, preliminary, right-of-way and final construction plans, utility coordination, and construction phase services.

In consultant selection, the SCDOT will consider and conduct a comparative ranking of the firms submitting based upon the following: experience, qualifications, and technical competence of the staff proposed for the type of work required, 25%; past performance of the proposing firm and subconsultants proposed on similar type projects and/or ability to perform all aspects of services, 20%; past performance in utilizing DBEs, 5%; familiarity of proposed staff with SCDOT practices and procedures, 15%; availability of key staff and the ability to mobilize quickly and meet project schedules, 25%; DBE utilization plan, 5%; and current volume of work with SCDOT, 5%. Each proposal is required to indicate the amount of work expected to be paid, on a percentage basis, to each firm identified as providing a service in the proposal.

Consulting firms interested in being considered for these projects should respond with ten (10) hard copies and one (1) copy on CD of the following: letter of interest, current resume of qualifications, a direct response to each of the selection criteria identified above, FORMS SF 254 and SF 255 (both forms are to be provided for the primary firm and any sub-consultants), and any other pertinent information. The preceding, with the exception of Forms SF 254 and SF 255, shall be limited to 20 double-spaced pages printed on one side only. The SCDOT selection will be based on information submitted; however, additional information and/or an interview may be required.

All responders must visibly mark as "CONFIDENTIAL" each part of their submission that they consider to contain proprietary information the release of which would constitute an unreasonable invasion of privacy. All unmarked pages will be subject to release in accordance with law. Proposer should be prepared, upon request, to provide justification of why such materials should not be disclosed under the South Carolina Freedom of Information Act, S.C. Code Section 30-4-10, et seq.

Consultants shall comply with Title VI of the Civil Rights Act of 1964. The SCDOT strongly encourages the use of and involvement of Disadvantaged Business Enterprises (DBE) on this project.

The SCDOT has established a maximum hourly rate for firm's employees of \$43.00. The contract will be on the basis of costs plus a fixed fee with a contract maximum or a lump sum basis at the discretion of the SCDOT.

All proposals should be submitted to Wendy Hollingsworth, Office of Procurement, Room 101, at the South Carolina Department of Transportation, PO Box 191, Columbia, SC, 29202, or 955 Park Street, Room 101, Columbia, SC, 29201, no later than 2:00 PM, September 22, 2008.

Requests for copies of the anticipated scope of improvements should be directed to SCDOT Program Manager Anthony Fallaw at telephone number (803) 737-9932 or via email at fallawaw@scdot.org.

Appendix D

FHWA Oversight and Stewardship Plan



**STEWARDSHIP AND
OVERSIGHT PLAN**

**THE SOUTH CAROLINA DEPARTMENT OF
TRANSPORTATION**

AND

**THE FEDERAL HIGHWAY ADMINISTRATION
SOUTH CAROLINA DIVISION**

NOVEMBER 2007

Table of Contents

Acronyms

Section 1 – EXECUTION OF PLAN

Section 2 – INTRODUCTION

Section 3 - STEWARDSHIP AND OVERSIGHT OF FEDERAL-AID PROJECTS

3.1 FHWA Responsibilities

3.2 SCDOT Responsibilities

Section 4 – STEWARDSHIP ROLES AND RESPONSIBILITIES FOR SPECIFIC FUNCTIONAL PROGRAM AREAS

Attachment A – Project and Program Action Tables

Attachment B- Policies, Guidelines, Procedures, and Manuals (Approved or Accepted by FHWA for use on Federal-aid projects as of the effective date of this Stewardship and Oversight Plan)

ACRONYMS

3R	Resurfacing, Restoration, and Rehabilitation
AASHTO	American Association of State Highway and Transportation Officials
CEI	Construction Engineering and Inspection
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality
CPI	Continuous Process Improvement
DBE	Disadvantaged Business Enterprise
EA	Environmental Assessment
EEO	Equal Employment Opportunity
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
FIRE	Financial Integrity Review and Evaluation
FMCSA	Federal Motor Carrier Safety Administration
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
HPMS	Highway Performance Monitoring System
HSIP	Highway Safety Improvement Program
HSP	Highway Safety Program
ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	Intelligent Transportation Systems
MBE	Minority Business Enterprise
MPO	Metropolitan Planning Organization
NBIS	National Bridge Inspection Standards
NEPA	National Environmental Policy Act
NHS	National Highway System
NHSD	National Highway System Designation Act of 1995
NHTSA	National Highway Traffic Safety Administration
PE	Preliminary Engineering
PL	Planning Funds
PR/PE	Process Review/Program Evaluation
PS&E	Plans, Specifications, and Estimate
ROD	Record of Decision
ROW	Right-of-Way
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SCDOT	South Carolina Department of Transportation
SOP	Standard Operating Procedure
SPR	State Planning and Research
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
TEA-21	Transportation Equity Act for the 21 st Century
TIP	Transportation Improvement Program
USC	United States Code

