Acknowledgements:

The State Offices were called upon to review the draft of this guide before final reproduction and distribution. The responses were impressive, timely, well-thought-out, numerous, humorous, nit-picky, easy-to-read, indelible, and colorful. Some people used the response form attached to the back of the draft copy, while others put their comments in memo form. Still others preferred to write on the draft copy where the comments applied. Also received were copies of the draft with "yellow stickies" stuck numerous places to supplement the comments scrawled across the text or in the margins.

Constructive comments and questions were received from the following persons/segments within BLM:

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<th>State</th>
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<tr>
<td>AK 976</td>
<td>Norm Ziesmer</td>
<td>NV 941</td>
<td>George Clark</td>
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<td>CA 940.8</td>
<td>Gerald Everts</td>
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<td>Dana Cork</td>
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<td>ID 042</td>
<td>Steve Frazee</td>
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<td>Dennis Graham</td>
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<td>ID 050</td>
<td>Roger Dalrymple</td>
<td>SC 216</td>
<td>Branch staff</td>
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<td>ID 941</td>
<td>Gary Stevens</td>
<td>SC 651A</td>
<td>Larry Keller</td>
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<td>MT 941</td>
<td>James Norris</td>
<td>WY 941</td>
<td>Jim Kor</td>
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<tr>
<td>NM 010</td>
<td>Rich La Casa</td>
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Their invaluable assistance is greatly appreciated. This guide would not have been produced without the help of all of these people.

Comments and recommendations for improvements of future editions are solicited from any reader of this guide. A response form has been provided at the back of the guide that can be either mailed or FAXed; a preaddressed FAX cover sheet is also included.
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Preface
(to the Second Edition)

The original "User’s Guide for Preparing BLM Project Specifications," produced in 1987, was found to be helpful by the BLM staff who used it. The time has arrived for it to be updated so that it will continue to be a useful tool to specification writers/designers. The title was shortened for the second edition to "Specification Writer’s Guide." This revised Guide is a result of the good-willed comments, suggestions, complaints, and contributions of its users, as well as changes in the construction industry, technology, and the Federal Government. This edition contains items from the original version that people couldn’t do without, as well as additions that many people felt were either missing from the original or are needed now because of "changing times."

I have tried to strike a useful common ground between the reviewers of the draft version who commented that they need less text cluttering the information, and those who requested that more information be provided for certain subjects. The result is scaled-down chapters and larger appendices. In this way, the information is presented quickly without excess information; however, the details and examples are available and cross-referenced for individuals needing more information.

No warranty as to the usefulness or completeness is expressed or implied concerning the guidelines and practices described in this guide.

Although every effort was made to avoid errors, you will likely find a few. Comments and recommendations for improvements of future editions are solicited. (A response form has been provided at the back of the guide that can be mailed or FAXed and includes a FAX cover sheet.) As always, try to verify the address, phone and FAX numbers before taking action, just in case "progress" has taken place.

December 6, 1996

Lori Quayle, Editor
Denver, Colorado
Chapter 1 - ACQUISITION REGULATIONS

Introduction

This guide was written to fulfill a need for understanding Government specifications: what they are, how they fit into Government procurement, what forms they should take, and what happens when they fail to perform their function. This book is not a Manual or a Handbook, both of which have the power of law behind them. This book is intended as a guide for both experienced and new specification writers/designers who need a ready reference. It is a collection of material helpful in understanding and writing specifications within the Bureau of Land Management (BLM).

Code of Federal Regulations

The rules that govern how the executive departments and agencies of the Federal Government operate are published throughout the year in the Federal Register. The information from the Federal Register is consolidated annually into the Code of Federal Regulations (CFR). The CFR is divided into 50 titles which represent broad areas subject to Federal regulation.

The law that governs executive agencies’ procurement is implemented by the Federal Acquisition Regulations (FAR) System. The FAR is located in title 48 of the CFR. The Federal acquisition regulations in chapter 1 (of title 48) are those government-wide acquisition regulations jointly issued by the General Services Administration, the Department of Defense, and the National Aeronautics and Space Administration. Chapters 2 through 99 are acquisition regulations issued by individual government agencies.

Department of the Interior

The Department of the Interior Acquisition Regulations (DIAR) augment and further explain the FAR. The DIAR covers the same topics as the FAR, but with more specific guidelines on certain topics. The DIAR is located in 48 CFR Chapter 14 (Parts 1401 through 1453).
Laws or rules governing other subjects concerning the Department of the Interior are in the following CFR titles, subtitles, and chapters:

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</table>

**Bureau of Indian Affairs**

**Minerals Management Service**

**Geological Survey**

**Bureau of Mines**

**Office of Surface Mining**

**National Park Service**

**Federal Property Management Regulation System**

**Office of the Secretary of the Interior**

**Bureau of Reclamation**

**Bureau of Land Management**

**Federal Acquisition Regulations**

**Fish and Wildlife Service**

**Endangered Species Committee**

**BLM Policy**

The Bureau of Land Management's policies and procedures are contained in BLM Manuals (usually in red 3-ring binders). BLM procurement policies are in BLM Manual Section 1510, which is supplemented by the 1510 Handbooks. Most of these handbooks are intended for use by non-procurement personnel. They contain procedural guidance that implements both the FAR and the DIAR. Engineering policies are in BLM Manual Sections 9100 through 9189. The Recreation Planning policies are covered in Sections 8300 through 8342. All of the above Manual Sections and Handbooks (listed in appendix B, page 44), are recommended reading for specifiers/designers.

**READER'S NOTE:** The full text of bolded FAR references in this guide can be found in appendix D, page 52. The CFR is usually cited with title, part, and section number, e.g., "48 CFR 10.006." However, when this guide discusses the FAR (CFR title 48, chapter 1), all citations will be referenced similar to "10.006" (part 10, section 006). An explanation of the numbering system of the FAR, DIAR, and BLM Manual Sections is included in appendix B, page 43.
Chapter 2 - SPECIFICATIONS

Definitions

The definition of specifications will vary depending on the source one uses. In general, specifications are "a detailed description of services, or of requirements, dimensions, and materials, qualities, and other information (not shown in drawings) that describe a plan or proposal for something."

The Government defines specifications as "...a description of the technical requirements for a material, product, or service that includes the criteria for determining whether these requirements are met." 10.001 By definition, Government specifications must include two fundamental elements:

1. A set of requirements that outlines what the Government wants done, and
2. A set of measurements by which the Government assesses whether it received what was ordered.

Content

The ideal specification has all conditions clearly stated and understood by everyone who reads it. Specifications should state only the Government's actual minimum needs and should be designed to promote full and open competition. Poorly written specifications cause misunderstandings that require clarification. This always causes time delays, increases costs, and may lead to contract claims and disputes.

In a dispute, the arbitrator determines if the wording of a contract can be reasonably interpreted in more than one way. When both parties have a reasonable interpretation, the judgement will likely go against the Government. This is based on the rule of contra proferentum, which states that problems caused by the language in the contract (two equally reasonable interpretations) must be resolved against the drafter of the contract.

Another consideration is that of manifest intent. This means that only the statements written in the contract are to be regarded—not what the specifier/designer might have meant. Each word is a part of the contract. Therefore, each word must be clear to those who read and interpret the requirements of the contract.
CHAPTER 2 - SPECIFICATIONS

Types of Specifications

The requirements of a contract can be written with two focuses: design and performance.

**Design Specification**
Focuses on the required means of achieving certain end results; procedures and materials are defined by the Government.

**Performance Specification**
Emphasizes the results that are desired and the criteria that will be used to judge the performance. The methods and materials to achieve the results are the Contractor's decision.

**Design specifications** are written using the following methods:

**Descriptive**--A method that defines the exact properties and qualities of materials, products, or equipment by stating the salient features; proprietary (brand) names are not used. This method also specifies the details of assembly and installation. The specifier/designer has control over the quality of the end product.

Drawbacks of descriptive specifying are: (1) the specifier/designer should have comprehensive experience in order to design the best means to complete the project. Newer employees usually don't have this; and (2) if the project has problems or fails, and the Contractor has complied with the specifications, the responsibility (and cost) for remedy falls on the Government.

**Reference Standards**--A non-proprietary method of specifying that states design requirements by reference to known industry standards and codes. This method, which is used for both design and performance specifications (below), uses reference standards for materials, products, design, workmanship, test methods, and standards that comply with public safety codes.

A disadvantage of relying on reference standards is that many standards include choices built into them. The desired properties must be chosen from several categories that are offered. The provisions of the referenced standards become part of the project specifications in their entirety unless they are tailored within the specification section. The FAR requires tailoring. 10.004(a)(3) If the reference standard is not tailored, any decisions about choices will likely be made by the Contractor, and the cheapest option will probably be the result and the Contractor's choice may not meet the minimum needs of the Government.

Another problem is that standards must be maintained. The organizations that produce the standards update or discontinue them periodically. The specifications should always contain the current (most recent) standards and codes. The writer/designer is responsible for knowing what information is in the latest standards.
Proprietary—Specifications are written to include manufacturers, model numbers, or other proprietary data.

The FAR requires that specifications be written not to specify a particular brand name, product, or feature of a particular manufacturer. However, infrequent situations allow brand name use. The order of preference for describing the Government’s needs are listed below. If the first requirement cannot be employed, then the second one should be exercised, and so on, until a method can be used that fulfills the Government’s needs.

1. Use Federal Specifications and Commercial Item Descriptions (See Federal and military specifications and Commercial Item Descriptions, page 8). 10.006

2. Write an adequate purchase description that states the essential physical and functional characteristics of the materials or services required. 10.004(b)(1)

3. Use brand name "or equal" verbiage, listing the salient characteristics that meet the Government’s necessary to justify this choice. 10.004(3)

4. Specify sole source brand name. This method must be extensively justified. (The specifier/designer should work with Contracting personnel to assure all legalities are met). 10.004(b)(2)

Performance specifications are written by stating the accomplishments that are expected. These are written to encourage the development of better systems and methods. Words such as "effectiveness" and "efficiency" are used with performance standards that are verifiable. The FAR encourages this method of specifying. 10.002(b)

A problem of performance specifying is regulating the quality. The specifier/designer must define the criteria by which the performance will be verified. A method to resolve this difficulty is to refer the Contractor to a reference standard (see Reference Standard discussion above) that includes descriptions of accepted tests. The specifier/designer must know and tailor the reference for the project within the text of the specification.
The examples that follow demonstrate the various methods and focuses of specifying the litter receptacle pictured at left. Specifications usually contain a combination of the focuses and methods of specifying. The specifier/designer decides which combination to use based on the project requirements and on which specification will take the least time and effort to produce, while being clear and concise in stating the Government's needs.

**Descriptive:** Litter receptacle has timber-like sides, color brown, mounted on metal supports. Timbers are constructed of 90 percent recycled post-consumer products such as milk containers. Liner is made of same material as timbers, black in color, and of 30-gallon capacity. Litter receptacle top is fiberglass, with side opening located between 15 and 36 inches from ground or floor surface; color is brown to match timbers. Onsite mounting is by permanent steel pedestal leg, 1-1/2 inches o.d. Shape is cylindrical and has no sharp edges. Finished height is 42 inches.

**Reference Standard:** Cylindrical litter receptacle, 22 inch diameter, constructed of timbers mounted on metal supports.
Timber Density: ASTM D 792, .25 lbs/cu inch.
Flat Fiberglass Top: contact molded, fire retardancy according to ASTM D 635.
Liner: Black, 30-gallon; liner compressive strength: ASTM D 695, 2550 psi @ 2-inch def.
Liner tensile strength: ASTM D638, 2160 psi.
Steel Leg Mounting: 1.5 inch o.d. permanent pedestal type.
Finished height: 42 inches.

**Proprietary:** Litter Receptacle: Polysite Model No. GR5002-22-42, by Landscape Forms, Inc., Kalamazoo, Mi, with the following salient characteristics:
1. Materials of 90 percent recycled post-consumer products.
2. 30-gallon capacity.
3. Finished height 42 inches.
4. Usable opening between 15 and 36 inches from floor surface.
5. Permanent pedestal mounting.

**Performance:** Appearance shall be similar in texture to the existing wood planking surroundings. Receptacle shall be environmentally responsible: 90 percent post-consumer products.
Color: Earthtone.
Capacity: Sufficient to accumulate waste of anticipated population of area for 3 days.
Liner: Removable; light enough in weight for easy maintenance by one person. Mounting:
Permanent and raised off floor surface for easy maintenance.
Design and Height: Shall comply with the following ADA requirements:
1. Usable opening: Located between 15 and 36 inches from ground or floor surface.
2. No sharp edges.
3. Adjacent clear space: 36- by 48-inch.
CHAPTER 2 - SPECIFICATIONS

Specification Writing Process

The specifier/designer should follow an established procedure. This ensures that nothing is overlooked. The following steps are suggested as a minimum:

**Step 1: Determine the Government’s Minimum Needs.**

The specifier/designer must establish the difference between what the Government wants and what it needs. Specifications should address only the Government’s minimum needs.

