

# Specification Manual



April, 2006

**TABLE OF CONTENTS**

**Chapter 1 - Introduction**

Purpose ..... 1  
Specifications Unit ..... 1  
Uniformity ..... 1  
Warranties ..... 2  
Proprietary Items ..... 2  
Buy America ..... 2  
Liquidated Damages ..... 2  
Bid Items/Pay Items ..... 2  
Forms, Manuals, and Guides ..... 3

**Chapter 2 - Specification Organization And Format**

Organization of Specifications ..... 4  
    Ten Division Format ..... 4  
Format and Style ..... 5  
    Grammar (Indicative Mood/Imperative Mood) ..... 5  
    Punctuation ..... 6  
    Capitalization of Terms ..... 6

**Chapter 3 - Special Provisions**

Special Provision Writing Considerations ..... 7  
    Project Special Provision Writing Do's and Don'ts ..... 7  
Project Special Provisions Assembly ..... 8  
Preparing Project Special Provisions ..... 8  
    Department of Justice Review ..... 9  
    Project Special Provisions Prepared by Others ..... 10  
    Consistency ..... 10  
Advance Special Provisions ..... 10  
Final Project Special Provisions ..... 10  
    Incorporation of Information and Changes ..... 11  
    Boiler Plate Updates ..... 11  
    Class of Work ..... 11  
    Final Review and Proof ..... 11  
    Final Checks ..... 11

**Chapter 4 - Estimates And Costs**

General ..... 12  
Costs ..... 12  
Segregated Quantities ..... 12  
Using Trns.port Estimator ..... 12  
    Trns.port Estimator Permissions ..... 12  
    Project Federal Aid Number ..... 12  
Anticipated Items ..... 13  
Construction Engineering Budget ..... 13  
Final PS&E Cost Estimate ..... 13

**Chapter 5 - Plans**

General..... 14  
Advance Project Plans ..... 14  
    Title Sheet and Accompanying Drawing Number Sheet(s) ..... 14  
    Plan Sheets ..... 14  
Final Project Plans ..... 14

**Chapter 6 - PS&E Submittal**

General..... 15

**Chapter 7 - Addenda**

General..... 16  
    During Advertisement Period ..... 16  
    Bid Opening Day..... 16

**Chapter 8 - Archive**

General..... 17  
Preparing Job Files for Archive ..... 17  
Archiving..... 17

**Chapter 9 - Checklist**

General..... 18  
Initial Preparation ..... 18  
Advance ..... 18  
Final..... 19

**Chapter 10 - WORD Writing Requirements**

General..... 20  
Fonts and Margins..... 20  
Do's, Don'ts, and Other Considerations ..... 21  
Table of Contents Fields ..... 21  
    Creating and Updating Table of Contents ..... 22  
Headers and Footers..... 22  
Page Break/Section Break ..... 22

## CHAPTER 1 - INTRODUCTION

### 1.1 Purpose

This manual serves as a source of information for writing construction contract specifications. It discusses preparation of contract plans, project special provisions, and estimates (PS&E).

Highway construction specifications are a standard set of procedures used to execute and manage a legal binding contract. This includes describing scope of work, type of materials, equipment requirements, construction methods, and measurement and payment methods of work related items. They include:

- **Standard Specifications** - [Standard specifications](#) are specifications that are applicable to all highway construction projects within the State. The current ODOT publication is the "2002 Oregon Standard Specifications for Construction".
- **Supplemental Specifications** - [Supplemental specifications](#) are specifications that are not included in the standard specifications or specifications rewritten after the publication of the standard specifications. The current ODOT publication is the "January 2006 Supplemental Oregon Standard Specifications for Construction".
- **Special Provisions** - [Special provisions](#) are specifications that are revisions to the standard specifications and supplemental specifications. They contain special instructions, provisions, and requirements specific to an individual project. All projects require special provisions.

### 1.2 Specifications Unit

The Specifications Unit is part of the Specifications and Office of Pre-Letting Section. Its objectives are to:

- Ensure that the standard specifications, supplemental specifications, and special provisions comply with ODOT's standards and policies, and FHWA and Legislative requirements
- Develop, maintain, and publish new and revised standard specifications, supplemental specifications, special provisions, and unique specifications
- Provide technical support
- Provide training

### 1.3 Uniformity

The Specifications Unit is tasked to maintain statewide uniformity in standard specifications and special provisions. Differences in specifications from Region to Region or project to project leads to inconsistent enforcement, misinterpretation, higher prices, and contractor claims. It is important to use the standard specifications and special provisions as provided.

## 1.4 Warranties

Warranties are discussed in [supplemental specification subsection 00170.85\(b\)](#). If warranties, other than those already captured in the standard specifications, are to be included in any projects, approvals must first be obtained from the Department of Justice (DOJ) and Federal Highway Administration (FHWA). See [Code of Federal Regulations \(23 CFR 635.413\)](#) for additional information. This criteria applies to both State and Federal funded projects.