Section 1 – EXECUTION OF PLAN

Pursuant to 23 U.S.C. 106 (c), South Carolina Department of Transportation (SCDOT) and Federal Highway Administration (FHWA) agree to follow the procedures set forth in the Stewardship and Oversight Plan, dated November 2007, which is attached to and made part of this agreement, to carry out their respective oversight responsibilities in the delivery of Federal-aid projects. This Stewardship and Oversight Plan supersedes all past plans, including our Operational Agreement dated February 1, 1999 and shall become effective on the date listed below and remain in effect until superseded.

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the Transportation Equity Act for the 21st Century (TEA-21) of 1998, and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005 provided flexibility to the States in how to ensure project actions are carried out in accordance with applicable laws, regulations, and policies. TEA-21, Section 1305 (a) requires that FHWA and the State enter into an agreement showing the extent of the State's assumption of the Transportation Secretary's responsibilities. ISTEA and TEA-21 altered the FHWA role from full project oversight and approval of every project or activity funded with FHWA funds to program oversight and some targeted project level approval. The program and project assumptions made possible under Section 1016 of ISTEA and Section 1305 of TEA-21 require that SCDOT accept these assumed responsibilities and provide greater program accountability due to less federal involvement. With the passage of SAFETEA-LU, the overall program has evolved requiring a more comprehensive Agreement that covers all aspects of the Federal-aid Highway Program and provides a road map to effectively and efficiently execute the Federal-aid program relating to programs/project delivery including financial integrity.

By signing this agreement, SCDOT and FHWA agree to adhere to the provisions and responsibilities included herein. SCDOT and FHWA further agree to carry out their responsibilities in a true spirit of cooperation and partnership. SCDOT agrees that where it assumes FHWA's Title 23 oversight role and approval responsibilities, it is responsible for ensuring that projects are developed and constructed in full compliance with Federal requirements, and that necessary corrective action is taken when actions and approvals are found to be in non-compliance with applicable Federal requirements. FHWA is available for consultation in such matters or may unilaterally become involved in determining corrective action.

SCDOT further understands that nothing contained herein shall relieve it from ultimate accountability for compliance with Federal laws and regulations with respect to the expenditure of Federal-aid highway funds in the State of South Carolina, including those funds passed through to local governments. This agreement does not preclude the FHWA access to and review of Federal-aid projects at any time, and does not replace the provisions of Title 23 United States Code (U.S.C.).

The Stewardship and Oversight Plan is intended to be a living document that can be modified when needed to incorporate additional legislation, additional processes, or other changes to improve program and project delivery. The FHWA South Carolina Division Administrator or the SCDOT State Highway Engineer may initiate amendments to this Stewardship and Oversight Plan should essential modifications become apparent to either party.

Robert Lee
FHWA SC Division Administrator

Tony Chapman
SCDOT State Highway Engineer

Effective Date: November 26, 2007

Section 2 - INTRODUCTION

This Stewardship and Oversight Plan outlines the roles and responsibilities of both FHWA and SCDOT in the accomplishment of oversight and administration of Federal-aid Highway Projects and Programs. The purpose of the Plan is to provide guidance in clarifying actions, preventing misinterpretations, and avoiding delays. The Plan is intended to be a living document that can be modified when needed to incorporate additional legislation, additional processes, or other changes to improve program and project delivery in the State of South Carolina. It serves as a continuing plan of project and program oversight responsibilities for each agency covering the following functional areas:

Project Oversight

- Programming Process and Project Authorization/Agreement Process
- Environmental Process
- Design Monitoring Process
- Right-of-Way (ROW) Process
- Construction Monitoring Process

In cases where project level activity is still an integral part of FHWA's stewardship and oversight efforts, early involvement in project decisions combined with an assessment of the quality of the products produced during the project development process will be the primary focus. SCDOT will follow its Project Development Process to ensure proper communication and coordination occurs between SCDOT and FHWA.