10.004

**Step 2: Outline the Project.**

Organizing (outlining) the project should be done in a tangible form: either with paper and pen, or computer and software. Using a consistent system helps assure that all components of the project are taken into account and included in the specifications. As the project is outlined, the specifier/designer can see which sections can be written using guide specifications, and which ones need to be acquired from other sources or written from scratch. A general construction project outline that has the preliminary concepts organized into categories is located in appendix C, page 47. These categories include the titles of BLM guide specifications that are available from the National Applied Resource Sciences Center in Denver, Colorado.

**Step 3: Do Market Research.**

Technology changes some products rapidly. The specifier/designer should be aware of the best materials, products, or methods for each project, doing whatever research is needed to locate up-to-date information. The FAR requires market research. 10.002 (a)(2)

The specifier/designer needs to determine if a product or material is appropriate for the project, i.e., functionality, compatibility with other products, availability, life expectancy, maintenance requirements, and meeting of code requirements. Initial cost should not be the only factor in selecting a type of product. Maintenance and operational (life cycle) costs should also be considered.

Specifiers/designers can begin their product or services research by reviewing relevant trade magazines. Another source of information is manufacturer’s catalogs. Two sources that are widely used are *The Thomas Register of American Manufacturers* and *Sweet’s Catalog File*, which are published annually. These are compilations of manufacturers’ information.
The *Thomas Register* has three parts:

1. **Products and Services** (volumes 1-17): Sources for 52,000 products or services are listed alphabetically. Sources are listed for products or services.

2. **Company Profiles** (volumes 18-19): Information on 153,000 U.S. companies, including addresses, phone numbers, locations of sales offices, distributors, and listings of company product lines.

3. **Catalog File** (volumes 20-27): At least 2,000 supplier catalogs, brochures, and other product literature.

*Sweet’s Catalog File* contains catalog cuts from manufacturers. It also has indices that specifiers/designers will find helpful for locating information in the CSI 16-division format. The following two indices are in every (hardcover book) volume:

1. **Where To Find** is organized numerically by section numbers corresponding to CSI’s 16 divisions. Under each section, companies are listed that offer products having to do with that area of construction.

2. **Firms** alphabetically lists the companies that have catalog cuts in *Sweet’s*.

*Sweet’s Catalog* also puts some of their products on a CD-ROM program called *SweetSource*, which allows the designer/specifier to import drawings into computer assisted drawing (CAD) programs and product specifications into word processing programs to save typing time. However, the specifier/designer cannot simply import the information into the specification section because that would create proprietary specifications. The specifier/designer also cannot pick and choose requirements from literature of several manufacturers in an appearance of market research, because that would most likely specify a non-existent product. The specification must be written to specify obtainable materials or products and, as required by the FAR, to promote full and open competition. 10.002(a)(2)

**Step 4: Investigate Previously Written Documents.**

It is time-saving to use a previous project specification if it was written for a project that is very similar to the current project and if, with little revising, it will serve the purpose. The specifier/designer must also be careful that the document (1) is already in, or can easily be converted to the proper format; and (2) contains current technology, regulations, and standards.

Federal and military specifications are two public domain resources that can be used word for word without fear of copyright infringement; they can also be referenced within a project specification. The specifier/designer must tailor the various options in the specification to fit the project. Federal specifications can teach the specifier/designer about products and processes because they cover each subject thoroughly. They also serve as a good source of salient features. The two major indexes of Government specifications are (1) the Department of Defense Index of Specifications and Standards
Step five: Write, Tailor, and Edit the Material.

By this step, the specifier should know the project, technology, and processes to be used in depth, and also the products or resources that are available. At this step, the specifier/designers apply their knowledge of the methods of specifying (descriptive, reference standard, proprietary, and performance; see explanations on page 4). The specifier/designer either writes from scratch or adapts existing documents to the project by red-lining: adding to, or deleting from, the printed material, as necessary. Tailoring, which produces a better specification, is required by the FAR 10.004(a)(3). The specifier/designer must tailor each guide specification section to fit the current project.

Well-written specifications convey the message with the fewest possible words. The degree of detail is a matter of judgement; more complex jobs will usually contain more verbiage. Specifications are more efficient when they are simplified. To simplify, position the subject first, followed by a colon and explanatory text, as in the following examples:

A. Forms: Brace to prevent deformation and displacement.
B. Compaction: AASHTO T 99; 95 percent of maximum density.
C. Excavation: Section 02224 - Excavating, Backfilling, and Compacting for Structures.

When using reference specifications to control the work, "industry" specifications (e.g., ASTM, NFPA) should be used. When preparing Division 2 - Sitework, the AASHTO specifications should be used where applicable. Other industry specifications may be used only for situations not covered by AASHTO. Military or federal specifications may be used when either AASHTO or private industry standards do not address the required work.
CHAPTER 2 - SPECIFICATIONS

To simplify the REFERENCES Article of Division 1 specifications, BLM has modified the text found in reference indexes. The following four examples demonstrate the type of revisions that may be substituted:

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<thead>
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<th>BLM Revised Title of Reference</th>
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<tr>
<td>Specifications for Chemical Admixtures</td>
<td>Chemical Admixtures</td>
</tr>
<tr>
<td>Standard Specification for Copper Alloy</td>
<td>Copper Alloy</td>
</tr>
<tr>
<td>Standard Test Method for</td>
<td>Test Method for</td>
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<tr>
<td>Standard Method of Test(ing) of</td>
<td>Method of Test of</td>
</tr>
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</table>

Although most specifier/designers write and word process their own specifications, an office standard for editing marks should be designated that contains the marks that most specifiers/designers will use. If an emergency occurs which causes the specifier/designer to be away from the office for an extended period of time, coworkers could decipher the author’s intent and keep the project moving forward. See Chapter 4 - FORMAT, page 34, for a suggested editing procedure and proofreading marks.

Step 6: Correlate Drawings, Specifications, and Cross-References.

Cross-referencing to other paragraphs within the specifications should be kept to a minimum; use them only to clarify the relationship of requirements, or to avoid repetition. The specifier/designer must ensure that the information in both places is in agreement.

Several Contractor claims against the Government arise from discrepancies between the drawings and the specifications. Many times the information is in the wrong location. The BLM Manual Handbook 1510-3 and the BLM Manual Section 9102 state that the specifications govern over the drawings. The specifier/designer should know where each type of information belongs.

Specifications should contain the following information:
1. Type and quality of materials, and methods of installation or fabrication.
2. Detailed information about alternative or optional materials or equipment.
3. Quality control for workmanship using standards and tolerances, inspections, and tests.

Drawings show relationships of objects to each other. They should show the following:
1. Location of the project on the site (and location of the site in relation to conspicuous landmarks).
2. Architectural and engineering design, including dimensions, elevations, quantities, shapes, sizes, and areas.
3. Generic names or symbols representing equipment and materials. The choice of words should be consistent. The "restroom" in the specifications should not be called "toilet" on the drawings.
4. Details of connections and relationships of material.
5. Notes giving additional information on key design elements; however, notes on the drawings should be kept to a minimum.
6. Identification of any symbols used on the drawings in a schedule of symbols included with the drawings.
BLM policies regarding drawings associated with specifications are as follows:

1. Drawings are not to be dated until they are approved and signed.
2. Standard drawings will be used when they are applicable.
3. A typed index for the drawings is to be included in the design package in addition to the specifications index. A sample of each is shown in appendix A, page 41.
4. Drawings, other than Title Sheets, need to be signed by the originator-designer, including the person’s title after the signature, and by the Approving Official, including the person’s title below the signature.

Metric Usage

Public Law 100-418 designated the metric system as the preferred system of weights and measures for U.S. trade and commerce. This law also directed all Federal procurements, grants, and other business-related activities to be metric by September 1992, unless this was impractical or likely to cause loss of markets to U.S. firms.

Specifications should use either meters or millimeters for most measurements, even large ones. Use of millimeters is consistent with dimensions in major codes, such as the National Building Code (Building Officials and Code Administrators International, Inc.) and the National Electric Code (National Fire Protection Association). Centimeters should never be used in specifications; the American Institute of Architects (AIA) and the American Society for Testing and Materials (ASTM) note that a small class of items do reference standards using centimeters, such as fire ratings for some products. These areas, which account for less than two percent of specification references, should make reference to centimeters.
Chapter 3 - STYLE

References

Specifications are written communications that state general and specific procedures and requirements for a project. They are legally enforceable as contract documents; therefore, the language in the specification must be clear. Specification text should also have correct grammar and punctuation. Three references that have proven useful in the past are the Government Printing Office (GPO) Style Manual, the Shipley Associates Style Guide, and the Gregg Reference Manual. Where these three references disagree, the most commonly known usage should be chosen over the academic application.

Rules of Thumb

There are many more rules and exceptions to English usage than are addressed in this Writer's Guide. However, listed below are some rules of thumb for English usage to apply when developing specifications:

1. Use short, direct sentences or phrases. Always ask yourself, "What is the point I am expressing?" Try to use less than ten words to a sentence.
2. Once a word is chosen, use it consistently throughout the specifications whenever the same meaning is intended. If restroom is chosen, do not substitute toilet, washroom, or lavatory later in the text.
3. Remember that in a Government contract, the only parties to the contract are the Government and the Contractor. The Government representative is always called the Contracting Officer. Do not mention the Contracting Officer's representative, project supervisor, subcontractor, architect, engineer, or owner.
4. Try to address instructions to the Contractor using the imperative mood. Imperative language indicates that the Contractor is responsible for the action specified.

This:
Paint metal with red enamel.
Protect materials from damage.
Broom clean the surface before applying finish.

NOT This:
Metal surface shall be painted with red enamel.
Materials shall be protected from damage.
Surface shall be clean before finish is applied.
ACTIVE/PASSIVE VOICE: Use imperative, active voice sentences to give directions or commands. Indicative, passive voice sentences are unnecessarily wordy.

1 Imperative, active voice sentences are recommended for specifications. They usually begin with a verb.
   - Install walls plumb.
   - Paint exposed surfaces.

2 Indicative, passive voice requires the use of "shall" in nearly every statement. Use "shall" sparingly. Avoid the phrase, "The Contractor shall..." because the whole contract is addressed to the Contractor; therefore, Contractor is always implied.

3 The use of "will" indicates that someone besides the Contractor is responsible for the action described; be sure to always indicate who "will."
   - Power company will install primary cable.
   - Government will supply stone for retaining wall.

4 The use of "should" indicates that an action is not mandatory. The Contractor is advised to take action, but no legal responsibility is assigned.
   - Bidders should visit the site to determine the extent of work.

5 Words such as "must" and "are to" are best avoided. Note that the following sentences do not indicate who must take action.
   - Soil must be compacted before foundations are placed.
   - Site furnishings are to be assembled and installed on site.

   In this case, use the imperative mood:
   - Compact soil to 95 percent before placing foundations.
   - Assemble site furnishings on site and install as indicated on the drawings.
ABBREVIATION is the shortened form of a word or phrase used mainly to save space in a document. It allows writers to avoid repeating tediously verbose phrases or lengthy words.

1. Ensure that users of construction documents understand the meaning of all abbreviations. When using an abbreviation that may not be familiar to the reader, spell out the term and enclose the abbreviation in parentheses when it is first used; e.g., Bureau of Land Management (BLM).

2. Be consistent within the material; do not abbreviate a term in some sentences and spell it out in other sentences. Keep the same form of the abbreviation throughout; e.g., COD vs. c.o.d.

3. Do not use the abbreviation "in" for inch or inches. Do not abbreviate degree, degrees, or percent, or use the ° and % symbols. Always spell out these units of measure.

4. Eliminate periods in and after most abbreviations made of ALL CAPITAL LETTERS:
   - AFL-CIO, CBS, YWCA, OPEC, NFL, TWA

   NOTE: By convention, some abbreviations still require periods:
   - geographic names: U.S., U.K.
   - academic degrees: B.A., Ph.D.

   Most small-letter abbreviations require a period after each letter (except for metric units of measurement):
   - a.m., p.m., e.g., f.o.b.

   NOTE: Sometimes only one period is needed after the last letter: no. (number), etc. (etcetera)

5. Do not abbreviate at the beginning of a sentence.

6. Abbreviate a unit of measurement only when it is used as a measurement, not when it is used in general in a sentence: 6 mm but It was measured in meters.

7. Use the same abbreviation for both the singular and the plural form for units of measurement:
   - 6 kg and 1 kg, 1 m and 20 m, 23.5 mm and 1 mm

8. Do not abbreviate units of measure for pay units in the Basis of Payment article.

9. Consult a Webster’s College Dictionary 1991 or later edition for the acceptable forms of abbreviations and the corresponding punctuation.
CAPITALIZATION should be consistent throughout the specification sections. All of the text in the contract is equally important; therefore, using either underlines or ALL CAPS for emphasis is unnecessary.