## 1.5 Proprietary Items

Proprietary items are not to be specified in projects unless the [Code of Federal Regulations \(23 CFR 635.411\)](#) are met. Also see [FHWA's Construction Program Guide Proprietary Products](#) web site for additional information. This applies to all State and Federal Funded projects.

## 1.6 Buy America

Buy America provisions apply to all Federal Funded projects. See [Code of Federal Regulations \(23 CFR 635.410\)](#), [FHWA Buy America](#) and [FHWA Quick Facts](#) web sites for additional information. FHWA has a very strict interpretation of Buy America requirements.

## 1.7 Liquidated Damages

Except for liquidated damages discussed in [supplemental specifications subsection 00185.85](#), [special provisions subsection 00185.85\(b\)](#), and [special provisions subsection 00220.40\(f\)](#), liquidated damages are not to be assessed.

## 1.8 Bid Items/Pay Items

The standard specifications and special provisions establish the bid items/pay items for which work will be paid.

Except for the following items identified in the specifications as incidental, all work shown on the plans require bid items.

Only include the following items as incidental when there is little work associated with the type of work.

- 00210.91 - Mobilization
- 00280.90 - Erosion and Sediment Control
- 00310.93 - Removal of Structures and Obstructions
- 00320.91 - Clearing and Grubbing
- 00340.92 - Watering
- 00370.91 - Finishing Roadbeds and Slopes
- 00405.92 - Trench Excavation, Bedding and Backfill
- 00445.99 - Sanitary, Storm, Culvert, Siphon, and Irrigation Pipe
- 00495.92 - Trench Resurfacing

## Specification Manual

00610.91 - Reconditioning Existing Roadway  
00706.94 - Emulsified Asphalt Slurry Seal Surfacing  
00941.80/.90 - Sign Covers  
01040.00 - Planting

Do not make existing measurable work items incidental to other items. Pay for them under the individual established pay items.

Avoid adding Lump Sum items.

Incidental and Lump Sum items are sometimes difficult to bid and difficult to establish costs during construction when changes occur.

Use bid items from the established [Standard Bid Item List](#). Use of bid items that are not on the established list will require written special provisions including materials, construction, measurement, and payment.

### **1.9 Forms, Manuals, and Guides**

Specifications change and are continually updated so always begin a new project with a new set of forms and documents.

These various forms, manuals, and guides are available for download from the [Specifications Web](#) site.

## CHAPTER 2 - SPECIFICATION/SPECIAL PROVISION ORGANIZATION AND FORMAT

### 2.1 Organization of Specifications

Standard specifications and special provisions are organized into numbered Parts, Sections, and Subsections. Part 00100 is the General Requirements also considered the Legal Requirements that discuss contracting procedures, general and legal responsibilities, prosecution of the work, and measurement and payment for the work. Parts 00200 and beyond are the Technical Requirements that discuss material requirements and construction details.

#### 2.1.1 Ten Division Format

Each Part is divided into Sections and Subsections. The Subsections are organized under up to 10 divisions. Usually not all Subsection divisions are used in each Section. The most common divisions that are used and required in all project specification Parts 00200 through 01100 are "Description", "Materials", "Construction", "Measurement", and "Payment". Here is a brief description of each division:

- **Description (.01 - .09)** - The specifications under this heading include a short statement of the work to be done, a general statement concerning compliance with plans and specifications, and abbreviations, definitions, and any other general statements. When necessary or desirable for clarity, these subsections should establish the relationship of the work items to other work items or other phases of the construction.
- **Materials (.10 - .19)** - The specifications under this heading contain cross references to the material specifications contained in Materials, Part 02000 and Part 03000. Reference should be made to applicable ODOT, AASHTO, ASTM, or other nationally recognized specifications. When reference specifications are unavailable or are undesirable, Part 02000 and Part 03000 should designate the materials to be used and establish the requirements. Detailed specifications of the properties of each material and the methods of testing should be outlined. When reference is made to an out-of-print specification, the entire specification should be included in the contract documents or we should be prepared to supply the bidders with copies of it.
- **Equipment (.20 - .29)** - The specifications under this heading identify the minimum equipment requirements to accomplish the work. Specific requirements pertaining to equipment should be held to a minimum in order to encourage contractors to use new and improved equipment.
- **Labor (.30 - .39)** - The specifications under this heading discuss any unique labor requirements or qualifications required for the project.
- **Construction (.40 - .49)** - The specifications under this heading detail the sequence of construction operations and the end product to be obtained. While specification requirements should be sufficient to insure satisfactory completion of the work, specific requirements pertaining to construction methods should be held to a

minimum in order to encourage contractors to apply new and advanced ideas in construction methods.