In general, FHWA will use Process Review/Product Evaluation (PR/PE) techniques to assess the capability and capacity of SCDOT for those projects where SCDOT has assumed FHWA's responsibilities. FHWA will also use these techniques to monitor and evaluate SCDOT's fulfillment of the responsibilities outlined in this Plan.

Program Oversight

- Bridge Program
- Civil Rights Program
- Financial Management Program
- Intelligent Transportation System Program
- Maintenance Monitoring Program
- Materials Quality and Acceptance Program
- Pavement Management and Design Program
- Planning Program
- Research, Development, and Technology Transfer Program
- Safety Program

This Plan includes stewardship responsibilities for various programs with identified actions by each agency. It incorporates the concept of mutual service standards that include agreed upon formats and procedures. This Plan also takes into account the FHWA and SCDOT resources and capabilities, and the federal requirements where FHWA has a mandated role in the oversight process. This plan forms

the principal basis for monitoring and evaluating the quality of SCDOT's Federal-aid program, and the continued disbursement of federal funds based upon SCDOT policies, practices, and staffing resources.

FHWA will annually perform risk assessments of various program areas in cooperation with SCDOT for the purpose of prioritizing its program level oversight activities for the coming year. The objective of these risk assessments is to focus the limited resources of the FHWA Division Office on those activities that represent the greatest risk to FHWA in fulfilling its stewardship responsibilities. A portion of the risk assessments will involve an evaluation of SCDOT's internal controls, operating procedures, and staffing. By this process, it is expected that the greatest possible confidence level will be achieved for the resources committed. FHWA reserves the right to make final determinations of Federal program areas for review.

Section 3 – STEWARDSHIP AND OVERSIGHT OF FEDERAL-AID PROJECTS

This section of the Stewardship and Oversight Plan sets forth the respective roles and responsibilities of FHWA and SCDOT in the administration and oversight of Federal-aid Highway projects in the State of South Carolina. As a condition to accepting Federal-aid highway funds, SCDOT agrees to follow all applicable project and program requirements.

3.1 FHWA Responsibilities

The FHWA is ultimately accountable for all Federal-aid highway projects. The FHWA South Carolina Division will fulfill its stewardship role at a project level as follows:

1. **Full Oversight Projects** – While the following describes those projects which will retain FHWA full oversight, the FHWA South Carolina Division has the authority to retain full oversight on any Federal-aid project. On full oversight projects, the FHWA South Carolina Division Office personnel will, at a minimum, review and approve project designs, approve any design exceptions, approve PS&Es, authorize advertisement, concur in contract award, approve changes in contract (change orders, supplemental agreements, time extensions, claims, etc.), conduct project inspections including a final inspection, and prepare a Final Acceptance Report.
 - a. **Interstate System:** The FHWA SC Division will retain full oversight for the following types of Federal-aid projects on the Interstate system:
 - New and Reconstruction projects
 - 3R projects that provide bridge deck repairs, seismic retrofits, or restoration of the pavement (restoration of pavement includes profiling, milling, overlaying, and full-depth patching).

(Note: For new or reconstruction bridge projects, regardless of funding source, that carry traffic over the Interstate Highway, preliminary bridge plans will be submitted to FHWA for approval.)