1. Always capitalize: Contractor, Bidder, Government, and Contracting Officer.

2. Capitalize the first letter of the names of directions when they indicate specific areas, but not when they indicate just any direction or an unspecified geographic area:

   - Capitalize: the Deep South, the Midwest
   - Do not capitalize: south, west

   HINT: When the direction includes the suffix "ern," it is not capitalized.

3. Do not capitalize the first letter of a common noun used with a number or to indicate sequence:

   drawing 8, page 34, paragraph 4, plate VI, volume II.

COMMAS have two primary functions. They "set off" nonessential expressions that interrupt the flow of thought, and they separate items or phrases within a sentence to clarify their relationship to one another.

1. Place a comma between two complete thoughts joined by these conjunctions:
   and, but, or, for, nor, so, yet; e.g., Make the walls plumb, and make them soundproof.

2. Place a comma at the end of an introductory clause, especially those that begin with:
   if, when, since, although, as, until, after, and in.
   If the floor becomes scuffed, polish with compound.

3. Place a comma after each item in a series, and before the "and" preceding the final item:
   Do not install deformed, broken, or chipped culvert pipe.
   Clean surface of grease, dirt, and loose material before applying finish.
COMPOUND WORDS are words connected by a hyphen or without a space between; they are formed when two or more words are used together as a single entity.

When applying the following rules for compound words, keep in mind that English is a living, evolving language. Word forms constantly undergo modification. Sometimes, two words begin as a hyphenated word, then are printed as one word later. However, most often the transition is from the two- to the one-word form, bypassing the hyphen stage. The rules cannot be applied inflexibly. Current language trends point to closing up words which, through frequent use, have become associated as units of thought. When in doubt, check the dictionary that is your office standard.

1. Write compound words as two words when they appear in their regular order and the meaning is clear: test case, flood control, sick leave, barn door, civil rights

2. Combine words when the meaning would be unclear if they were separated (usually the first syllable receives the major emphasis in pronunciation).

warehouse whitewash cupboard
doorstop bathroom seaward
slowdown fallout setback
breakdown carryover locksmith

3. In general, do not use a hyphen to set off a prefix or suffix unless the meaning would be mistaken for another word that is spelled the same.

re-cover recover re-treat retreat
un-ionized unionized multi-ply multiply
re-sorting resorting re-form reform

NOTE: Use a hyphen to prevent doubling a vowel or tripling a consonant:
shell-like brass-smith micro-organism semi-independent

4. When a series of hyphenated adjectives has a common basic element and the element is omitted in all but the last term, insert a hyphen after each of the incomplete adjectives:
2-by 4-inch boards moss- and ivy-covered walls
six- to eight-week delays

5. Generally speaking, hyphenate words ending with in, on, between, through, or together:
break-in go-between walk-through get-together
cave-in in-between run-through

6. Hyphenate words that signify two functions of relatively equal rank:
lawyer-diplomat true-false test sand-gravel mixture
LEGAL JARGON: Avoid using phrases that have missing "objects" and phrases used in legalese.

1. Do not use a slash to replace "and," "either," or "or." Slashes should be avoided except as a "per", as in ft/min.

2. Avoid the legal jargon listed below:

<table>
<thead>
<tr>
<th>As appropriate</th>
<th>Grants</th>
<th>Duly authorized</th>
<th>all</th>
</tr>
</thead>
<tbody>
<tr>
<td>As approved</td>
<td>Hereby</td>
<td>of said</td>
<td>the following</td>
</tr>
<tr>
<td>As directed</td>
<td>Herein described</td>
<td>for the purpose</td>
<td>and/or</td>
</tr>
<tr>
<td>As indicated</td>
<td>Hereinafter</td>
<td>Such</td>
<td>shall function as intended</td>
</tr>
<tr>
<td>As necessary</td>
<td>Hereinbefore</td>
<td>etc.</td>
<td>in the judgement of the</td>
</tr>
<tr>
<td>As required</td>
<td>Herewith</td>
<td>In a workmanlike manner</td>
<td>CO</td>
</tr>
<tr>
<td>As specified</td>
<td>Wherein</td>
<td>To the satisfaction of</td>
<td>(s)*</td>
</tr>
<tr>
<td>As per</td>
<td></td>
<td>any</td>
<td></td>
</tr>
</tbody>
</table>

* Use either the singular or plural form of the word, whichever is most appropriate.

NUMBERS: Most readers comprehend numerals easier than numeric word expressions, particularly in technical, scientific, or statistical subject matter.

1. English, Pound: Use commas to separate blocks of five or more digits.

   12,345 sq. ft. but 6789 acres

   Metric: Use spaces instead of commas to separate blocks of five or more digits.

   12 345 kg but 6789 mm

2. For English/Pound quantities less than one: Use fractions typed with the number keys (3/4 and 5/16), instead of the ASCII characters (½), because the characters do not photocopy well.

   For metric quantities less than one: Always use a zero before the decimal point (0.432).

3. Spell out numbers from one to nine. For numbers of 10 or more, use Arabic numerals (2, 412, 5 555). If a number occurs at the beginning of a sentence or header, rephrase the sentence so that it doesn’t.

4. Be consistent throughout the sentence. Use the same style to express related numbers; if any of the numbers are above 10, put them all in figures.

5. Spell out numbers of less than 100 preceding a compound modifier containing a figure:

   forty 900 by 2100 mm doors, 125 #20 bars, two 18-gage bars
Always fit the complete dimension and reference standard on one line of text; do not separate or let them "wrap" to the next line.

Use a space between a metric digit and a symbol: \(123 \text{ mm}\) not: \(123\text{mm}\)

---

**WORD CHOICE:** Do not assume that the words used or known by a particular person or group are always known by another.

Avoid the following phrases:
- "Except as otherwise specified." This forces the Contractor to search for the "otherwise" and implies that the writer/designer does not know what is in the specifications. Try to determine what the exceptions are and then tell the Contractor by cross-reference where they occur.
- "At the Contractor's expense." This implies that other work is not at the Contractor's expense. Use the phrase, "at no additional expense to the Government," only to clarify work such as testing that could be the financial responsibility of either party.

"As required." This phrase implies that the requirement follows. It must always be written "as required in...", "as required to...", or similarly followed by a preposition and the statement of the requirement. Example: "Remove window and close up opening as required" is not only meaningless, but may even cause a Contractor to take the position that since no requirements follow, the opening created by the removal of the window was not the Contractor's responsibility.

Reference other sections of the specifications, as needed, for proper coordination of the requirements. References should be made to other section numbers and their titles only, not to article numbers or page numbers.

Maintain consistency in word choice, terminology, and spelling; e.g., "fascia" or "facia."

Do not use vague terms such as heavy, clearly, level, perfect, smooth, or true; specify the tolerance allowed. Also avoid using the following words and phrases:
- as directed
- indicated on drawings
- any
- all

**INSTEAD OF USING:**
- manufacturer's recommendations
- guarantee
- plastic
- ensure, insure
- Tee, Cee, Zee shaped items

**SUBSTITUTE:**
- manufacturer's instructions
- warranty
- PVC
- verify, provide
- T-, C-, Z-shaped items
Keep in mind that the specification will be useless or could create costly problems if the writer-designer cannot clearly communicate the needs of the project. The following words are often confused, misused, or overused; avoid using them if there is a possibility of misunderstanding:

Affect, Effect--The verb affect means to influence. The verb effect means to bring to pass or to accomplish. Effect also serves as a noun, meaning the result.

Amount, Number, Quantity--The word amount is used to refer to things judged by their weight, bulk, or sums of money. Number is used to refer to things that can be counted. Quantity is used to write about areas, measures, numbers, and volumes.

Any--The word any means a limited number selected at the discretion of the reader of the contract (Contractor); thus, "smooth any wrinkles," can mean just the wrinkles selected by the Contractor, while "smooth wrinkles" definitely means every wrinkle. Therefore, avoid using the word any.

And, Or, And/Or--And joins elements of equal grammatical value or of contrasting characteristics; it may also mean plus or added to the preceding quantity. Or is for any one of a series. Use one or the other because when used together, they mean anything (and/or) nothing.

Apparent, Evident, Obvious--Anything apparent is perceived by the senses (eyes, ears, etc.) Anything evident is proved or accepted as true. Anything obvious is so plain it cannot be missed or ignored.

Balance, Remainder--Balance is used only when writing about money; "the balance in the account." Remainder is that portion, remnant, or excess which is left over.

Continual, Continuous--Continual means frequent repetition, with breaks in the succession. Continuous means unbroken continuity, with no breaks, without ceasing.

Credible, Creditable--Credible means worthy of belief, believable. Creditable means deserving or worthy of praise.

Complement, Compliment--Complement is that which completes something. Compliment refers to praise or congratulations.

Either, Both--Either suggests a choice between two options. Avoid the use of "either" such as in "flowerbeds on either side of the sidewalk," when the intent is to have "flowerbeds on both sides of the sidewalk."

Expedite, Facilitate--Expedite means to accelerate progress or to hasten. Facilitate means to simplify, to make accomplishment easier.

Fewer, Less--Use fewer for numbers of things that can be counted or measured. Use less for amounts or degrees that cannot be counted or measured.
Imply, Infer--Imply means to hint, suggest, or insinuate. The speaker always does the implying. Infer means to draw a conclusion from what somebody says, or to judge from its evidence. The listener always does the inferring.

Insure, Assure, Ensure--To insure has to do with an insurance policy. To assure is to convince people of something. To ensure is to make secure or guarantee that there is no error.

Observe, Supervise--Observe means to see or regard the work. Supervise means to oversee during execution with the possibility of ordering changes.

Principal, Principle--Both the adjective and the noun principal mean the chief, or major. Principal means both the main person and the main idea. Principle means the rule, the basic law, the fundamental truth or doctrine.

Install, Furnish, Provide, Replace--Install means to place in position. (The Contractor might assume this means government-furnished materials.) Furnish means to supply. (The Contractor might believe that the government is going to install.) Provide means to equip or make available. "Provide" in government contracts means furnish and install. Replace could mean reinstallation of previously removed or previously used material.
Chapter 4 - FORMAT

Introduction

This chapter explains three formats that are used to prepare specifications for three different types of BLM contracts: (1) services, (2) construction excluding roads and bridges, and (3) construction focusing on roads and bridges.

<table>
<thead>
<tr>
<th>TYPE OF CONTRACT</th>
<th>CONTRACT FORMAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services</td>
<td>Uniform Contract</td>
</tr>
<tr>
<td>Roads and Bridges</td>
<td>FP-92 or CSI</td>
</tr>
<tr>
<td>Construction</td>
<td>CSI</td>
</tr>
</tbody>
</table>

Uniform Contract Format

"Service Contract" means a contract that directly engages the time and effort of a contractor whose primary purpose is to perform an identifiable task rather than to furnish an end item of supply. It can cover services performed by either professional or nonprofessional personnel. Some examples of nonpersonal services contracts include:

Janitorial
Recreation Site Maintenance
Camp Support
Tree Planting, Thinning
Chaining
Seeding
Aerial Spraying
Equipment Rental With Operator (Paid by hour--work directed by Government)
Test Well Exploration (Core samples--not create producing well)

Seed Collection
Scarification and Ripping
Wild Horse Facilities & Roundups
Veterinarian Services
Laundry Services

Service contracts must follow the Uniform Contract Format (UCF) described in FAR 14.201-1 (Sealed Bids--IFB) and FAR 15.406-1 (Negotiated Acquisitions--RFP, RFQ). The UCF is divided into 13 sections, A through M. The specifier/designer in the initiating office prepares the sections highlighted * below; the contract specialist incorporates the other necessary contractual elements:

A. Solicitation/contract form
B* Supplies or services and prices
C* Description/specifications/work statement
D. Packaging and marking
E* Inspection and acceptance
F* Deliveries or performance
G. Contract administration data
H. Special Contract requirements  
I. Contract clauses  
J* List of documents, exhibits, and other attachments  
K. Representations, certifications, and other statements of offerors or quoters  
L. Instructions, conditions, and notices to bidders  
M. Evaluation factors for award  

The sections that need to be written for services contracts by the initiating office are discussed below and explained more fully in BLM Handbook 1510-4, Contracting for Services. A sample Uniform Contract Format guide specification is located in appendix A, beginning on page 35.

Section B: This section constitutes the schedule of items.

Section C:  
C.1.0 GENERAL. This subsection provides a broad overview of the work and describes the scope of work. Examples of subsections could include:  
   C.1.1 Description of Work.  
   C.1.2 Location of Work.  
   C.1.3 Quality Control.  
   C.1.4 Safety.  

C.2.0 DEFINITIONS. Includes clear definitions of all special or unusual terms.  

C.3.0 CONTRACTOR-FURNISHED ITEMS. The CO describes material and equipment that the Contractor must provide.  

C.4.0 GOVERNMENT-FURNISHED PROPERTY. Should be listed as an exhibit.  