- **Temporary (.50 - .59)** - The specifications under this heading discuss any unique temporary measures to be done in order to accomplish the work. It is not meant to supplement work zone traffic control measures.
- **Maintenance (.60 - .69)** - The specifications under this heading discuss any maintenance, repair or avoidance measures the contractor must follow.
- **Finishing and Cleaning Up (.70 - .79)** - The specifications under this heading discuss site specific conditions, restorations, or any other related information the contractor must accomplish before the work is accepted.
- **Measurement (.80 - .89)** - The specifications under this heading discuss the components of the completed work item that are to be measured for payment; the units of measurement, whether measured in original position, in transporting vehicles, or in the completed work. Adjustment for temperature and any other requirements needed to establish a definite measured unit should also be designated.
- **Payment (.90 - .99)** - The specifications under this heading discuss the units for which payment will be made, identify the bid item for work will be paid for, and define very explicitly the scope of the work covered by the payment.

## 2.2 Format and Style

Format and style generally conform to the conventions used in the standard specifications. A combination of Imperative Mood and Indicative Mood writing is used as well as the outside method of punctuation and capitalization of certain terms.

### 2.2.1 Grammar (Indicative Mood/Imperative Mood)

Part 00100 is written in the indicative grammatical mood in which the subject is expressed. For example: "*The Contractor shall perform all work under the Contract.*"

Parts 00200 through 03000 are generally written in the imperative grammatical mood in which the subject is implied. In imperative grammatical mood, the verb, which clearly defines the action, becomes the first word in the sentence and other implied words are eliminated. Throughout Parts 00200 through 03000 the following apply:

- The subject, "the Contractor", is implied.
- "Shall" refers to action required of the Contractor, and is implied.
- "Will" refers to decisions or actions of the Agency and/or the Engineer.



- The following words, or words of equivalent meaning, refer to the actions of the Agency and/or the Engineer, unless otherwise stated: "directed", "established", "permitted", "ordered", "designated", "prescribed", "required", "determined".
- The words "approved", "acceptable", "authorized", "satisfactory", "suitable", "considered", and "rejected", "denied", "disapproved", or words of equivalent meaning, mean by or to the Agency and/or the Engineer, subject in each case to Section 00150 of the standard specifications.
- The words "as shown", "shown", "as indicated", or "indicated" mean "as indicated on the Plans".

A traditional sentence would say: "*The Contractor shall install wick drains as shown on the plans or as directed by the Engineer.*" In the imperative mood, the sentence would say: "*Install wick drains as shown or directed.*"

### **2.2.2 Punctuation**

The "outside method" of punctuation is used for placement of the comma and the period with respect to quotation marks. Only punctuation that is part of the quoted matter is placed within quotation marks.

An example of "outside method", where the period is outside the quotation marks, is: "*The accepted quantities of wearing surface drains will be paid for at the Contract unit price per each for the item "Wearing Surface Drains".*"

### **2.2.3 Capitalization of Terms**

Defined terms, identified in supplemental specifications subsection [00110.20](#) are always capitalized in Part 00100. The defined terms are generally not capitalized in Part 00200 through 03000.

For additional information, see supplemental specifications subsections [00110.00](#) and [00110.05](#).

## CHAPTER 3 - SPECIAL PROVISIONS

### 3.1 Special Provision Writing Considerations

A good specification is clear, concise and easily understood. Simple words and short sentences are used. Duplication is avoided. Considerations when preparing special provisions include:

- Does the special provision provide clear, enforceable requirements that will be easily interpreted the same way by both the Engineer and the Contractor? If more than one meaning can be interpreted, the Contractor will make an interpretation that is most favorable to him.
- Is the special provision necessary? If the subject is already covered in the standard specifications, do not repeat it in the special provisions.
- Special provisions should include only what is needed to obtain the desired end result.
- Special provisions should provide specific directions, not suggestions, explanations, or reasons.
- If a specification is silent on a point, the Contractor cannot be expected to meet respective requirement without extra compensation.

#### 3.1.1 Project Special Provision Writing Do's and Don'ts

- Do follow the requirements of Chapter 2 and Chapter 10
  - Do write definite, clear, and complete requirements
  - Do be sure that all requirements are technically correct
  - Do make requirements fair to the Contractor
  - Do use simple words
  - Do use short sentences
  - Do use bullets to list items
  - Do define technical words
  - Do know what the standard specifications and special provisions say
  - Do include special provisions for all project work
  - Do include pay items for all project work
- 
- Do not repeat requirements
  - Do not create conflicting requirements
  - Do not include suggestions
  - Do not include reasons or explanations
  - Do not repeat standard specifications in the special provisions
  - Do not write special provisions that make unnecessary changes to the standard specifications

### 3.2 Project Special Provisions Assembly

Project special provisions are created by assembling the appropriate "[Boiler Plates](#)".