- b. **NHS System:** The FHWA SC Division will retain full oversight for all Federal-aid projects on the NHS system with an estimated construction cost of \$50 million or greater.
 - c. **ITS Projects:** The FHWA SC Division will retain full oversight for Federal-aid ITS projects that involve Regional ITS architecture, Traffic Management Centers, ITS software development, and Systems Engineering Analysis. Oversight responsibility of routine infrastructure related ITS projects is delegated to SCDOT as stipulated in Section 3.2 of this document.
 - d. **Appalachian Corridor:** The FHWA SC Division will retain full oversight for all projects that are funded through the Appalachian Development Highway Program.
 - e. **Other Projects:** Other projects that may be determined to be full oversight on a case by case basis. For example, those projects using innovative contract procedures such as design/build, construction of unique bridges or structures, earmark-funded projects, or projects of national significance. The decision to classify one of these projects as FHWA full oversight will be made early in the project development process by the Division Office.
2. Transportation Enhancement Program - The FHWA SC Division will concur in eligibility determinations prior to project selection.
 3. CMAQ Program – In non-attainment and maintenance areas where mandatory CMAQ funds are used, FHWA SC Division will concur in eligibility determinations prior to project selection.
 4. Involvement on Other Projects – The FHWA may become involved with any Federal-aid project, including those for which SCDOT has assumed oversight responsibility. FHWA oversight of State delegated projects will be through program level activities, such as Process Review/Program Evaluation (PR/PE). Additionally, SCDOT may request FHWA involvement. The extent of FHWA involvement will be defined by SCDOT’s request.
 5. Title 23 Responsibilities – For projects delegated to SCDOT, as outlined in Section 3.2, SCDOT will assume the responsibility for FHWA in many Title 23 U.S.C. actions. However, the following Title 23 U.S.C. requirements/actions will remain under the authority of FHWA for projects delegated to SCDOT:
 - All Federal responsibilities for planning and programming oversight specified in 23 USC 134 and 135
 - Federal air quality conformity determinations required by the Clean Air Act
 - Obligation of funds
 - Modifications to project authorizations
 - Waivers to Buy America requirements
 - SEP-14 / SEP-15 methods
 - Civil Rights program approvals
 - Changes to or additional access points on the Interstate System (regardless of funding source)
 - Approval to degrade existing controlling design elements on the Interstate system (regardless of funding source)

- Use of Interstate airspace for non-highway related purposes (regardless of funding source)
 - Hardship acquisition and protective purchases
 - Final vouchers
 - Approval of SCDOT standards, specifications, and policies applied to Federal-aid projects
6. Non-Title 23 Responsibility – FHWA will continue to be responsible for the oversight of applicable non-Title 23 requirements. Such oversight will be conducted through a combination of both project and program level activities. Applicable non-Title 23 requirements include, but are not limited to:
- National Environmental Policy Act (NEPA) of 1969
 - Section 4 (f) of the DOT Act of 1966
 - Civil Rights Act of 1964
 - Uniform Relocation Assistance and Real Properties
 - Acquisition Policies Act of 1970
 - Disadvantaged Business Enterprise Program (DBE)
 - Clean Air Act Amendments of 1990
7. Technical Assistance – The FHWA Division Office is prepared to provide technical assistance to SCDOT or local transportation agencies on any aspect of an eligible Title 23 project including intermodal transportation projects. Technical assistance activities will be decided on a case-by-case basis in consultation with SCDOT, other partners and the Division Office. The FHWA Division Office will continue to focus their time and effort on improving processes and procedures, in cooperation with the SCDOT.

The FHWA will manage and provide oversight of South Carolina’s Federal-aid programs in various ways. The methods used will include the following:

- Routine day-to-day program actions and other interaction.
- SCDOT from time to time will ask for FHWA Division participation on SCDOT task forces, teams, implementation committees, reviews, attendance at SCDOT meetings, consultant selection committees, etc.
- PR/PE reviews on program areas as needed and determined in accordance with the Division’s risk assessment process and/or other high importance program areas. PR/PE reviews will be utilized as the primary methods of program oversight. PR/PE reviews comprise the process of comprehensively reviewing and evaluating State and or local agency policies, procedures, practices and controls for the development and implementation of Federal-aid projects and programs.
- The Division Office Financial Integrity Review and Evaluation (FIRE) Program to assess the financial aspects of programs and projects.

3.2 SCDOT Responsibilities:

SCDOT will assume oversight responsibilities for FHWA in Title 23 U.S.C. actions for the following projects:

1. Interstate Projects – (1) all 3R projects excluding bridge deck repairs, seismic retrofits, and restoration of the pavement (restoration of pavement includes profiling, milling, overlaying,

and full-depth patching).. All Interstate projects must comply with all Title 23 U.S.C. and non-Title 23 U.S.C. requirements.

