FACILITIES DEVELOPMENT MANUAL



# TABLE OF CONTENTS

### Chapter 19: Plans, Specifications, and Estimates

### Section 19-1 Introduction

<u>19-1-1</u>.....General

- <u>1.1</u>.....Originator
- <u>1.2</u>.....Purpose
- 1.3.....Composition
- <u>1.4</u>.....Timing
- 1.5.....Processing
- Attachment 1.1.....Abbreviations in FDM Chapter 19
- Attachment 1.2.....Central Office PS&E Contacts
- Attachment 1.3.....Utility Exception Example
- Attachment 1.4.....Real Estate Exception Example
- Attachment 1.5.....Proposal Preparation Process Schedule
- Attachment 1.6.....Central Office Proposal Preparation Process
- <u>19-1-3</u>.....Project Letting Process (PLP)
  - <u>3.1</u>.....Guidelines and Definitions
  - 3.2.....The Purpose
  - 3.3.....The Process
  - Attachment 3.1.....Project Letting Process for Fiscal Year "X"
  - Attachment 3.2.....Schedule for Establishing Annual Letting Implementation Plan (LIP)
  - Attachment 3.3.....Sample Letting Restriction List
  - Attachment 3.4.....Quarterly and Cumulative Monthly Goals
- <u>19-1-5</u>.....Proprietary Products
  - <u>5.1</u>.....General
  - 5.2.....Justification of Proprietary Applications
  - 5.3.....Proprietary Product Documentation
  - 5.4.....Publication of Proprietary Product Lists
  - 5.5.....Approved Product Lists
  - 5.6.....References

#### Attachment 5.1.....Example DT1584 Patented or Proprietary Product Justification

- <u>19-1-7</u>.....Use of Publicly Owned Equipment on Let Contracts
- <u>19-1-9</u>.....State Owned, Furnished and Designated Materials for Let Contracts
  - 9.1.....Applicability
  - <u>9.2</u>.....Guidance
  - 9.3.....Mandatory Disposal Sites
- <u>19-1-11</u>.....Expedited Lettings
  - 11.1.....Selecting an Appropriate Contract Type
  - 11.2.....Expedited Letting Documents
  - 11.3.....Final PS&E Review Process
  - <u>11.4</u>.....Timing
  - Attachment 11.1.....Selecting a Contract Type

# Section 19-5 Estimates

- <u>19-5-1</u>.....General
- 19-5-3.....Bid Item Guidance
  - 3.1.....Updated/Newer Bid Items
  - 3.2.....Usage Guidance for Other Items
  - 3.3.....Quantities

Attachment 3.1.....Quantity Reference Table

Attachment 3.2.....FIIPS Quantities Update Form

<u>19-5-5</u>.....Construction Estimates

5.1.....Confidential Construction Estimates

5.2.....Estimate Accuracy Performance Measure

5.3.....Estimating User Group

<u>5.4</u>.....Estimate Types and Components

5.5.....Tools and Resources

5.6.....Construction Estimate Development

5.7.....Contract Document Bid Impacts

Attachment 5.1.....Recommended Letting Months by Improvement Strategy

<u>19-5-6</u>.....Construction Estimate Documentation Report

6.1.....Estimate Documentation Information

6.2.....Executive Summary

6.3.....Estimating Tool Parameters

6.4.....Similar Projects or Proposals

6.5.....Project Characteristics

6.6.....Item Level Documentation

6.7.....Attachments

<u>19-5-7</u>.....Construction Estimate Review

7.1.....Independent Review

7.2.....Region Program Controls Review

7.3.....Central Office Review

<u>19-5-10</u>.....Create Estimate and Proposal

19-5-20 ......FHWA Project Authorization Process (Delegated Projects)

20.1.....Background Information

20.2.....Corrective Actions for the Cost Estimate Data

#### Section 19-10 PS&E Transmittal and Composition

<u>19-10-1</u> ...... Transmittal of Let Project PS&Es

<u>1.1</u>.....Accessing eSubmit

<u>19-10-5</u>.....Final Review

5.1.....Approval of Plans and Grades

5.2.....Cost Effectiveness Finding

5.3.....Hazardous Materials

5.4.....Right of Way and Encroachments

5.5.....Permits and Environmental Documents

5.6.....Utilities and Railroads

5.7....Justifications

5.8.....Proprietary Products

5.9.....Constructability Review

5.10.....Bureau Project Review

5.11.....PS&E Pre-Submittal Review

Attachment 5.1.....BPD - Quality Review Checklist

Attachment 5.2.....BOS – Quality Review Checklist

Attachment 5.3.....BHM - Quality Review Checklist

Attachment 5.4.....BTS Environmental Section - Quality Review Checklist

Attachment 5.5.....BTLRRH - Quality Review Checklist

Attachment 5.6.....BTS Acquisition & Services Section - Quality Review Checklist

<u>19-10-10</u> ..... Transmittal of Let Project PS&E Exhibits

10.1..... Submitting PSE Exhibits with eSubmit

10.2..... Naming Exhibits

10.3..... Submittal

10.4..... Submitting Structure Plans

10.5..... Error Messages

<u>19-10-15</u> .....Plan Letter

<u>15.1</u>.....Plan Letter Contents

<u>19-10-20</u> ......Governors Approval Form (DT25)