Boiler plates are text elements meant to be used over and over. ODOT has created boiler plates of each legal and technical Section of the standard specifications book. When the boiler plates are assembled into a single document, the document becomes and is referred to as the "Project Special Provisions".

Boiler plates are periodically updated, already formatted, and set up for easy assembly. They have also received the Department of Justice and Specification Engineer's approval.

Always begin a new project with new boiler plates when creating the project special provisions.

To create project special provisions, complete the "[Bid Booklet/Special Provisions Document Assembly](#)" form (SPLIST). This completed form is used to assemble the project special provisions. Usually prepare this form after the Bid Item list is finished because this will provide a good basis for the special provisions needed for the project.

A boiler plate is required for each work item that is to be done under the project, even if the work item is incidental.

### 3.3 Preparing Project Special Provisions

Keep a record of all modifications that are made to the boiler plates so after assembling the project special provisions but before editing them, turn on WORD's "Track Changes" feature.

Always follow the instructions (orange italic) when preparing the project special provisions. As a rule, if no instructions are included for a particular subsection, that subsection is always used. Be sure to remove all instructions when editing the project special provisions. Also be sure to follow the specification organization, format, and writing requirements of Chapter 2 and Chapter 10.

Generally, there are more specifications on the boiler plates than what will be needed for the specific project. Delete all the specifications from these boiler plates that do not apply to the project and add specifications that do apply to the project. A number of blanks must be filled in. Most of the blanks can be filled in immediately, other blanks require input from other disciplines. Instructions on the boiler plates usually indicate the conditions under which the various subsections are to be used.

Additional instructions for some of the Sections are:

- **Section Lead-In Paragraph** - Each section has a lead-in paragraph that states "Comply with Section XXXXX of the Standard Specifications supplemented and/or modified as follows:". If no modifications are made in a particular section, modify this lead-in paragraph to read "Comply with Section XXXXX of the Standard Specifications."
- **Completion Time** - The completion time appears in three separate places in the bidding documents. They are the bid booklet Description of Work page, the special provision

Description of Work page, and special provision 00180.50(h). The completion time must be exactly the same in all three places.

- **DBE and OJT** - The DBE and OJT numbers are obtained from the Office of Civil Rights. See the [User's Guide to PS&E Delivery](#) for additional information.
- **TERO** - Federal funded projects that are on or within 60 miles of the Umatilla Indian Reservation require TERO specifications. Contact the Region 5 Civil Rights office for TERO requirements, employment goals, and compliance fees.
- **00120 Bidding Requirements and Procedures** - The plan information listed in 00120.05 must match exactly as written on the plan title sheet. This legally binds the documents together into a complete bidding package.
- **00150 Control of Work** - Utilities are listed in 00150.50. This information is obtained from the Region Utility report and is provided by the Region Utility Liaison.
- **00170 Legal Relations and Responsibilities** - If a project includes railroads, railroad specifications need to be included in 00170.01(e) and SP\_BNSF\_RR, SP\_UP\_RR, or SP\_OTHER\_RR needs to be included near the front of the special provisions book. Information to be included in these specifications is obtained from ODOT's Railroad Engineer Liaison. Send a copy to the ODOT Railroad Engineer Liaison their editing.

### 3.3.1 Department of Justice Review

Oregon State Statute requires that the Department of Justice (DOJ) review all State contracts for legal compliance. Since specifications and special provisions become part of a binding project construction contract, they must adhere to this Statute requirement. Fortunately, because of the volume of projects, ODOT has been given an exemption provided the following requirements are strictly adhered to:

- a. "Other than the fill-in-the-blank portions of the Part 00100 series of Specifications, ODOT and its contractors shall not add to, delete from or otherwise modify Part 00100 preprinted Specifications relating to general legal requirements without first obtaining DOJ approval"
- b. "...ODOT shall not add any general legal requirements to the Part 00200 and forward series of Specifications (including warranties, surety bonds, liquidated damages, penalties, bonuses, incentives, disincentives or general legal requirements of the type addressed in the Part 00100 series of Specifications) without first obtaining DOJ Approval."

ALL needed DOJ communication must be done through the staff of the Office of Pre-Letting Section.

### **3.3.2 Project Special Provisions Prepared by Others**

Other staff and designers from Temporary Traffic Control, Erosion Control, Environmental, Bridge, and Traffic may provide boiler plate special provisions and estimates to be included in the project. Before incorporating them into the project special provisions, carefully review them. You may have to do some editing to be sure the specifications conform to ODOT's writing and formatting style as well as to be sure they do not conflict with other specifications.