2. Other NHS Projects (not on the Interstate System) – For NHS projects not on the Interstate System, which have an estimated construction cost less than \$50 million, SCDOT assumes oversight responsibility for the right-of-way approval, utility approval, railroad approval and related activities, design approval, design exceptions, plans, specifications, estimates, contract award, and inspection of projects on the NHS. All NHS projects must comply with all Title 23 U.S.C. and non-Title 23 U.S.C. requirements.
3. ITS Projects – SCDOT assumes oversight responsibility for all routine infrastructure related ITS projects (i.e., fiber optic cable, VMS, and camera installations).
4. Non-NHS Projects – SCDOT assumes oversight responsibility for the right-of-way approval, utility approval, railroad approval and related activities, design approval, design exceptions, plans, specifications, estimates, contract award, and inspection of projects not on the NHS. Non-NHS projects are required to be designed, constructed, operated, and maintained in accordance with State law, regulations, directives, safety standards, design standards, and construction standards, in lieu of many Title 23 U.S.C. requirements. Title 23 U.S.C. requirements that are applicable to all Federal-aid projects include, but are not limited to, transportation planning, procurement of professional services, Davis-Bacon wage rates, advertising for bids, award of contracts, use of convict produced materials, Buy America Act provisions and other requirements. All non-NHS projects must also comply with all non-Title 23 U.S.C. requirements.
5. Local Agency Projects – The SCDOT may, pursuant to 23CFR 1.11 and 635.105, delegate certain Federal-aid project authorities to a well-qualified and suitably equipped local public agency. The SCDOT is responsible for ensuring that appropriate procedures and guidelines are in place to facilitate the compliance of local public agency administered Federal-aid projects. FHWA will review and approve these practices and procedures for Federal-aid projects. SCDOT is responsible for ensuring that all Federal-aid projects administered by local agencies comply with all applicable Federal and State requirements. SCDOT is not relieved of this responsibility even though the project may be delegated to the local agency.

Prior to delegating projects to local agencies, the SCDOT will determine and document that the local agency is well qualified and adequately staffed to administer the projects. The SCDOT will review the local agency's ability to administer Federal-aid projects or specific activities on a case-by-case basis, and the extent of delegation will be dependent on their current staffing level and experience, and past performance. A Participation Agreement will be executed between SCDOT and the local agency to outline the responsibilities of both SCDOT and the local agency.

SCDOT will not delegate, to local agencies, approval authority in the following program elements:

- NEPA
- Sole Source
- Use of Force Account
- Design Exceptions

- Changes to Interstate access
- Right of Way certification
- Engineering Plans
- DBE Goals
- Labor compliance
- Final Inspection
- Project Acceptance

For those projects that SCDOT has agreed to assume oversight responsibility, SCDOT will follow all applicable FHWA policies, regulations, Title 23, and non-Title 23 requirements.

Section 4 – STEWARDSHIP ROLES AND RESPONSIBILITIES FOR SPECIFIC FUNCTIONAL PROGRAM AREAS

Attachment A provides a number of tables summarizing SCDOT's and FHWA's responsibilities in carrying out the following program areas:

Environment - For all projects that require an action be taken by FHWA, the South Carolina Division and SCDOT will work together to ensure compliance with NEPA and other applicable laws before an alternative is selected (location/design approval). The level of involvement is commensurate with the level of the environmental impacts or project complexity and will depend on the project environmental documentation class.

Right of Way - All Federal, State, and local public agencies (and others receiving Federal financial assistance for public programs and projects requiring the acquisition of real property) must comply with the policies and provisions set forth in the Uniform Act and its amendments.

Design and Project Authorization - All Federal-aid projects will be designed in accordance with SCDOT's Highway Design Manual (May 2003 including revisions). Federal-aid projects where SCDOT has the delegated authority to act for FHWA in design monitoring will not receive detail design reviews by FHWA but are subject to process reviews and inspections. However, depending on the needed level of environmental documentation, FHWA may participate in the initial project design review. In any case, the design monitoring/review of delegated projects will be conducted by SCDOT as if FHWA were involved.

Ultimately, FHWA is accountable for ensuring that the Federal highway program is delivered consistent with the established requirements. Authorization to proceed with a construction project is accomplished by FHWA after a specific request is received from SCDOT. FHWA Authorization to advertise the physical construction for bids or to proceed with force account construction thereof shall not be given until all of the following conditions have been met in accordance with 23 CFR 635.

- PS&E is complete and ready for advertisement
- ROW available
- Utilities coordinated
- Railroad Agreements obtained
- Permits obtained

- Environmental documents approved and appropriate environmental commitments have been included in the PS&E.

Occasional exceptions may be made to the ROW, utility, railroad, and permit requirements above when meeting one or more of these conditions are not “feasible or practical.” In these cases, the PS&E must adequately account for these exceptions.

For full oversight projects, SCDOT will provide all required documentation to FHWA at least 7 business days prior to the date authorization is requested. All documentation will be provided to FHWA in a single submittal. If it is not feasible or practical to submit any required documentation with the submittal, a status of this documentation will be provided with the submittal. FHWA will review the project documentation to ensure that all project requirements are met. For State delegated projects, SCDOT will ensure that all applicable requirements have been met and that the project was developed in compliance with this agreement and all applicable laws and standards.