C.5.0 SPECIFIC TASKS. This states the Government’s needs accurately, sets a minimum performance level, and establishes assurances (tests) that the Contractor has performed the required services. The Statement of Work (SOW) relies principally upon the results of the service rather than the methods or process. The key elements are:  
   a. A statement of the required service as an end product.  
   b. A measurable performance standard.  
   c. An allowable error rate from perfect performance. It includes a written method of surveillance or inspection and provisions for enforcement of the standards of performance.  
   d. Subsections should follow the sequence of the work to be performed.  

C.6.0 EXHIBITS. Includes all items that are too lengthy to include in the main body of the SOW.  

Section E: The FAR provides a standard inspection clause for all services. The specific clause is determined by the contract specialist. The FAR clause may be supplemented with additional inspection and acceptance criteria. These
Chapter 4 - Format

Supplemental clauses will precede the FAR inspection clause. Examples of supplemental inspections clauses include:

E.1.0 Measurement of Payment.
E.2.0 Basis of Payment.

Section F: This section includes Contractor work progress plans, technical submittals, and reports.

Section J: This section includes all technical exhibits, wage rates, maps, and drawings.

Statement of Work Process

Writing the Statement of Work (SOW) for Section C of the services contract, has three phases: (1) job analysis, (2) writing the SOW, and (3) writing the surveillance plan. Each phase is discussed below.

1. Job Analysis.
   A. Analyze the function to identify the framework for what services must be performed. These services or outputs serve as the basis for the SOW; they also assist the writer/designer in developing the performance standards.
   B. After identifying the services (outputs) required of each function, link the services together in a logical flow of activities.
   C. Gather workload and resource data. To provide a service, a job requires the use of physical resources: assets and personnel.
   D. Determine the Performance Value. Services produce output to meet some defined quality level.
   E. (Deduct Analysis.) Prepare the estimated contractor cost of each specific function of the service activity. These costs are stated as a percentage of total contract cost.

2. Writing the SOW.
   A. After the services have been grouped during the job analysis phase, writing the SOW is a matter of listing the activities in a logical sequence.
   B. Concurrently, the performance indicators, standards, and acceptable quality levels are grouped together in the same logical way to be included in a "Performance Requirements Summary."

3. Writing the Surveillance Plan.
   A. Identify the key performance indicators, i.e., those that are critical to the process or output.
   B. Identify the information to be used (checklists and random sampling).
   C. Use tools. A "sampling guide" is a written procedure that states what will be checked, the standard that is to be used, and how the checking will be done. By sampling a small part, the CO can accept or reject the service, based on the standard. Decision tables (See Handbook 1510-4) are used if a service is rejected to decide how to proceed to resolve the problem.
FP-92


Although BLM policy states that either the FP-92 or CSI format may be used for projects involving roads, bridges, and culverts, the FP-92 is usually used. However, if the project is mostly construction of structures such as buildings, then the CSI specification format is used. The two formats are never combined; one or the other is used.

Listed below is an abridged table of contents to the FP-92. The numbers to the right of the division titles are page numbers; the document is actually a lengthy (paperback) book:

<table>
<thead>
<tr>
<th>Division</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>General Requirements</td>
<td>1</td>
</tr>
<tr>
<td>150</td>
<td>Project Requirements</td>
<td>61</td>
</tr>
<tr>
<td>200</td>
<td>Earthwork</td>
<td>93</td>
</tr>
<tr>
<td>250</td>
<td>Structural Embankments</td>
<td>143</td>
</tr>
<tr>
<td>300</td>
<td>Aggregate Courses</td>
<td>171</td>
</tr>
<tr>
<td>400</td>
<td>Asphalt Pavements and Surface Treatments</td>
<td>195</td>
</tr>
<tr>
<td>500</td>
<td>Portland Cement Concrete Pavement</td>
<td>265</td>
</tr>
<tr>
<td>550</td>
<td>Bridge Construction</td>
<td>295</td>
</tr>
<tr>
<td>600</td>
<td>Incidental Construction</td>
<td>453</td>
</tr>
<tr>
<td>700</td>
<td>Material</td>
<td>565</td>
</tr>
</tbody>
</table>

Creating FP-92 Specifications

All of the statements in the FP-92 apply to a contract unless they are deleted or modified by the specifier/designer in supplemental specifications. Likewise, FAR clauses in FP-92 apply unless they are superseded by General BLM Clauses, which can change for each project. A partial sample Supplemental Specification written for use with the FP-92 is located in appendix A, beginning on page 39.
CSI Format

The Construction Specifications Institute (CSI) has developed a system to categorize construction information into 16 divisions. The BLM Manual Section 9102, Facility Design, requires the use of CSI format specifications for all construction contracts, except for road and bridge specifications, which are written to supplement the current edition of the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects. When a project combines road work with buildings, such as a recreation area or an office building, only the CSI format is used. The list below shows examples of which areas of construction are written in CSI format:

Construction Services
Architect and Engineer Services
Utilities Services
Dams
Trails
Sewage Systems
Pipelines
Utilities (Govt. built, owned, operated, and maintained)
Wells (producing, plugging, abandonment)

Water Catchments
Fences
Campgrounds
Gabion Structures
Landscaping
Parking Lots
Habitat Improvement

Divisions

Each of the 16 CSI divisions has an assigned number and title. If there are no sections of work within a division, then that division is not used in the specification. However, the other remaining divisions are not renumbered. BLM has created Division 17 - SUPPLIES AND SERVICES. The 16 CSI division titles are listed below, as well as the BLM-created division.

Division 1: GENERAL REQUIREMENTS
Division 2: SITE CONSTRUCTION
Division 3: CONCRETE
Division 4: MASONRY
Division 5: METALS
Division 6: WOOD AND PLASTICS
Division 7: THERMAL AND MOISTURE PROTECTION
Division 8: DOORS AND WINDOWS
Division 9: FINISHES
Division 10: SPECIALTIES
Division 11: EQUIPMENT
Division 12: FURNISHINGS
Division 13: SPECIAL CONSTRUCTION
Division 14: CONVEYING SYSTEMS
Division 15: MECHANICAL
Division 16: ELECTRICAL
Division 17: SUPPLIES AND SERVICES
Sections

The subject matter within each division is arranged into "sections" that describe portions of the project. CSI uses a five-digit numbering system for its section numbers. Below is an example of section titles for Division 6 - WOOD AND PLASTICS:

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>Wood and Plastics</td>
<td>These section titles are published by CSI and are the BLM standard.</td>
</tr>
<tr>
<td>06300</td>
<td>Wood Treatment</td>
<td></td>
</tr>
<tr>
<td>06310</td>
<td>Preservative Treatment</td>
<td></td>
</tr>
<tr>
<td>06311</td>
<td>Preservative Treated Lumber</td>
<td>This section is created and assigned by BLM based on CSI suggestions*</td>
</tr>
</tbody>
</table>

* The CSI section titles and numbers are a national standard that BLM has adopted as policy. The CSI system allows flexibility with the last digit of the section number, allowing BLM to assign titles and numbers that apply to types of work that are generally exclusive to the BLM.

Division 1 sections cover administrative requirements applicable to all subsequent divisions and sections. This information, which is also necessary during the bidding process, becomes a part of the contract. Divisions 2 through 17 cover the technical or construction requirements of the project and also expand on the provisions in Division 1. Division 1 sections are organized and written in the same outline style (described in the Parts paragraph below) as the sections in Divisions 2 through 17.

Parts

CSI format subdivides each section into three parts of related information. BLM has added a fourth part to each section: Part 4: MEASUREMENT AND PAYMENT.

**PART 1: GENERAL** defines the administrative and procedural requirements unique to each section.

**PART 2: PRODUCTS** primarily defines and lists the items which will be incorporated into the work and establishes the quality of the items.

**PART 3: EXECUTION** describes the preparation and the steps necessary to incorporate the items listed in Part 2 into the project. It is also used to specify controls such as inspections.

**PART 4: MEASUREMENT AND PAYMENT** describes how the work will be measured for payment and how the payment will be made.

Parts 1, 2, and 3 are required in every specification section. If a particular part does not apply, the sentence, "There are no applicable requirements," is used. Part 4 is not required if the issue of payment is covered in Division 1. In this case, the sentence, "There are no applicable requirements," is not added to Part 4; instead, the entire part is omitted for that specification section.
Articles

Each of the four parts has standard Articles designed to place information in the same location, regardless of the section. Articles are major subjects consisting of one or more related paragraphs. The article headings always follow in the same order. If an Article is not appropriate, it is deleted for that specification section; however, it might be included in most of the other sections. When an Article is deleted, the other Articles are renumbered. Writer/designers may create their own Article titles for the particular project; however, in parts 1 and 2 of the specification section, the added articles should appear after existing CSI articles. In part 3 they should be inserted where they fit the sequence of the work. All of the CSI-suggested article titles and paragraphs are, in effect, optional; use those that fit in with the project and discard those that don’t.

Paragraphs

Articles are further divided into paragraphs. All paragraphs are identified with either a letter or number in the outline format. The individual paragraphs describe the type of work to be performed regarding the article subject. Paragraphs can be composed of subparagraphs to further describe the work. Each article (and its related paragraphs) should not override, restate, conflict with, or restrain the conditions of the FAR, DIAR, or sections of Division 1. The BLM standard suggested articles and paragraphs for each part under every section are shown on the following page:
## PART 1: GENERAL

### 1.1 SUMMARY
- A. Section Includes:
- B. Related Sections:

### 1.2 REFERENCES

### 1.3 DEFINITIONS

### 1.4 SYSTEM DESCRIPTION
- A. Design Requirements:
- B. Performance Requirements:

### 1.5 SUBMITTALS
- A. Product Data:
- B. Shop Drawings:
- C. Samples:
- D. Design Data:
- E. Test Reports:
- F. Manufacturer's Instructions:
- G. Closeout Submittals:

### 1.6 QUALITY ASSURANCE
- A. Qualifications:
- B. Regulatory Requirements:
- C. Certifications:
- D. Field Samples:
- E. Mock-Ups:

### 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Packing, Shipping:
- B. Handling, Unloading:
- C. Acceptance at Site:
- D. Storage and Protection:

### 1.8 SITE CONDITIONS
- A. Environmental Requirements:
- B. Existing Conditions:

### 1.9 SEQUENCING

### 1.10 SCHEDULING

### 1.11 WARRANTY

### 1.12 SYSTEM STARTUP

### 1.13 MAINTENANCE

## PART 2: PRODUCTS

### 2.1 EXISTING PRODUCTS

### 2.2 MATERIALS

### 2.3 MANUFACTURED UNITS

### 2.4 EQUIPMENT

### 2.5 COMPONENTS

### 2.6 ACCESSORIES

### 2.7 MIXES

### 2.8 FABRICATION

### 2.9 FINISHES

### 2.10 SOURCE QUALITY CONTROL
- A. Fabrication:
- B. Tolerances:
- C. Tests:
- D. Inspection:
- E. Verification of Performance:

## PART 3: EXECUTION

### 3.1 EXAMINATION
- A. Site Verification of Conditions:

### 3.2 PREPARATION
- A. Protection:
- B. Surface Preparation:

### 3.3 ERECTION

### 3.4 INSTALLATION

### 3.5 APPLICATION
- A. Sequence of Operation:
- B. Site Tolerances:

### 3.6 REPAIR

### 3.7 RESTORATION

### 3.8 FIELD QUALITY CONTROL
- A. Site Tests:
- B. Inspection:

### 3.9 ADJUSTING

### 3.10 CLEANING

### 3.11 DEMONSTRATION

### 3.12 PROTECTION

## PART 4: MEASUREMENT AND PAYMENT

### 4.1 METHOD OF MEASUREMENT

### 4.2 BASIS OF PAYMENT

**NOTE:** The spacing and indents in this example do not reflect the proper format.
CHAPTER 4 - FORMAT

Interagency Standard Format

BLM is working with National Park Service and the Forest Service to standardize the formatting and numbering system of construction specification sections common to the agencies. Standardization improves Contractor performance and understanding by providing consistency in government contract specifications. It also reduces duplication of effort by each agency. By utilizing standardized specifications, staffs have a much broader base of guide specifications available. These agencies have adopted a common format based on CSI conventions. The format standards listed below are demonstrated in the example on the following pages:

1. Margins: All are one inch (tops, bottoms, sides).

2. The first tab is set at the 1.2-inch position, with subsequent tabs every 0.4 inch (type: Absolute).

3. Only the first page of a section exhibits a header; subsequent pages of the section do not. The header is centered and ALL CAPS. It consists of the section number and the section title, separated by a blank line.

4. The footer of every page of each section consists of three bolded lines. The first line contains the section title in ALL CAPS at flush right. The second line contains the project name at the left and the written/revision date of the guide specification at flush right. The third line has the section number and page number and is centered.

5. One empty line is placed between the Part number and the first article, between article titles, and between paragraphs (but not between subparagraphs.)

6. Articles are identified by numbers that are flush with the left margin, followed by the single-indented article title in ALL CAPITAL LETTERS. Article titles are not followed by punctuation or text on the same line. (The information is contained in related paragraphs and subparagraphs.) Articles numbered lower than 1.10, 2.10, or 3.10 are numbered without a zero placeholder, i.e., 1.1 through 1.9, 2.1 through 2.9, and 3.1 through 3.9.