### **3.3.3 Consistency**

Be sure that all the requirements of the various portions of the plans and specifications are in agreement with each other. In other words, all work items shown on the plans require corresponding specifications and bid items. Non-bid item work, (incidental work), requires specifications. All bid items require corresponding specifications.

Be sure that the specifications for the various work items are equally strict or loose. For example; if a small project calls for commercial quality aggregate base, it would probably be inappropriate to call for a more strict asphalt concrete pavement.

## **3.4 Advance Project Special Provisions**

Usually project specific special provisions are compiled, edited, and distributed for review and input by others. This is considered the "Advance Plans and Specs". Each Region has their own criteria on preparing and advancing projects. Contact the appropriate Region Project Leader for additional information.

Suggested items to consider when preparing the Advance copies include:

- Use paper copies or publish electronic copies for review
- Have all or as many required fill in the blank fields filled in before advancing the project
- Include the project Bid Schedule at the end of the special provisions

## **3.5 Final Project Special Provisions**

Final project special provisions are prepared after the "Advance" review. The Final process includes the following:

- Incorporating all remaining information that was not done at the advance stage
- Incorporating appropriate changes that were requested by those who reviewed them
- Incorporate Final Boiler Plate updates
- Prepare and incorporate the "Class of Work" into the project special provisions
- Final review and proofread
- Final checks

Each Region, however, has their own criteria on preparing the final project special provisions so be sure to also follow their criteria.

### **3.5.1 Incorporation of Information and Changes**

Not all information is included in the project special provisions for the Advance review period. Be sure to complete all required fields during the preparation of the final version. Also incorporate all appropriate changes that were requested by the reviewers.

### **3.5.2 Boiler Plate Updates**

The Specification, Estimating and Office of Pre-Letting updates the boiler plates on a monthly basis. These updates are usually published ten weeks before they become effective and always correspond to a bid opening. An email is sent out to individuals that are on an update mailing list, notifying them of the updates. The updates are published on the [Special Provision Updates](#) web site. All applicable updates must be incorporated into the project special provisions before the project is submitted to the Office of Pre-Letting. To get on the update list, fill out the form at the [Specifications Update Notification](#) web site.

### **3.5.3 Class of Work**

Determining the "Class of Work" is necessary because of the requirement that the prime contractor perform 30% of the work with his own work force and that the prime contractor be prequalified in the class of work listed in the ad, bid booklet, and special provisions.

Regardless of how obvious the "Class of Work" might be, the form must still be filled out. It may be used later by legal staff to justify ODOT's choice should a contractor file a protest.

The [Class of Work Form](#) and [Instructions](#) are available on the Specifications web site.

### **3.5.4 Final Review and Proof**

Have another person, preferably someone with specification writing experience, review the project special provisions before the final version is prepared. Also proofread the project special provisions and check for typographical and formatting errors.

### **3.5.5 Final Checks**

Make a final check for any omissions or inconsistencies. Some items to check include:

- Be sure that the latest version of the Bid Schedule is included at the end of the special provisions
- Make sure the title of the plans in 00120.05 is exactly as described on the plan title sheet
- Check completion times on the bid booklet and special provisions Description of Work page are the same and it also matches 00180.50(h)
- Be sure the Class of Work is correct

## CHAPTER 4 - ESTIMATES AND COSTS

### 4.1 General

Estimates and costs include a list of all bid items, anticipated items, contingencies, and construction engineering amounts.

### 4.2 Costs

For ODOT prepared projects, the appropriate Unit or Section, (Roadway Engineering Traffic Control Plan Design, Erosion Control, Bridge, Traffic, etc.), will provide the costs for their bid items. If they don't provide the costs, ask for them. It is the responsibility of the local agencies and consultants to provide costs on projects not prepared by ODOT.

### 4.3 Segregated Quantities

Projects with different kinds of funding sources may require a list of segregated quantities (items with costs that are split into appropriate funding categories). Contact the Region financial coordinator for confirmation of segregated quantities.

### 4.4 Using Trns·port Estimator

Trns·port Estimator is a proprietary software product that is used by ODOT to manage and maintain project bid items, contract pay items, and construction payments.

**4.4.1 Trns·port Estimator Permissions** - All Trns·port Estimator, users must have permissions to use it. (*Contact Steve Specht, Trns·port Administrator, at 503-986-4217 for permissions*).

Consultants and Local Agencies that want to use ODOT facilities must also have ODOT login permissions. To obtain login permissions, go to the [Trns·port Estimator](#) web site.

**4.4.2 Project Federal Aid Number** - All Federal funded projects must have construction Federal-Aid numbers. To get a Federal-Aid number, go to the [Trns·port Estimator](#) web site.

[Trns·port Estimator Data Entry Guideline](#) is available at the Estimating web site.

#### **4.5 Anticipated Items**

Anticipated items listed on the estimate are for things that are not already included on the project plans or included in the project specifications but might be anticipated that the contractor is to perform under the contract as a change order.