The SCDOT and FHWA will utilize electronic signature procedures for requesting and approving Project Authorizations and Project Agreements for each Federal-aid highway and highway planning and research project eligible for Federal-aid funding.

On State delegated projects, submittal of the project authorization to FHWA for electronic signature will serve as SCDOT’s implicit certification that all applicable requirements outlined in this Stewardship and Oversight Plan are satisfied including environmental and STIP approvals.

Construction - In general SCDOT has responsibility for the construction of all Federal-aid projects and for ensuring that such projects receive adequate supervision and inspection to ensure that projects are completed in conformance with approved plans & specifications. FHWA will use various types of inspections to monitor SCDOT’s performance.

Bridge Inspection Program - SCDOT is responsible to manage its bridge inspector certification program and to monitor Local Agency compliance with NBIS requirements. SCDOT also maintains a statewide bridge management system (for state-maintained bridges only), and the statewide bridge inventory. The Division Bridge Engineer will annually review SCDOT’s quality assurance processes and NBIS compliance reviews of SCDOT and selected Counties, Cities or other Local Agencies each year.

Civil Rights Program - The FHWA Division Office is committed to effectively implement and enforce civil rights programs within SCDOT in its design, planning, construction, and management of the multimodal transportation system. SCDOT is obligated to ensure nondiscrimination in all programs and activities, and in the provisions of all services and benefits, as a basis for continued receipt of FHWA funds according to Titles VI and VII of the Civil Rights Act and the codified Federal regulations that outline these acts.

Financial Management - The correctness and propriety of all Federal-aid claims are the primary responsibility of SCDOT whether the primary cost documentation originates within SCDOT or with

some third party. This responsibility is fulfilled by SCDOT maintaining adequate operating policies and procedures and a sound accounting system with proper internal controls together with suitable audit activities. It is FHWA's responsibility to ensure such processes are in place and providing desired results as well as to provide technical assistance and advice in funding and financial areas. FHWA provides assistance and maintenance to SCDOT for the electronic data sharing and electronic signature environment.

The Financial Integrity Review and Evaluation (FIRE) Program (FHWA Order 45601a) requires each FHWA Division office to establish an effective oversight program to ensure that Federal funds are properly managed and effectively used in accordance with Federal policies. Under this program, each Division Office is required to perform financial management process review in response to an annual risk assessment. The purpose of the financial management process review is to assess one key State process to determine that (1) the process complies with Federal requirements, (2) the process complies with generally accepted accounting principles and standards and internal controls, and (3) areas of opportunity are identified for process improvement. The FIRE program includes a review of randomly selected billing transactions provided by Washington Headquarters that verifies the eligibility and accuracy of costs billed to FHWA, verify costs were incurred after FHWA approval, verify costs were charged to the correct project, verify costs were approved by the appropriate State/local official, and verify that SCDOT has sufficient supporting documentation to substantiate the billing.

SCDOT maintains the official records for Federal projects. Supporting documentation will be retained by SCDOT for three years after the final voucher and will include but not be limited to: the final contractor pay estimate, material certification, projects' agreement/modification, statement of overruns and underruns, and final Right of Way certificate in accordance with current requirements. Supporting documentation retained by SCDOT will be available upon request to FHWA.

Maintenance Program - SCDOT is required to maintain, or cause to be maintained any project constructed as part of a Federal-aid system. FHWA is responsible for maintenance monitoring of all Federal-aid projects. FHWA staff will observe highway conditions during their routine travel activities. They may also perform in-depth maintenance reviews, as appropriate. Any significant findings will be discussed with appropriate SCDOT officials. The oversight activities of the State's routine maintenance program will apply to NHS and non-NHS routes. FHWA maintenance monitoring activities will be a continuous process. Maintenance deficiencies observed during official travel will be reported to the appropriate SCDOT personnel. Follow-up activities, if necessary, will be performed by FHWA representatives.

Materials Acceptance Program - The Materials Acceptance Program (MAP) is structured around 23 CFR 637. The overall purpose of the MAP is to ensure the quality of materials and construction in all Federal-aid highway projects on the National Highway System. The MAP is comprised of a quality control program for the contractor/supplier and a quality assurance program for the agency. FHWA will monitor SCDOT's MAP for construction of full federal oversight projects. For state administered projects, SCDOT will monitor the MAP for construction as if FHWA were fully involved except SCDOT does not need to send materials certification to FHWA.