7. Paragraphs are indented once from the left margin followed by the single capitalized letter identifier and a period, which are also followed by an indent. Paragraphs consist of a heading, a colon, and explanatory text. The paragraph text should follow on the same line as the paragraph heading.

8. Subparagraphs are indented twice from the left margin, and are identified with a number and period, which are also followed by an indent. Subparagraphs do not require a heading followed by a colon; they can be short sentences, phrases, or lists that are clear and to the point. Subparagraphs do not have any blank lines between paragraph-subparagraph, or subparagraph-subparagraph.

9. Avoid beginning a Part, article, or paragraph at the bottom of a page that continues at the top of the following page without introductory/explanatory information. Also avoid continuing a single line of text onto the following page. Word processing programs have a feature that automatically corrects this situation; in WordPerfect, the feature is called Widow/Orphan.

10. The font is Courier, 10 point, which is 12 characters per inch (cpi). Courier is a nonproportional font, which means that two "w"s use the same amount of horizontal space as two "f"s or two spaces.
PART 1: GENERAL

1.1 SUMMARY

A. Section Includes: Removal of trees, stumps, and undergrowth; stockpiling of salvageable materials; pruning and disposal of removed vegetation and debris.

B. Related Sections:
General Information and Requirements Section 01009

1.2 PROJECT/SITE CONDITIONS

A. Work Limits: Areas to be cleared shall be those areas shown on the drawings.
   1. Work limits will be staked and control points established by the Government.
   2. The Government will mark or identify trees over 4 inches in diameter that are to be removed. Scalping of topsoil during clearing operations will not be permitted.

PART 2: PRODUCTS

2.1 EQUIPMENT

A. Requirements: Use no equipment larger than hand cutting tools and chain saws unless written approval is obtained from the Contracting Officer.


2.2 CHEMICALS

A. Stump Killers: Ammonium sulfamate solution shall be used on fresh cut stumps.

PART 3: EXECUTION

3.1 CLEARING

A. Scalping of Topsoil: Shall not be permitted.

B. Cutting: Cut trees and undergrowth flush with the ground.

C. Protection: Protect trees and other vegetation that are to remain from damage during clearing operations.

D. Grubbing: Remove stumps and root mats to at least 18 inches below grade.
3.2 CHEMICAL TREATMENT OF FRESH CUT STUMPS

A. Requirements: Ammonium sulfamate solution shall consist of 2 to 4 lb of dry crystals per gallon of water or other carrier approved by the Contracting Officer. Ammonium sulfamate solution shall be applied at the rate of 1 pt/ft diameter of stump. Treatment using 2,4-D solution shall be according to the manufacturer's instructions.

3.3 PRUNING

A. Requirements: Trees or shrubs that will require pruning but not removal will be marked by the Government.
   1. Do not remove more than 1/4 of the living foliage of the plants.
   2. Remove dead wood, rubbing branches, rotted stubs, borer infested, and structurally weak branches.
   3. Cut branches flush with the trunk or branch.

3.4 SALVAGE

A. General: Salvage only disease and insect-free trees and limbs.

B. Trees and Limbs Larger Than 4-Inch Diameter: Trim, cut into log lengths, not exceeding 10 feet long and stack where directed. The stacked material will remain the property of the Government.

3.5 DISPOSAL

A. Requirements: Material that is not to be salvaged shall be removed from the project site and disposed of offsite. Burning shall not be permitted.

PART 4: MEASUREMENT AND PAYMENT

4.1 METHOD OF MEASUREMENT

A. Units: The work described in this section will be measured on a lump sum basis.

4.2 BASIS OF PAYMENT

A. Payment: Prices and payment will be full compensation for the work described in this section. Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>02115(1)</td>
<td>Selective Clearing</td>
</tr>
<tr>
<td></td>
<td>Lump Sum</td>
</tr>
</tbody>
</table>

END OF SECTION
CSI Editing Procedure

After the specifiers/designers have outlined the project using a system similar to the outline in appendix C, page 47, or one of their own design, they know which sections are to be included in the project. They also know which sections must be written "from scratch" and which guide specification sections can be used. Always use an original printout of the guide specification if using guides. Avoid using a previous project’s specification. The use of an old project specification defeats the purpose of guide specifications, which is to stimulate ideas for possibilities on each new project. Additionally, try to use the latest issue of the guide specification, as it may contain alternate resources or methods. The following process is suggested for editing documents for projects using CSI format:

Step 1: Redline Method.

If editing someone else’s work on the computer, indicate the changes using software redlining keystrokes. If the editing is done with paper, use a red writing utensil or other easily seen (and photocopier-friendly) color (not blue). The proofreading marks at the right are suggested when editing/redlining guide and project specifications on paper.

Step 2: Scan the section’s contents completely.

Become aware of anything that requires further examination.

Step 3: Edit Part 2 - Products.

By now, the specifier knows most of the requirements pertaining to the products, materials, and accessories that are required for the project. Describe them using short, direct sentences or phrases.

Step 4: Edit Part 3 - Execution.

Describe how the products are to be integrated into the project by using design and performance methods.

Step 5: Edit Part 1 - General.

Ensure that the requirements don’t void or conflict with Division 1 requirements.

Step 6: Edit the indexes of the specifications and drawings.

Assure that both are correct. See examples in appendix A, beginning on page 41.

Step 7: Compare the marked-up version to the final draft.

Ensure that all changes were made. Omissions are easily overlooked if the proofreader has nothing to compare against. If you typed the edits yourself, try to get someone else to proofread the final draft.
Appendix A  SAMPLES

Uniform Contract Format  (services BLM guide specification)

* * * * * * *
REMOVE THIS OUTLINE GUIDE BEFORE PLACING
THE SPECIFICATION SECTION IN THE CONTRACT
* * * * * * *

OUTLINE GUIDE

DIVISION 17: SUPPLIES AND SERVICES

AERIAL APPLICATION OF PELLETED HERBICIDE SPECIFICATION NO. 17221

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

NOTICE TO DESIGNER!!

1. DO NOT USE WITH DIVISION 1 through 16 SPECIFICATIONS
2. Check with procurement personnel for wording
   on the following:
   Section F - Work Progress
   Section G - Project Inspection
   Section H - Work Hours
   Section J - Drawings

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

USE:  Eradication of vegetative cover using pelleted herbicide, aircraft, and
      other equipment.

DRAWING DATA REQUIRED:  Location and detail drawings as needed.

REQUIRED SPEC MODIFICATIONS:

GENERAL NOTES

1. Whenever entire articles, paragraphs or subparagraphs are not
   applicable, the articles, paragraphs or subparagraphs should be deleted;
   when necessary, reletter or renumber articles, paragraphs or
   subparagraphs.
2. THIS GUIDE IS NOT INTENDED AS A SUBSTITUTE FOR READING THE ENTIRE
   SECTION.

TECHNICAL NOTES

1. C.1.2:  Insert county and state where work will be performed.
2. C.1.4:  Insert applicable EPA Regulations.
3. C.1.5:  Delete when Government-furnished herbicide is used.
4. C.1.5:  Insert number of copies of certification required. Normally 3
      copies are required. Distribution after review is normally 1 copy to
      the CO, 1 copy to the Contractor, and 1 copy to the project file.
5. C.1.6:  Describe how work limits are to be identified.
6. C.1.10: Select applicable word and complete number of flagpersons
      required.
7. C.3.1:  Delete when Government-furnished herbicide is used.
8. C.3.2.b: Select type of aircraft to be used and complete aircraft
      speed.
9. C.4.0:  Delete when herbicide is Contractor-furnished.
10. C.4.1.a: Insert location where Government-furnished herbicide can be
     obtained.
11. C.4.1.b: Insert hours Government-furnished herbicide can be obtained.
12. C.4.1.c: Insert location where Government-furnished herbicide is to be
     returned to.
13. C.4.2:  Delete when Contractor-furnished herbicide is used.
14. C.5.1:  Select applicable wind speed.
15. C.5.4:  Insert rate of application.
16. E.4.1:  Complete method of measurement, (i.e. field traverse, aerial
      photograph - dot grid, or map).
17. E.5.0:  Select applicable Pay Items. Do not change Pay Item number.
      When Government-furnished property is specified for Pay Items, the
      letter suffix GF will be added after the parenthesis of the item number.
C.1.0 GENERAL:

C.1.1 Description of Work: Application of pelleted herbicide with [Contractor- furnished] [and] [Government-furnished] property using aircraft at the locations shown on the drawings.

C.1.2 Location: Work under this Contract is located in [_______] County, [__________]. The work locations are shown on the drawings.

C.1.3 Access to the Work: [_______________________________________________.]

C.1.4 References: a. [___________________________.]

C.1.5 Certification: Furnish [___] copies of written certification from the supplier of the Contractor-furnished herbicide that it conforms to the requirements of this specification.

C.1.6 Work Limits: The Government will define with [_____] the outer perimeter of areas to be treated and areas within such perimeter which are to be excluded from pellet application.

C.1.7 Landing Facilities: [The Contractor shall obtain required landing facilities.] [Landing facilities are located as shown on the drawings.] The Contractor assumes full responsibility and liability for airstrips or landing areas used.

C.1.8 Environmental Conditions: Aircraft will not be allowed to release pellets or turn within [_____] ft of agricultural crops or residences having plants susceptible to damage from herbicide when using fixed-wing aircraft capable of applying pellets at speed of [_____] mph or less.

C.1.9 Flagpersons: Shall be furnished by the [Government] [Contractor]. [___] flagpersons shall be simultaneously visible at the beginning of each application run and at least [___] flagperson visible throughout the run for the pilots.

C.1.10 Flagging Materials and Equipment: Shall be furnished by the [Government].] [Contractor.]

C.2.0 DEFINITIONS: None

C.3.0 CONTRACTOR-FURNISHED ITEMS:

C.3.1 Herbicide:
   a. Delivery: Deliver Contractor-furnished herbicide in original, unopened containers.
   b. Herbicide: Shall conform to the following: [_______].

C.3.2 Aircraft:
   a. General: The Contractor shall furnish aircraft to apply pelleted herbicide to the designated areas in the time specified.
   b. Type: Aircraft used shall be [unrestricted] [unrestricted, except capable of applying pellets at [___] mph minimum] [fixed wing only capable of applying pellets at [___] mph maximum] [helicopter only].

C.3.3 Pellet Dispersing Equipment: Aircraft shall be equipped to carry pellets with a distribution mechanism complete with release, shutoff, and spreading device which can be calibrated for application of pellets at the prescribed rate and uniform pattern.

C.3.4 Special Aircraft Requirements: [___________.]

C.3.5 Pilots: Shall be furnished by the Contractor and meet certification requirements of Federal Aviation Regulations for this type of work.

C.3.6 Ground Crew: Shall be furnished by the Contractor.
C.4.0 GOVERNMENT-FURNISHED PROPERTY:

C.4.1 Delivery, Storage, and Handling:
   a. Location: The Government-furnished herbicide will be provided by the Bureau of Land Management [__________].
   b. Time: Property will be available Monday through Friday, [_____] except on holidays.
   c. Return of Unused Property: Return unused material to [______].
   d. Loading/Off Loading/Transporting Property: The Contractor shall be responsible for providing the necessary material-handling equipment to load/off load materials. [The Contractor shall load and transport [materials] [equipment] to worksites.]

C.4.2 Equipment to be Furnished by the Government:

<table>
<thead>
<tr>
<th>Description</th>
<th>Equipment</th>
<th>Quantity Unit</th>
</tr>
</thead>
</table>

C.4.3 Transportation of Herbicide: The Contractor shall load and transport Government-furnished herbicide from the location specified to the worksite and between sites. Upon completion of the work or termination of the Contract, unused herbicide shall be returned by the Contractor to the location specified.

C.5.0 SPECIFIC TASKS:

C.5.1 Wind Conditions: Aerial application of pellets shall not be done when the wind is not at a constant velocity or exceeds [_____] mph.

C.5.2 Flight Paths: Flagpersons shall insure straight and regular paths of flight. Irregular paths of flight will result in immediate stoppage of work. Corrective action shall be taken immediately by the Contractor to insure evenly spaced, straight, and regular flight paths and complete coverage of areas included in the spraying job.

C.5.3 Coverage: The entire surface within the designated boundaries of the project area shall receive uniform coverage with the herbicide except for areas excluded by the Government. Areas excluded from the herbicide operation within the designated boundaries, will not be included in the acreage computed for payment.

C.5.4 Rate of Application: Herbicide shall be distributed at the rate of [_____] lb of active ingredient per acre.

C.5.5 swath Width: Shall not exceed [_____] ft.

C.5.6 Flight Height: Shall be low enough to obtain proper distribution and uniform coverage of herbicide. Pellet application shall not be made during a rainstorm, snow, or when the ground is frozen. Aircraft shall be operated according to Federal Aviation Regulations.