Anticipated items come from various sources, however check with the Project Manager and Project Leader for any anticipated items to be included on the project estimate.

#### **4.6 Construction Engineering Budget**

Obtain the construction engineering budget amount from the Project Manager, ODOT's Consultant Project Manager, or Local Government Liaison as appropriate.

#### **4.7 Final PS&E Cost Estimate**

After all changes have been made in Trns·port Estimator, print out a new estimate to be included with the PS&E package along with an electronic copy (either CD, e-mail, or direct input at a Region office).

Also complete the [PD-02 Project Completeness Memo](#). This form is CONFIDENTIAL and must remain so until the contract is awarded. The only people that should know the costs include the Project Manager, Project Team Leader, Local Agency Liaison, Consultant directly working on the project, and Specification Writer.

All estimates that exceed the programming Estimate (from the [Six Month Schedule of Contract Lettings](#)) require Region authorization for the additional costs.



## CHAPTER 5 - PLANS

### 5.1 General

Plans, provided by many disciplines working on the project are given to the specification writer for preparation of the "Advance" stage and the "Final" stage.

### 5.2 Advance Project Plans

Review the plans for consistency and look for discrepancies. Usually plans are prepared by more than one discipline so inconsistencies and discrepancies can occur. This is also a good time to make sure that all construction items shown on the plans have corresponding specifications and bid items.

#### 5.2.1 Title Sheet and Accompanying Drawing Number Sheet(s)

Be sure the following information on the title sheet is correct:

- The list of all project specific plan drawing numbers are complete and listed
- All the appropriate standard drawings are listed
- The project title, kind of work, and dates are correct
- The project overall length is correct

Provide the Federal Aid Project number (This is obtained from ODOT's Highway Finance Section).

#### 5.2.2 Plan Sheets

Compile all plan sheets in the order shown on the title sheet. Use 11" x 17" size sheets, or, if included in the special provisions, use 8-1/2" x 11" size sheets. Include all plan sheets from the other disciplines involved in project. DO NOT include standard drawings for the Advance stage. Be sure all advance plan sheets include the word "Advance" on them.

### 5.3 Final Project Plans

Final project plans are prepared after the "Advance" review. The Final process includes the following:

- Give all advance plan comments and information to appropriate discipline
- Be sure all stamps and signatures are included on the plan sheets
- Check that all appropriate changes have been made to the plan title sheet
- Be sure Federal-Aid number is included on title sheet (if Federal Funded)
- Be sure Project "V" numbers are included on all roadway related plan sheets
- Be sure that you have all the plan sheets

Each Region, however, has their own criteria on preparing the final project plans so be sure to also follow their criteria.

## CHAPTER 6 - PS&E SUBMITTAL

### 6.1 General

Final Plans, Specifications, and Estimate (PS&E) are required to be submitted to the Office of Pre-Letting no later than 24 days before the advertised date. This is approximately 6 1/2 weeks before bid opening for a three week ad project. For non-exempt Federal funded projects, add an additional 21 days to the process for FHWA review and approval.

All forms, certifications, and required documentation, along with the final special provisions, plans, and Trns·port estimate are required at PS&E submittal. For additional information on PS&E submittal, see the [User's Guide to PS&E Delivery](#). Required forms are available on the [Specifications Forms Web](#) site.

Projects submitted after the scheduled time or projects submitted without all required forms, certifications, and documentation could be delayed.

Some things to consider before submitting the package to the Office of Pre-Letting include:

- **Plans (P)**
  - Be sure title sheet has correct title, bid opening date, project number, and is stamped and signed
  - Be sure all plan sheets have appropriate stamps and signatures
  
- **Special Provisions and Estimate (S&E)**
  - Be sure the plan title in 00120.05 matches exactly as written on the plan title sheet
  - Be sure the completion times are the same in the bid booklet and special provisions Description of Work Page as well as 00180.50(h)
  - Be sure the Class of Work matches in the bid booklet and special provisions and that it is correct
  - Be sure every bid item has a corresponding special provision
  - Be sure measurement and payment is detailed for all bid items that are not already covered by the Standard Specifications
  - Check for errors and omissions
  - Be sure the signature pages are stamped and signed by appropriate parties

## CHAPTER 7 - ADDENDA

### 7.1 General

Changes to the bid booklet, special provisions, or plans after they are printed are done by addenda.

#### 7.1.1 During Advertisement Period

All addenda that are required during the advertisement period are to be prepared by the local agency, consultant, or Region as appropriate and sent to the Office of Pre-Letting Section for publishing. An addenda template is available on the [Specifications Forms Web](#). For a complete guide in the timing and preparation of Addenda, see the [User's Guide to PS&E Delivery](#).