Attachment 20.1.....Sample of Form DT25, Governor's Approval Form

19-10-25 .....Sample Proposal

25.1.....Completing Form DT1502

Attachment 25.1.....Sample of Completed DT1502 Form Highway Work Proposal

<u>19-10-30</u> .....Contract Time for Completion (DT1923)

<u>30.1</u>.....General

30.2.....Contract Work Type

30.3.....Work Time

30.4.....Factors Influencing Contract Time

Attachment 30.1.....Sample of Form DT1923, Contract Time for Completion

Attachment 30.2.....Percentage Factors for Probable Working Days

<u>19-10-35</u> .....Certificate of Right of Way (DT1899)

35.1.....Right-of-Way Clearance

Attachment 35.1.....Certificate of Right of Way

<u>19-10-40</u> .....Utilities Status Report (DT1080)

40.1.....Utility Clearance

<u>19-10-42</u> .....Certification of Railroad Coordination with Highway Construction

- <u>19-10-43</u> .....Digital Data Exchange
  - 43.1.....General

43.2.....Contractor Data Packet Submittal

43.3.....Consultant Project Data Submittal

43.4.....File Formats

43.5.....Categories of Digital Data Exchange

43.6.....Guidelines on Data Requirements

Attachment 43.1.....Civil 3D Specific Design Deliverable Requirements

<u>19-10-45</u> .....Changes to Consultant Plans

45.1.....Purpose

45.2.....Statement of Problem

45.3.....Project Development

45.4.....Region Activities

45.5.....Bureau of Structures Activities

- 45.6.....Bureau of Project Development
- 45.7.....Post Letting Activities

<u>19-10-50</u> .....Revisions of PS&E and Resubmittal of Rejected Proposals

50.1.....Revisions of PS&E

50.2.....Resubmittal of Rejected Proposals

### Section 19-15 Special Provisions

19-15-1.....Introduction

19-15-2.....Alternative Contracting

2.1....Introduction

2.2.....Cost Plus Time Bidding

2.3....Lane Rental

2.4.....Design/Build Contracting

- 2.5.....Interim Liquidated Damages
- 2.6.....Enhanced Liquidated Damages
- 2.7.....Incentives/Disincentives
- 2.8.....Flexible Notice-to-Proceed
- 2.9....."Low Bid" Design/Build

Attachment 2.1.....Cost Plus Time (A + B) Bidding

Attachment 2.2.....Cost Plus Time (A + B1 + B2 + B3) Bidding

Attachment 2.3.....Cost Plus Time (A + Lane Rental) Bidding

Attachment 2.4.....Cost Plus Time (Accelerated Bridge Construction) Bidding

Attachment 2.5.....Lane Rental Fee Assessment (Example for Simple Night Work)

Attachment 2.6.....Lane Rental Fee Assessment (Example for Multiple Closure Situations)

Attachment 2.7.....Enhanced Liquidated Damages

Attachment 2.8.....Incentives/Disincentives for Interim Completion of Work

- Attachment 2.9.....Flexible Notice-to-Proceed
- 19-15-3.....Guarantees, Warranties, Establishment Periods, and Proving Periods
- 19-15-5.....General