C.5.7 Flight Strips: Shall be patterned and flown to secure a uniform distribution of herbicide. Such distribution shall not vary more than [_____] % above or below the average distribution of herbicide per acre.

C.5.8 Tests for Uniformity: The Contracting Officer will make tests to determine uniformity of herbicide application.

C.5.9 Tests for Rate of Application: Rate of herbicide application will be determined from test flights and strip tests made prior to commencement of pelleting operations to establish setting of the distribution mechanism.

END OF SECTION
This contract incorporates the following clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

52.246-04 Inspection of Services - Fixed-Price (Apr 1984)

E.2.0 INSPECTION:

The Contracting Officer will make periodic inspections as a basis for payments and recommendations for adjustments in work quality. The Contractor is encouraged to observe inspections while they are being made and have a supervisor on site to confer with the Contracting Officer.

E.3.0 ACCEPTANCE:

Work performed according to the specifications and Part III will be considered acceptable for payment purposes.

E.4.0 MEASUREMENT OF PAYMENT:

E.4.1 Units: Application of pelleted herbicide will be measured and paid for by the number of acres treated to the nearest whole acre.

E.4.2 Measurement: The determination of the acreage of completed work will be made from [__________]. Area measurements required under this Contract will be measured on a horizontal plane.

E.4.3 Remeasurement: Remeasurement of the acreage under this Contract will be made upon the written request of the Contractor. The request for remeasurement must be made in writing within 10 calendar days after completion of the work. If remeasurement indicates a difference of not more than 5 percent from the original measurement, the Contractor shall pay the actual cost of the remeasurement. Payments will be based on the second measurement where the difference between measurement is more than 5 percent. Where the difference is less than 5 percent, the results of the first measurement will be used.

E.5.0 BASIS OF PAYMENT:

E.5.1 Payment: Prices and payment will be full compensation for the work described in this section. Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>17201(1)</td>
<td>Chaining Brush</td>
</tr>
<tr>
<td>17201(2)</td>
<td>Chaining Trees</td>
</tr>
<tr>
<td>17201(3)</td>
<td>Chaining Brush and Trees</td>
</tr>
<tr>
<td>17201(4)</td>
<td>Chaining to Cover Seed</td>
</tr>
</tbody>
</table>

END OF SECTION
SUPPLEMENTAL SPECIFICATIONS
FOR THE CONSTRUCTION OF

Xxxxx TRAIL BRIDGE

Description of Work

The work to be done under this contract includes all labor, supervision, transportation, equipment, tools, supplies, and materials necessary to construct a trail bridge over Xxxxx at the Xxxxxx Recreation Site in the Xxxxx District, Xxxxxxx. The work includes the construction of two reinforced concrete abutments, purchase and erection of a xx-foot long prefabricated structural steel superstructure, and related site work.

Applicable Standard Specifications

The General Requirements (Division 100) and applicable sections of Divisions 150 through 700 of the Federal Highway Administration's "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects -- FP-92, 1992" of the U.S. Department of Transportation, Federal Highway Administration apply to this project as modified by these Supplemental Specifications and by the Special Contract Requirements and Contract Clauses contained in the contract. Unless otherwise noted, all reference headings in these supplemental specifications refer to divisions, sections, subsections, articles or paragraphs of the Standard Specifications, FP-92, bearing like headings.

DIVISION 100 GENERAL REQUIREMENTS

Section 101. -- TERMS, FORMAT, AND DEFINITIONS

101.02 Specifications Format. Modify the first sentence of the third paragraph as follows:

Division 150 consists of general contract requirements that may be applicable to an individual project.

101.04 Definitions. Delete the definitions for the following terms:

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award</td>
<td>Contract</td>
</tr>
<tr>
<td>Bid</td>
<td>Contracting Officer (CO)</td>
</tr>
<tr>
<td>Bid Bond</td>
<td>Contract Modification</td>
</tr>
<tr>
<td>Bidder</td>
<td>Contractor</td>
</tr>
<tr>
<td>Bid Forms</td>
<td>Contract Time</td>
</tr>
<tr>
<td>Bid Guarantee</td>
<td>Drawings</td>
</tr>
<tr>
<td>Bid Schedule</td>
<td>Government</td>
</tr>
<tr>
<td>Calendar Day</td>
<td>Notice to Proceed</td>
</tr>
</tbody>
</table>

Modify the following definition as follows:

Special Contract Requirements -- Delete this definition and substitute the following:

Supplemental Specifications -- Modifications to the standard specifications applicable to an individual project.

Section 102. -- BID, AWARD, AND EXECUTION OF CONTRACT

Delete this section in its entirety.
APPENDIX A - SAMPLES

Section 103. -- SCOPE OF WORK

103.02 Disputes. **Delete in its entirety.**

103.03 Value Engineering. **Delete in its entirety.**

103.04 Contractor Records. **Delete in its entirety.**

Section 104. -- CONTROL OF WORK

104.01 Authority of the Contracting Officer (CO). **Delete in its entirety.**

104.02 Methods and Equipment. **Delete in its entirety.**

104.03 Specifications and Drawings.

(a) General. **Delete the text and substitute the following:**

Shop drawings for any part of the permanent work shall include supplemental design sheets or similar data that the Contractor is required to submit. Shop drawings shall include, but not be limited to, design computations, stress sheets, fabrication plans, assembly plans, anchor bolt layouts, shop detail drawings, erection plans, equipment lists, material certifications, manufacturer's descriptive literature, and any other information specifically required elsewhere in the specifications that shall be reviewed and approved by the Contracting Officer before any work involving these plans is performed.

Six copies of shop drawings shall be submitted through the Contracting Officer for review by the Government for the following items:

1. Superstructure design certification.
2. Prefabricated structural steel superstructure.
3. Substructure design information.
4. Erection procedure.
5. Reinforcing steel.
6. Concrete mix design and material certifications.
7. Hardware and material lists.

The shop drawing submittals shall be complete and in sufficient detail to permit review of all aspects of the Contractor’s proposals. The shop drawings shall be submitted in such manner that clear and legible copies can be made. Each submittal item shall be identified with the contract number, project name, and the applicable reference to the Contract documents. Unless otherwise approved by the Contracting Officer, shop drawings shall be one of the following sizes: 8½ x 11 inches, 11 x 17 inches, or 22 x 34 inches and copies of manufacturer’s literature shall not be reduced in size.
Sample Index for Project Specifications

INDEX of SPECIFICATIONS FOR XXXXXXX BUILDING

DIVISION 1 - GENERAL REQUIREMENTS
    Section 01010 - Summary of Work
    Section 01300 - Submittals
    Section 01365 - Certificates of Conformance

DIVISION 2 - SITWORK
    Section 02111 - Clearing and Grubbing
    Section 02201 - Watering
    Section 02651 - Testing of Piping Systems

DIVISION 3 CONCRETE
    Section 03310 - Structural Concrete

DIVISION 4 MASONRY (not used)

DIVISION 5 METALS
    Section 05120 - Structural Steel

DIVISION 6 WOOD
    Section 06115 - Sheathing
    Section 06125 - Wood Decking

DIVISION 7 THERMAL AND MOISTURE PROTECTION
    Section 07211 - Batt Insulation
    Section 07920 - Sealants and Caulking

DIVISION 8 DOORS AND WINDOWS
    Section 08111 - Standard Steel Doors and Frames
    Section 08610 - Wood Windows
    Section 08708 - Finish Hardware

DIVISION 9 FINISHES
    Section 09260 - Gypsum Board Systems
    Section 09915 - Exterior and Interior Painting

DIVISION 10 SPECIALTIES
    Section 10165 - Plastic Laminate Toilet Compartments

DIVISION 11 EQUIPMENT (not used)

DIVISION 12 FURNISHINGS (not used)

DIVISION 13 SPECIAL CONSTRUCTION (not used)

DIVISION 14 CONVEYING SYSTEMS (not used)

DIVISION 15 MECHANICAL
    Section 15010 - Basic Mechanical Requirements
    Section 15441 - Plumbing Fixtures and Trim
    Section 15890 - Ductwork

DIVISION 16 ELECTRICAL
    Section 16010 - Basic Electrical Requirements
    Section 16120 - Wires And Cables
    Section 16510 - Interior Luminaires
# Sample Index for Drawings

INDEX of DRAWINGS FOR XXXXXX BUILDING

<table>
<thead>
<tr>
<th>Sheet Number</th>
<th>Subsheet Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>Title Sheet</td>
</tr>
<tr>
<td>2.</td>
<td>C1</td>
<td>Site Plan &amp; Profile</td>
</tr>
<tr>
<td>3.</td>
<td>C2</td>
<td>Grading Plan</td>
</tr>
<tr>
<td>4.</td>
<td>C3</td>
<td>Utility Plan</td>
</tr>
<tr>
<td>5.</td>
<td>C4</td>
<td>Site Details</td>
</tr>
<tr>
<td>6.</td>
<td>C5</td>
<td>Civil Details</td>
</tr>
<tr>
<td>7.</td>
<td>L1</td>
<td>Landscape Treatment Plan</td>
</tr>
<tr>
<td>8.</td>
<td>L2</td>
<td>Landscape Irrigation Plan</td>
</tr>
<tr>
<td>9.</td>
<td>A1</td>
<td>Floor Plan and Details</td>
</tr>
<tr>
<td>10.</td>
<td>A2</td>
<td>Building Elevations</td>
</tr>
<tr>
<td>11.</td>
<td>A3</td>
<td>Building Sections</td>
</tr>
<tr>
<td>12.</td>
<td>A4</td>
<td>Roof Plan and Details</td>
</tr>
<tr>
<td>13.</td>
<td>A5</td>
<td>Window &amp; Door Schedules and Details</td>
</tr>
<tr>
<td>14.</td>
<td>A6</td>
<td>Window &amp; Door Installation Details</td>
</tr>
<tr>
<td>15.</td>
<td>A7</td>
<td>Details</td>
</tr>
<tr>
<td>16.</td>
<td>S1</td>
<td>Foundation Plan</td>
</tr>
<tr>
<td>17.</td>
<td>S2</td>
<td>Floor Joist Plan</td>
</tr>
<tr>
<td>18.</td>
<td>S3</td>
<td>Truss Details</td>
</tr>
<tr>
<td>19.</td>
<td>S4</td>
<td>Column Details</td>
</tr>
<tr>
<td>20.</td>
<td>S5</td>
<td>Foundation Wall Sections &amp; Details</td>
</tr>
<tr>
<td>21.</td>
<td>M1</td>
<td>HVAC Plan and Sections</td>
</tr>
<tr>
<td>22.</td>
<td>M2</td>
<td>Plumbing, Piping, and Crawl Space Ventilation</td>
</tr>
<tr>
<td>23.</td>
<td>E1</td>
<td>Power Plans</td>
</tr>
<tr>
<td>24.</td>
<td>E2</td>
<td>Lighting Plans</td>
</tr>
</tbody>
</table>
Appendix B  REGULATION RESOURCES

Acquisition

The FAR, DIAR, and BLM Manual Section 1510 (pertaining to acquisition), are numerically cross-referenced. A specifier/designer can find the policy/rule on any acquisition topic by knowing the cross-referencing method. The matrix below demonstrates this cross-referencing method. The matrix example shows 48 CFR, Part 10, "Specifications, Standards, and Other Purchase Descriptions," Sections .002 through .004. The full text of the FAR, DIAR and BLM Manual references cited in the matrix below can be read in appendix D, beginning on page 52.

<table>
<thead>
<tr>
<th>FAR Part 10</th>
<th>DIAR Part 1410</th>
<th>BLM Manual Section 1510</th>
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<tr>
<td>10.002 Policy</td>
<td>The regulations of the FAR are sufficient and need no further guidance.</td>
<td>1510-10.002 Policy</td>
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<td>1410.004-70 Brand name products or equal.</td>
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These regulations can be found in the paperback CFR volumes published annually by the Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington DC 20402-9328. Contract Specialists have access to them online.