#### 7.1.2 Bid Opening Day

All addenda must be incorporated into the project special provisions. By the close of business on bid opening day, submit an electronic copy of the updated project special provisions, with all addenda incorporated into them, to the Office of Pre-Letting. For additional information, see the [User's Guide to PS&E Delivery](#).

## CHAPTER 8 - ARCHIVE

### 8.1 General

By law, ODOT is required to keep all specification files for at least eight years.

### 8.2 Preparing Job Files for Archive

Prepare the project files as follows:

- Make sure that the "Project Record" is completely filled out
- Keep only one copy of all original special provisions, specifications, estimates, cost data, utility information, calculations, forms, etc. Keep copies of pertinent email correspondence. Keep copies of items with special notes written on them. (Discard duplicates)
- Electronic copies are acceptable for example; work copy of the special provisions, copies of emails, copies of all other electronic data pertinent to project
- Remove all plans
- Save anything that may be used in litigation, so, "When in Doubt, Keep It"

### 8.3 Archiving

Each Region office is responsible for archive project specifications. Consultants and Local Agencies need to submit the prepared job files to the appropriate Region for archiving.

## CHAPTER 9 - CHECKLIST

### 9.1 General

This is a checklist to help compile, prepare, and final PS&E documents.

### 9.2 Initial Preparation

- Request [Federal Aid Number](#) on web.
- Download all new [forms](#) and [documents](#) from the web:
  - Bid Booklet/Special Provisions Document Assembly
  - Boiler Plate Special Provisions
  - PD-02 Project Completeness Memo
  - Civil Rights DBE/OJT Data Sheet
  - Class of Work
  - Addenda Letter
  - Non-Exempt Federal-Aid Projects Revision Documentation
- Request and review plans, specifications, and estimates from all disciplines involved with project.
- Prepare estimate and bid schedule in "Trns-Port Estimator".
- Prepare the "[Bid Booklet/Special Provisions Document Assembly](#)" form using the estimate that was created in Trns-Port Estimator and from information received from other disciplines.

### 9.3 Advance

- Prepare the project special provisions.
- Check plan title sheet for all plan drawing numbers and standard drawing numbers. Check that type of work, project name, letting date, federal aid project number, (if known), and overall length of project are correct.
- Compile all plan sheets in the order indicated on the title sheet.
- Send out the Advance special provisions and plans copies for review or publish for electronic review.
- Request anticipated items from the construction project manager and project leader.
- Request utility timing and status report from the Region Utilities Liaison.
- Prepare final costs and completion time data.

- Request DBE/OJT numbers from Civil Rights Section.

#### 9.4 Final

- Review and incorporate appropriate "advance" comments into final project special provisions. Give all plan comments to appropriate discipline.
- Incorporate all other data received from Civil Rights, Railroad, Utilities, etc. into the final project special provisions.
- Incorporate "boiler plate special provision updates" into the final project special provisions.
- Determine the Class of work for project by filling out the "[Class of Work](#)" form and incorporate into final project special provisions.
- Review and proofread the final draft project special provisions.
- Update the estimate.
- Prepare PS&E estimate ([PD-02 Project Completeness Memo](#)).
- Make final check of completion time between Description of Work pages in the bid booklet and special provisions and special provisions subsection 00180.50(h).
- Be sure special provisions signature pages are signed and stamped.
- Be sure all stamps and signatures are included on the plan sheets.
- Check that all appropriate changes have been made to the plan title sheet and accompanying drawing list sheet(s) (1 and 1A).
- Prepare final PS&E package including [PD-02 Project Completeness Checklist](#) and all required documents and certifications.
- Submit final PS&E package to the Office of Pre-Letting.
- Write addenda letters as needed and submit to the Office of Pre-Letting.
- Incorporate addenda into final project special provisions.
- Submit final with addenda project special provisions to the Office of Pre-Letting by close of business the day of bid opening.
- Prepare project file for archive storage and submit to the appropriate Region office.