Pavement Management and Design Program - FHWA provides ongoing support in development and implementation of the Pavement Management System (PMS). FHWA participates in

various meetings to ensure that pavement related activities, including new and rehabilitated pavement design and construction, pavement management, research, technology transfer, HPMS, vehicle weight enforcement program, etc., are well coordinated among the functional administrative areas of the division office.

FHWA will review SCDOT's pavement design/rehabilitation procedures, policy and guidelines on an ongoing basis. Additionally, by being a member of the individual task forces, teams, and committees, FHWA will have an ongoing involvement in the development, update and implementation of pavement design procedures.

Planning Program - Transportation planning activities are legislated under SAFETEA – LU Section 6001 for both Metropolitan Planning and Statewide Planning. The most current implementing regulations that apply are found in 23 CFR 450. FHWA South Carolina Division Office and FTA Region Office are jointly responsible for required approval actions such as: Certification of the metropolitan planning process in each Transportation Management Area not less often than once every four years, review and approval of the Unified Planning Work Program (UPWP) and its amendments, review and approval of the State Transportation Improvement Program (STIP) and its amendments and transportation conformity.

FHWA will provide technical expertise and assistance through participation in committees and meetings set up by the MPOs and SCDOT that address data collection and analysis issues.

FHWA will participate in statewide and MPO planning activities as necessary to develop a planning finding as part of the STIP approval. FHWA and SCDOT will work together in the project planning phase to ensure compliance with NEPA and other applicable laws before location approval. Project coordination is facilitated by frequent consultation and meetings.

Research, Development and Technology Transfer Program - The purpose of the program is to implement the provisions of 23 U.S.C. 502 for research, development, technology transfer, and studies undertaken with FHWA planning and research funds. The main requirements under 23 CFR 420 are to create a SPR Work Program, monitor planning and research activities, submit performance and expenditure reports, conduct peer reviews, develop and maintain an FHWA approved research and development manual, and maintain program certification.

The FHWA Division exercises its oversight responsibilities through review of the annual program prior to approval actions, review of individual proposals, and review of annual reports. Division participates in ongoing program activities such as routine technical and policy meetings, participation in peer exchanges, and participation in technology transfer events, etc. Division Office personnel will participate in scheduled workshops to identify research topics that are crucial to South Carolina's transportation program. The FHWA Division will continue to be represented on SCDOT's Research and Development Executive Committee. This committee makes final recommendation of research projects for approval by the State Highway Engineer and provides overall program guidance.

Safety Program - SCDOT will manage, enhance, and evaluate an overall Highway Safety Improvement Program (HSIP) in accordance with 23 CFR, Section 924, with quality improvement reviews by the Division on a three year cycle, or as otherwise needed.

SCDOT will annually submit required reports on the effectiveness of the HSIP program, including the HSIP report and the highway-railway crossing report, and the 5% report, on or before August 31st of each year.

SCDOT and SCDPS, along with FHWA and NHTSA, will participate in a traffic records coordinating committee (TRCC). The State of South Carolina will work toward a comprehensive, statewide data system that includes all public roads by 2009, in accordance with FHWA's phase-in schedule. FHWA will work in partnership with NHTSA to ensure Federal requirements are met, and will adopt a review cycle through the TRCC and actively participate in the reviews.

SCDOT will coordinate with SCDPS to ensure timely submission of "split letters" when safety transfer funds are involved, designating the percent of funds applied to NHTSA and FHWA safety programs. In addition, the State will provide appropriate certifications to FHWA. FHWA will be responsible for administering these funds, for reviewing and submitting the certifications, and for periodic program reviews of the funds (possibly in conjunction with the HSIP reviews).

FHWA will review the use of the safety planning factor as part of its HSIP reviews and MPO certification process.

SCDOT and FHWA will jointly perform process improvement reviews of other safety program elements, as needed, such as Safe Routes to School, High Risk Rural Roads, design standards, MUTCD compliance, work zones, etc.

Within the South Carolina's SHSP, safety emphasis areas will be established based on safety data. The State will develop action plans and strategies for each emphasis area to identify and implement projects that will significantly reduce the number of fatal and serious injury highway crashes. The FHWA may provide technical assistance to the State, as requested.