These regulations can be found in red BLM Manual 3-ring binders, usually available at State Offices.
Manual Sections

The BLM Manual contains guidance on construction specifications and recreation planning. Manual Sections 9100 through 9188 consist of topics relating to engineering, planning, construction, etc., of BLM facilities and structures. Manual Sections 8300 through 8359 cover recreation management. Listed below are relevant BLM Manual Sections that specifiers/designers should know:

8300 RECREATION MANAGEMENT
  8310 Recreation Inventory
  8320 Planning for Recreation Resources
  8322 Recreation Area Management Plans
  8323 Recreation Project Planning
  8342 Designation of Areas and Trails

9100 ENGINEERING
  9101 Facility Planning
  9102 Facility Design
  9103 Facility Construction
  9104 Facility Maintenance
  9110 Transportation Facilities
  9112 Bridges and Major Culverts
  9113 Roads
  9114 Trails

  9130 Signs and Posters
    9131 Transportation Signs
    9132 Operational Signs

1510 Handbooks

Several of the BLM 1510 Handbooks about acquisition are intended to be used by non-procurement personnel. It is worth the time to read them. They are described below:

H-1510-1 Purchasing

Intended for purchasing personnel and contracting officers. It contains instructions for obtaining materials, supplies, and services by (1) placement of orders with established Government sources and (2) direct buys under $25,000 (small purchase).
H-1510-2 Contracting (General)

Written for non-procurement personnel to understand the procurement processes that are common to:

- Construction
- Services
- Supplies and Equipment
- Studies, Analyses, Inventories, and Surveys
- Automatic Data Processing, Telecommunications

H-1510-3 Contracting for Construction

Written for non-procurement personnel involved in the contracting process. It is designed to be used in conjunction with H-1510-2 (General Contracting). This Handbook defines roles and responsibilities of Government personnel for contracts in these specific areas:

- Construction Services
- Architect and Engineering Services
- Utilities Services (except telecommunications)

H-1510-4 Contracting for Services

Written for non-procurement personnel. This handbook will assist in understanding service procurement. It is designed to be used in conjunction with H-1510-2 (General Contracting).

H-1510-5 Contracting for Supplies and Equipment

Written for non-procurement personnel, and designed to be used in conjunction with H-1510-2 (General Contracting), for purchasing expendable supplies, capitalized equipment, and noncapitalized equipment, excluding ADP and telecommunications equipment. Purchases exceeding the small purchase threshold are covered.

H-1510-6 Contracting for Studies, Analyses, Inventories, and Surveys

Written for non-procurement personnel. This handbook covers the acquisition of studies, analyses, inventories, and similar actions for contracts over $25,000 acquired by negotiations. Typical acquisitions in this area are:

- Archaeological Inventories and Data Recovery
- Soil and Vegetative Inventories
- Wildlife Habitat Inventories
- Threatened and Endangered Species
- Geological and Mineral Inventories
- Hydrological Inventories
- Air Quality Analyses
- Cadastral Surveys
- Environmental Impact Studies
- Horse Adoption Centers
## Appendix C  CONSTRUCTION OUTLINE

The "Construction Outline" below organizes BLM Guide Specification titles into the major categories of construction listed below.

1. Siteprep
2. Structure
3. Thermal Envelope
4. Systems
5. Finish Work
6. (outside) Site Improvements
7. (inside) Furnishings
8. Administrative

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2. **STRUCTURE** continued:

- 10605 Wire Mesh Partitions
- 10605 Wire Mesh Partitions
- 10675 Metal Storage Shelving
- 10810 Toilet Accessories
- 10814 Vault Toilet Accessories
- 10881 Floor Scale
- 13038 Cold Storage Rooms
- 13121 Pre-Engineered Buildings (Rigid Frame, Beam and Column, Self-Framing)
- 13126 Pre-Engineered Buildings (Column and Included Beam Frame)

3. **THERMAL ENVELOPE**

- 07110 Sheet Membrane Waterproofing-Cold Region
- 07160 Bituminous Dampproofing
- 07211 Batt Insulation
- 07212 Building Board Insulation
- 07214 Loose Fill Insulation
- 07216 Perimeter and Under-Slab Insulation (Plastic or Glass Foam)
- 07217 Slab Insulation Under Built-in Cooler
- 07223 Insulation Under Elastic Sheet Roofing (Expanded Perlite)
- 07311 Asphalt Shingles
- 07312 Fiberglass and Asphalt Shingles
- 07317 Wood Shingles
- 07318 Wood Shakes
- 07413 Preformed Roof Panels (Corrugated Fiberglass)
- 07513 Built-Up Bituminous Roofing (Gravel Surfaced Slope, 1/2-Inch to 3-Inch Slope/Ft)
- 07514 Built-Up Bituminous Roofing (Smooth Nailable, Slope up to min 1/4 Inch/Ft, max 1/2 Inch/Ft)
- 07532 Elastomeric Sheet Roofing (Loose Laid Ballasted)
- 07533 Elastomeric Sheet Roofing (Mechanically Attached)
- 07563 Mobile Trailer Re-roofing
- 07610 Sheet Metal Roofing (Interlocking Standing Seam)
- 07620 Sheet Metal Flashing and Trim
- 07631 Gutters and Downspouts
- 07723 Gravity Ventilators
- 07814 Plastic Skylights (Sandwich Panel)
- 07815 Plastic Skylights (Double Dome)
- 07816 Plastic Skylights
- 07920 Sealants and Caulking
- 08305 Access Doors
- 08331 Overhead Coiling Doors
- 08360 Sectional Overhead Doors
- 08410 Aluminum Entrances and Storefronts
- 08520 Aluminum Windows
- 08612 Plastic Clad Wood Windows
- 08715 Weatherstripping and Seals
- 08815 Insulating Glass
4. SYSTEMS

02851 Testing of Piping Systems
02665 Water Systems
02685 Gas Distribution Systems
07270 Firestopping
10274 Snap-on Stringer Access Floor System
10522 Fire Extinguishers, Cabinets, and Accessories
11216 Water Well Pumps
11261 Chlorination Equipment
13217 Hydropneumatic Pressure Tank
13314 Water Meters
14241 Hydraulic Elevators (Passenger)
14609 Fixed/Mobile Hoists
15010 Basic Mechanical Requirements
15068 Plastic Pipe and Fittings
15070 Welded Steel Pipe and Fittings
15071 Galvanized Steel Pipe and Fittings
15072 Cast Iron Soil Pipe and Fittings
15073 Vitrified Clay Pipe and Fittings
15074 Perforated Clay Pipe
15100 Valves
15140 Supports and Anchors
15152 Air Compressors
15160 Pumps
15170 Motors
15245 Vibration Isolation
15260 Piping Insulation
15290 Ductwork Insulation
15330 Wet Pipe Sprinkler Systems
15365 Halogen Agent Extinguishing Systems
15375 Standpipe and Hose Systems
15401 Plumbing Systems
15403 Roof Drainage
15441 Plumbing Fixtures and Trim
15456 Water Filtration Devices
15457 Water Heaters
15483 Fuel Oil Handling System
15484 Fuel Oil Systems
15487 Liquefied Petroleum Gas Systems
15489 Natural Gas Systems
15495 Roof Drainage Piping System
15510 Hydronic Piping
15516 Air Separator and Compression Tank
15520 Steam and Steam Condensate Piping
15525 Steam and Steam Condensate Specialties
15530 Refrigerant Piping
15535 Refrigerant Specialties
15540 HVAC Pumps
15541 UPS Equipment Room Ventilation System
15555 Boilers
15610 Furnaces
15611 Oil-Fired Furnace
15640 Hot Water Heating System
15683 Reciprocating Water Chiller
15713 Fluid Coolers
15751 Steam Heating Systems
15752 Liquid Heating System
15753 Tube Radiant Heater Systems
15755 Heat Exchangers
15771 Air Source Heat Pumps
15781 Computer Room Air Conditioning Units
15783 Packaged Terminal Air Conditioner Units
15784 Unit Air Conditioners
15785 Packaged Rooftop Heating/Cooling Units
15786 Split System Air Conditioner
15790 Air Coils
15811 Humidity Control
15840 Terminal Heat Transfer Units
15845 Energy Recovery Units
15854 Air Handling Units
15855 Air Handling Units with Coils
15871 Power Ventilation System
15872 Exhaust Fans
15890 Ductwork
15911 Dampers
15916 Fire/Smoke Dampers
15917 Volume Dampers
15940 Air Outlets and Inlets
15975 Electric Temperature Control Systems
15993 Air Systems, Testing, Adjusting and Balancing
16010 Basic Electrical Requirements
16112 Conduits
16117 Formed Sheet Metal Raceways
16120 Wires and Cables
16130 Boxes
16140 Wiring Devices
16160 Cabinets and Enclosures
16190 Supporting Devices
16195 Electrical Identification
16405 Electrical Service
16435 Converters
16440 Disconnect Switches
16450 Secondary Grounding
16451 System Grounding
16460 Transformers
16470 Panelboards
16476 Circuit Breakers
16477 Fuses
16481 Motor Starters
16482 Motor Circuits
16510 Interior Luminaires
16520 Exterior Luminaires
16610 Uninterruptible Power Supply Systems
16640 Cathodic Protection
16641 Cathodic Protection for URD Cables
16670 Lightning Protection Systems
16671 Lightning Arresters
16720 Alarm and Detection Systems
16771 Sound Systems
16774 Transient Voltage Surge Suppressors
16866 Electrical Convector Heaters
16867 Electrical Baseboard Heaters
16870 Electric Unit Heaters
16880 Electric Radiant Heaters
16881 Electric Duct Heaters
16911 Control Devices
16912 Pump Controls
16913 Temperature Controls
16915 Lighting Control Systems
16938 Control Panels
## Appendix C - CONSTRUCTION OUTLINE

### 5. FINISH WORK

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01410 Testing Laboratory Services
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01506 Temporary Construction Facilities
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6.302-1 Only one responsible source and no other supplies or services will satisfy agency requirements.

(a) Authority.

(1) Citations: 10 U.S.C. 2304(c)(1) or 41 U.S.C. 253(c)(1).

(2) When the supplies or services required by the agency are available from only one responsible source, or, for DoD, NASA and the Coast Guard, from only one or a limited number of responsible sources, and no other type of supplies or services will satisfy agency requirements, full and open competition need not be provided for.

(i) Supplies or services may be considered to be available from only one source if the source has submitted an unsolicited research proposal that:

(A) Demonstrates a unique and innovative concept, or, demonstrates a unique capability of the source to provide the particular research services proposed;

(B) Offers a concept or services not otherwise available to the Government; and

(C) Does not resemble the substance of a pending competitive acquisition. (See 10 U.S.C. 2304(d)(1)(A) and 41 U.S.C. 253(d)(1)(A).)

(ii) Supplies may be deemed to be available only from the original source in the case of a follow-on contract for the continued development or production of a major system or highly specialized equipment, including major components thereof, when it is likely that award to any other source would result in (A) substantial duplication of cost to the Government that is not expected to be recovered through competition, or (B) unacceptable delays in fulfilling the agency’s requirements. (See 10 U.S.C. 2304(d)(1)(B) or 41 U.S.C. 253(d)(1)(B).)

(iii) For DoD, NASA, and the Coast Guard, services may be deemed to be available only from the original source in the case of follow-on contracts for the continued provision of highly specialized services when it is likely that award to any other source would result in (A) substantial duplication of cost to the Government that is not expected to be recovered through competition, or (B) unacceptable delays in fulfilling the agency’s requirements. (See 10 U.S.C. 2304(d)(1)(B).)

(b) Application. This authority shall be used, if appropriate, in preference to the authority in 6.302-7; it shall not be used when any of the other circumstances is applicable. Use of this authority may be appropriate in situations such as the following (these examples are not intended to be all-inclusive and do not constitute authority in and of themselves):

(1) When there is a reasonable basis to conclude that the agency’s minimum needs can only be satisfied by (i) unique supplies or services available from only one source or only one supplier with unique capabilities; or, (ii) for DoD, NASA, and the Coast Guard, unique supplies or services available from only one or a limited number of sources or from only one or a limited number of suppliers with unique capabilities.

(2) The existence of limited rights in data, patent rights, copyrights, or secret processes; the control of basic raw material; or similar circumstances, makes the supplies and services available from only one source (however, the mere existence of such rights or circumstances does not in and of itself justify the use of these authorities) (See part 27).

(3) When acquiring electric power or energy, gas (natural or manufactured), water, or other utility services, circumstances may dictate that only one supplier can furnish the service (see 8.304-5(d)); or when the contemplated contract is for construction of a part of a utility system and the utility company itself is the only source available to work on the system.

(4) When the agency head has determined in accordance with the agency’s standardization program that only specified makes and models of technical equipment and parts will satisfy the agency’s needs for additional units or replacement items, and only one source is available.

(c) Application for brand name descriptions. An acquisition that uses a brand name description or other purchase descriptions to specify a particular brand name, product, or feature of a product, peculiar to one manufacturer does not provide for full and open competition regardless of the number of sources solicited. It shall be justified and approved in
accordance with FAR 6.303 and 6.304. The justification should indicate that the use of such description in the acquisition is essential to the Government’s requirements, thereby precluding consideration of a product manufactured by another company. (Brand-name or equal descriptions, and other purchase descriptions that permit prospective contractors to offer products other than those specifically referenced by brand name, provide for full and open competition and do not requirejustifications and approvals to support their use.)

(d) Limitations. (1) Contracts awarded using this authority shall be supported by the written justifications and approvals described in 6.303 and 6.304.

(2) For contracts awarded using this authority, the notices required by 5.201 shall have been published and any bids and proposals must have been considered. (See 15.402(g.).)

FAR Part 10

10.000 Scope of part.

This part prescribes policies and procedures for using specifications, standards, and other purchase descriptions, and related considerations of acquisition streamlining (see 7.101).

10.001 Definitions.

"Brand-name description" means a purchase description that identifies a product by its brand name and model or part number or other appropriate nomenclature by which the product is offered for sale.