5.1.....Sample Special Provision

<u>19-15-10</u>.....Scope of Work

10.1.....Sample Special Provision

19-15-11 .....Consideration of Proposals 11.1.....Sample Special Provisions 19-15-12.....Proposal Guaranty 12.1.....Sample Special Provision 19-15-14.....Coordination and Prosecution and Progress 14.1.....Factors to Consider 19-15-15.....Prosecution and Progress 15.1.....Other Considerations Attachment 15.1.....Choosing the Appropriate Prosecution & Progress STSP 19-15-20.....Traffic 20.1.....Sample Special Provision 19-15-23.....Holiday and Weekend Work Restrictions 23.1.....Independence Day 23.2.....Memorial and Labor Days 23.3.....Deer Hunting Season 23.4.....Non-Holiday Weekends 23.5.....Other Monday Holidays 23.6.....Thanksgiving 23.7.....Christmas and New Years 23.8.....Easter 23.9.....Sample Special Provision <u>19-15-25</u>.....Utilities 25.1.....Sample Special Provisions 19-15-26.....Other Contracts and Work by Others 19-15-35.....Railroad Special Provisions 35.1.....Railroad Contact Information Attachment 35.1.....Railroad Special Provisions Selection 19-15-45.....Hauling Restrictions Attachment 45.1.....Sample Special Provision 19-15-55.....Environmental Protection 55.1.....Bridge Construction in Streams During Fish Spawning 55.2.....Migratory Bird Nests on Structures 55.3.....Other Environmental Protection STSPs 19-15-60.....Erosion Control 60.1.....Sample Special Provisions 19-15-75.....Specification Modifications 75.1.....Sample Special Provisions 19-15-80.....Special Provision Bid Items SPV 80.1.....Assigning Numbers to SPV Items 80.2.....Writing Special Provision Articles for Non-Standard Bid Items 80.3.....Using Numbers in Technical Documents 80.4.....Using Units in Technical Documents Attachment 80.1.....Nonstandard Bid Item Sample 19-15-85.....Standardized Special Provisions Bid Items (STSP) ###.####.S 85.1.....Modifying an Existing STSP 85.2.....STSP Folder Updates 85.3.....The Special Provisions Website 19-15-90.....Additional Special Provisions 90.1.....Coordination with the Region Labor Compliance Coordinator 90.2.....ASP Descriptions 90.3.....Buy American Provision

# Section 19-21 Quality Management Program

- <u>19-21-1</u>.....Overview
  - <u>1.1</u>.....General QMP Information
- <u>19-21-2</u>.....Use of Standard Specification and Incentives for QMPs
  - 2.1.....Standard Specification QMP Provisions
  - 2.2.....Incentive Items for Standard Specification QMPs
- 19-21-5.....Use of Standard Special Provision and Incentive Item QMPs
  - 5.1.....Standard Special Provisions
  - 5.2.....Standard Special Provisions QMPs

# Section 19-22 Post-Advertisement Activities

<u>19-22-1</u>.....Addenda

- 1.1....Introduction
- <u>1.2</u>.....Determining the Need for an Addendum
- 1.3.....Completing the Addendum Development Form
- <u>1.4</u>.....Preparing the Addendum
- 1.5.....Final Coordination with BPD
- 1.6.....BPD Processing
- 1.7.....Measuring Addenda
- Attachment 1.1.....Addenda Process Flow Chart
- Attachment 1.2.....Addenda Development Form (blank)
- Attachment 1.3.....Sample Completed Addenda Development Form
- Attachment 1.4.....Addendum Form (Blank)
- Attachment 1.5.....Sample Completed Addendum
- 19-22-5......Post Advertisement Questions and Answer Process
  - 5.1....Introduction
  - 5.2.....Process

### Section 19-25 Local Force Account Agreements

<u>19-25-1</u>.....General

<u>19-25-5</u>.....Local Force Account (LFA) Agreements

- 5.1.....Agreement Contents
- 5.2.....PS&E Composition
- 5.3.....PS&E Submittal
- 5.4.....PS&E Approval
- Attachment 5.1.....DT2056 Agreement for Construction, Local Force Account
- Attachment 5.2.....Additional Provisions for Federal-Aid Force Accounts
- Attachment 5.3.....Item Unit Cost Analysis
- Attachment 5.4.....Project Unit Cost Analysis
- Attachment 5.5......PS& E Exhibit Distribution Chart for Local LFA Contracts
- <u>19-25-10</u>.....Special Provisions
  - 10.1.....General Requirements
  - <u>Attachment 10.1</u>.....Sample Special Provision for a Local Force Account Agreement <u>Attachment 10.2</u>.....Sample Special Provision for a Local Force Account Agreement <u>Attachment 10.3</u>.....Required Non-discrimination Provision for Federal-Aid Contracts

## Section 19-30 Razing and Removal Contracts

- <u>19-30-1</u>.....General
  - <u>1.1</u>.....PS&E Submittal
  - 1.2.....BPD Processing
  - Attachment 1.1.....Plan Letter for Razing and Removal
  - Attachment 1.2.....Engineer's Estimate
  - Attachment 1.3.....Governor's Approval Form DT25 for Razing and Removal
  - Attachment 1.4.....Highway Work Proposal DT1502 for Razing and Removal
  - Attachment 1.5.....Special Provisions for Razing and Removal

Attachment 1.6.....Exhibits

### Attachment 1.7.....Bid Form and Instructions for Razing and Removal

## Section 19-35 TEA and EDA Funded Projects

## <u>19-35-1</u>.....General

<u>1.1</u>.....TEA Projects -State Administered

- 1.2.....TEA Projects -Locally Administered
- 1.3.....EDA Projects -State Administered
- <u>1.4</u>.....Special Actions by the Office of Construction
- <u>1.5</u>.....Actions Taken by the Consultant or Local Agency.
- 1.6.....EDA Projects -Locally Administered

# Section 19-40 Review

Exhibit 1.1.....PS&E Pre-Submittal Review Guide

Exhibit 1.2.....Standard Detail Drawings (Examiner's List)