## CHAPTER 10 - WORD WRITING REQUIREMENTS

### 10.1 General

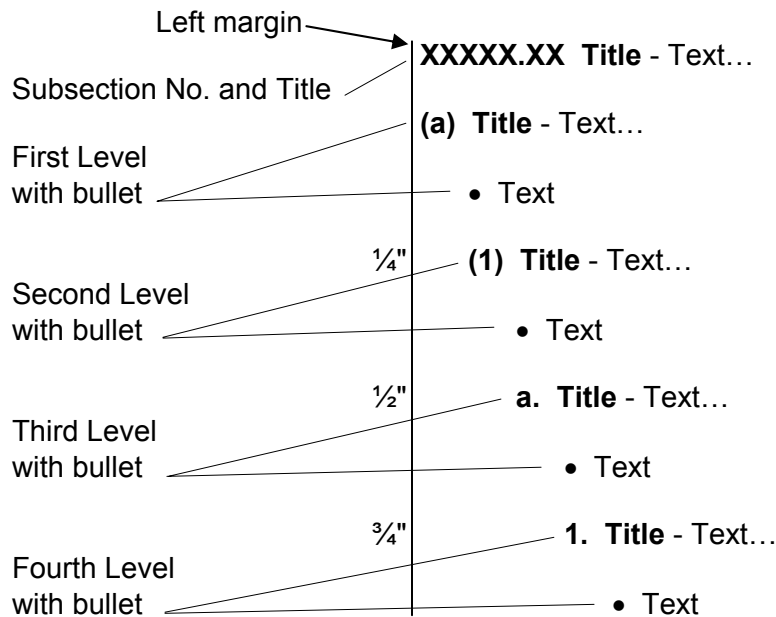
ODOT uses Microsoft WORD software for creating and maintaining boiler plates and project special provisions. For consistency and integrity use MS WORD 2002 or newer.

### 10.2 Fonts and Margins

The following formatting is used in all documents:

- Normal Style
- Arial Font at 11 point size
- All text is Full Justified
- Page Setup is:
  - Margins are set at 1 inch all around
  - Header and Footer Margins are set at 0.5 inches
  - Gutter is set at 0.3 inches
  - "Mirror margins" under "Pages/Multiple pages" is selected
- Tabs are set at 0.25 inch increments
- All titles and title numbers are Bold. Underline is not used.
- Page numbers are at bottom right
- Paragraph numbering and Indent levels are:
  - Subsection numbers and titles are at left margin
  - Paragraphs (a), (b), etc. are at left margin
  - Paragraphs (1), (2), etc. are at 0.25 indent, (use indent, not tab)
  - Paragraphs a., b., etc. are at 0.50 indent, (use indent, not tab)
  - Paragraphs 1., 2., etc. are at 0.75 indent, (use indent, not tab)
  - Do not indent beyond four levels
  - Always indent bulleted items 0.25 inch in from the previous paragraph

Example:



### 10.3 Do's, Don'ts, and Other Considerations

- Do use Microsoft Word 2002 or newer
- Do turn off "Define Styles..."
- Do use "Track Changes"
- Do use "Hidden Comments"
- Do provide user information
  
- Do not change, modify, or remove existing Table of Contents hidden field codes
- Do not change, modify, or remove existing Headers or Footers
- Do not change or modify existing Page setup settings
- Do not change or modify existing Fonts
  
- Be careful of deleting, changing, or modifying Section breaks
- Be careful of deleting, changing, or modifying Page breaks
- Be careful of deleting, changing, or modifying Page numbers

### 10.4 Table of Contents Fields

Table of Contents (TOC) fields have already been built into the boiler plates and are hidden from view. A TOC is the list of the special provision section headings that are in the document. When a TOC is created, Word searches for the specified heading fields, sorts them by heading level, and displays the them on the Table of Contents page.



Follow these steps to create a TOC field:

- Highlight the Section Heading for which you want a TOC
- Press the Shift, Alt, and O (oh) keys simultaneously  
A "Mark Table of Contents Entry" dialog box appears. Be sure the "Table identifier" shows "C" and the "Level" is "1". Select "Mark then select "Close"
- Highlight the TC text and remove the Bold

#### **10.4.1 Creating and Updating Table of Contents**

To create a Table of Contents in a project special provision, be sure you are in the Table of Contents page ([SP TOCFED](#) or [SP TOCSTA](#)). Place the cursor in the appropriate area of the page and do the following:

- Select Insert / Reference / Index and Tables
- Select the Table of Contents Tab
- Select Options...
- In the Table of Contents dialog box, deselect Styles and Outline levels
- Select Table entry fields then select OK and OK again

To update an existing project special provisions TOC, place the cursor anywhere inside the TOC. It should change to a gray color. Right click the mouse and select Update field. In the Update Table of Contents dialog box, select Update entire table then select OK.

#### **10.5 Headers and Footers**

Headers and footers are required at the top and bottom of most pages in a document. They vary depending on the special provision section.

You can work in the header and footer areas by clicking Header and Footer on the View menu. Be very careful when working in the header and footer. Unsuspected changes can occur. If you need to modify headers or footers, always start at the last header or footer and work toward the beginning of the document.

#### **10.6 Page Break/Section Break**

Page breaks ensure new special provision sections start at the top of a new page or allow tables or other text to not break across pages. To create a page break at a specific location in the document, select "Insert/Break.../Break types/Page break". Headers and footers continue the same throughout the page breaks.

Section breaks allows different formatting between special provision sections. For example, to have a different header and footer between special provision sections, a section break is inserted. To create a section break at a specific location in the document, select "Insert/Break.../Section break types/Next Page". You can then edit the header or footer as appropriate.