"Commercial item description (CID)" means an indexed, simplified product description managed by the General Services Administration that describes, by functional, performance, or essential physical requirements, the available, acceptable commercial products that will satisfy the Government’s needs.

"Department of Defense Index of Specifications and Standards (DoDISS)" means the Department of Defense (DoD) publication that lists unclassified Federal and military specifications and standards, related standardization documents, and voluntary standards approved for use by DoD.

"Federal specification or standard" means a specification or standard issued or controlled by the General Services Administration (GSA) and listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions.

"General Services Administration Index of Federal Specifications, Standards and Commercial Item Descriptions" means the GSA publication that lists Federal specifications and standards, including supplements, that have been implemented for use by all Federal agencies.

"Market research" means the process used for collecting and analyzing information about the entire market available to satisfy the minimum agency needs to arrive at the most suitable approach to acquiring, distributing, and supporting supplies and services.

"Product description" is the generic term for documents used for acquisition and management purposes, such as specifications, standards, voluntary standards, CID’s, or purchase descriptions.

"Purchase description" means a description of the essential physical characteristics and functions required to meet the Government’s minimum needs.

"Responsible agency" means the agency controlling the index in which a particular specification or standard is listed.

"Specification" means a description of the technical requirements for a material, product, or service that includes the criteria for determining whether these requirements are met. Specifications shall state only the Government’s actual minimum needs and be designed to promote full and open competition, with due regard to the nature of the supplies or services to be acquired.
"Standard" means a document that establishes engineering and technical limitations and applications of items, materials, processes, methods, designs, and engineering practices. It includes any related criteria deemed essential to achieve the highest practical degree of uniformity in materials or products, or interchangeability of parts used in those products. Standards may be used in specifications, invitations for bids, proposals, and contracts.

"Voluntary standard" means a standard established by a private sector body and available for public use. The term does not include private standards of individual firms. For further guidance, see OMB Circular No. A-119, Federal Participation in Development and Use of Voluntary Standards.

10.002 Policy.

(a) In fulfilling requirements of 10 U.S.C. 2305(a)(1) and 41 U.S.C. 253a(a) regarding the preparation for acquisition of supplies and services:

(1) Agencies shall specify needs in a manner designed to promote full and open competition (see part 6) for acquisitions.

(2) Agencies shall develop specifications and purchase descriptions using market research in a manner designed to promote full and open competition, with due regard to the nature of the supplies or services to be acquired.

(3) In solicitations, agencies shall include specifications and purchase descriptions that:

(i) Permit full and open competition; and

(ii) Include restrictive provisions or conditions only to the extent necessary to satisfy the minimum needs of the agency or as authorized by law.

(4) Agencies shall prepare specifications and purchase descriptions which reflect the minimum needs of the agency and the market available to satisfy such needs. Specifications and purchase descriptions may be stated in terms of:

(i) Function, so that a variety of products or services may qualify;

(ii) Performance, including specifications of the range of acceptable characteristics or of the minimum acceptable standards; or

(iii) Design requirements.

(b) Acquisition policies and procedures shall require descriptions of agency requirements, whenever practicable, to be stated in terms of functions to be performed or performance required.

(c) The Metric Conversion Act of 1975, as amended by the Omnibus Trade and Competitiveness Act of 1988 (15 U.S.C. 205a, et. seq.), designates the metric system of measurement as the preferred system of weights and measures for United States trade and commerce. It also requires that each Federal agency, by a date certain and to the extent economically feasible by the end of fiscal year 1992, use the metric system of measurement in its procurement, except to the extent that such use is impracticable or is likely to cause significant inefficiencies or loss of markets to United States firms. Requiring activities are responsible for establishing guidance implementing this policy in formulating their requirements for acquisitions.

(d) To the maximum practicable extent, unless inconsistent with applicable law or incapable of meeting the Government's needs, agencies shall use the following types of product descriptions, which are listed in descending order of preference:

(1) Voluntary standards;

(2) CID's in the acquisition of commercial or commercial-type products;

(3) Government product descriptions stated predominantly in terms of functions to be performed or performance required;
(4) Government product descriptions, stated predominantly in terms of material, finish, schematics, tolerances, operating characteristics, component parts, or other design requirements.

(2) The above order of preference shall apply unless it—

(i) Is inconsistent with requirements of law; or

(ii) Does not meet the Government’s needs.

(e) Requiring agencies, for programs which they have designated as subject to acquisition streamlining, should apply specifications, standards, and related documents initially for guidance only, making final decisions on the application and tailoring of these documents as a product of the design and development process. Requiring agencies should not dictate detailed design solutions prematurely. The objective of acquisition streamlining is to reduce the time and cost, and improve the quality of systems acquisitions, by ensuring that contracts contain only those necessary specifications, standards, and related documents which have been tailored for application at the most appropriate time in the system acquisition cycle. To the extent practicable, Contractors should be involved in recommending application and tailoring of such specifications, standards, and related documents in one phase for proposed application to the succeeding phase of the acquisition cycle.

10.003 Responsibilities.

(a) The Administrator of GSA, under separate authority and regulations, prepares, maintains, and controls specifications and standards covering products commonly used by Government agencies, and lists those descriptions in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions.

(b) The Secretary of Defense, under separate authority and regulations, prepares, maintains, and controls military specifications, standards, and other documents unique to DoD and lists those product descriptions in the DoDISS.

10.004 Selecting specifications or descriptions for use.

(a) (1) Plans, drawings, specifications, standards, or purchase descriptions for acquisitions shall state only the Government’s actual minimum needs and describe the supplies and/or services in a manner designed to promote full and open competition.

(2) Items to be acquired shall be described (i) by citing the applicable specifications and standards or (ii) by a description containing the necessary requirements.

(3) Specifications and standards shall be selectively applied and tailored in their application.

(i) Selective application is the process of reviewing and selecting from available specifications, standards, and related documents those which have application to a particular acquisition.

(ii) Tailoring is the process by which individual sections, paragraphs or sentences of the selected specifications, standards, and related document are reviewed and modified so that each one selected states only the Government’s minimum requirements. Such tailoring need not be made a part of the basic specification or standard but will vary with each application, dependent upon the nature of the acquisition.

(b) (1) When authorized by 10.006(a), or when no applicable specification exists, agencies may use a purchase description, subject to pertinent restrictions on repetitive use. An adequate purchase description should set forth the essential physical and functional characteristics of the materials or services required. As many of the following characteristics as are necessary to express the Government’s minimum requirements should be used in preparing purchase descriptions:

(i) Common nomenclature.

(ii) Kind of material; i.e., type, grade, alternatives, etc.

(iii) Electrical data, if any.
(iv) Dimensions, size, or capacity.
(v) Principles of operation.
(vi) Restrictive environmental conditions.
(vii) Intended use, including -
   (A) Location within an assembly, and
   (B) Essential operating condition.
(viii) Equipment with which the item is to be used.
(ix) Other pertinent information that further describes the item, material, or service required.

(2) Purchase descriptions shall not be written so as to specify a particular brandname, product, or a feature of a product, peculiar to one manufacturer, thereby precluding consideration of a product manufactured by another company, unless --

(i) The particular brandname, product, or feature is essential to the Government's requirements, and that other companies' similar products, or products lacking the particular feature, would not meet the minimum requirements for the item; and

(ii) The authority to contract without providing for full and open competition is supported by the required justifications and approvals (see 6.302-1).

(3) Generally, the minimum acceptable purchase description is the identification of a requirement by use of brand name followed by the words or equal. This technique should be used only when an adequate specification or more detailed description cannot feasibly be made available by means other than inspection and analysis in time for the acquisition under consideration. Agencies should provide detailed guidance and necessary clauses for use by contracting activities when using this technique.

(4) Purchase descriptions of services should outline to the greatest degree practicable the specific services the Contractor is expected to perform.

(c) Except as provided in (b) above, when considering the acquisition of products sold or traded to the general public in the course of normal business operations at prices based on established catalog or market prices, agencies should consult part 11 and implementing agency regulations for guidance on acquiring commercial products.

(d) Foreign purchase descriptions. Unless precluded by law, products that are acquired overseas may be acquired by using purchase descriptions prepared by foreign governments or foreign industry associations, if the description will satisfy the agency's actual minimum requirements.

(e) Packing, packaging, and marking requirements. In accordance with agency regulations, contracting offices shall require adequate packaging and marking of supplies to prevent deterioration and damage during shipping, handling, and storage. In acquiring commercial products, contracting offices should consult part 11 and implementing agency regulations.

10.005 Management of purchase descriptions.

(a) Responsible agencies shall ensure compliance with the policies prescribed in this part for all specifications and standards listed in their indexes.

(b) When a responsible agency determines, in accordance with its established procedures and criteria, that a listed specification or standard does not meet a particular minimum need of the Government, applicable amendments, revisions, or new descriptions shall be prepared and used. (See 10.007 with regard to deviations.)

(c) Recommendations for changes in specifications and standards listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions should be submitted to the General Services Administration, Federal
Supply Service, Item Management Division, Washington, DC 20406. Recommendations for changes in military specifications and standards and other standardization documents listed in the DoDISS should be submitted to the cognizant preparing activity.

10.006 Using product descriptions.

(a) Unless otherwise authorized by law or approved under 10.007(a), product descriptions listed in the Index of Federal Specifications, Standards and Commercial Item Descriptions are mandatory for use by all agencies, and product descriptions listed in the DoDISS are mandatory for use by all agencies, and product descriptions listed in the DoDISS are mandatory for use by the DoD, if acquiring supplies or services covered by such product descriptions, except when the acquisition is -

1. Required under an unusual and compelling urgency, and using the indexed product description would delay obtaining the requirement;

2. Conducted in accordance with the procedures in part 13;

3. For products acquired and used overseas;

4. For items, excluding military clothing, acquired for authorized resale;

5. For construction or new installations of equipment, where nationally recognized industry or technical source specifications and standards are available; or

6. For a product or a service for which an adequate and appropriate voluntary standard is known to exist but has not yet been adopted and listed in the indexes referenced in this section.

(b) Military specifications and standards are mandatory for use by the Department of Defense (DoD), as are voluntary standards adopted by DoD and listed in the DoDISS, except when any of the exceptions in (a)(1) above apply.

(b) Commercial exception. (1) In addition to the exceptions given in paragraph (a) above, agencies should consider stating their needs in a purchase description, when appropriate under part 11 and implementing agency regulations, even though there is an indexed specification.

2. The agency responsible for a specification may designate it as one for which this exception cannot be used, if the agency head or a designee determines this to be necessary.

10.007 Deviations.

When the exceptions in 10.006 above do not apply and an existing specification does not meet an agency's minimum needs, agencies may authorize deviations as follows:

(a) Each agency taking deviations shall establish procedures whereby a designated official having substantial contracting responsibility shall be responsible for ensuring that -

1. Federal specifications are used, and requirements for exceptions and deviations are complied with;

2. Justification for exceptions and deviations are subject to competent review before authorization, and that such justifications can be fully substantiated if post audit is required;

3. Major or repeated deviations are not taken except as prescribed in (b) below; and

4. Notification of deviation or recommendation for change in the specification is sent promptly in duplicate to the General Services Administration (FCM), Washington, DC 20406. (A statement of the deviations with a justification and, where applicable, recommendation for revision or amendment of the specification shall be included. A notification is required for major deviations such as those that will result in the introduction of a new item of supply as evidenced by the development of a new item identification, or when a deviation is taken repeatedly.)
(b) Deviations taken and reported by the agency in accordance with (a) above may not be continued, except under the following conditions:

(1) When an agency submits notification of major or repeated deviations that have been taken but makes no recommendation for change in the specification, GSA will notify the agency as to whether such deviations may be continued in subsequent contracting. In cases where continued deviations are not approved and the agency contracting has progressed to a point where it would be impracticable to amend or cancel the action, such action may be completed, but the deviation shall not be continued by the agency in subsequent contracts.

(2) When an agency has recommended changing the specification consistent with the deviations it has taken and reported, those deviations may be continued until such time as the recommended change is incorporated in the specification. When coordination with Federal agencies and industry does not result in acceptance of the change, such deviations shall not be continued by the agency in subsequent contracts.

(c) Deviations from military specifications shall be in accordance with any applicable DoD regulations.

10.008 Identification and availability of specifications.

(a) Solicitations citing specifications listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, DoDISS, or other agency index shall identify each specification's approval date and the dates of any applicable amendments and revisions. Contracting offices will not normally furnish these cited specifications with the solicitation, except when:

(1) The product being acquired will be so complex that the specification must be furnished with the solicitation to enable prospective Contractors to make a competent initial evaluation of the solicitation;

(2) In the judgment of the contracting officer, it would be impracticable for prospective Contractors to obtain the specifications in reasonable time to respond to the solicitation; or

(3) A prospective Contractor who has not previously bid on the product requests a copy of the specification.

(b) Solicitations shall not contain general identification references such as the issue in effect on the date of the solicitation.

(c) Solicitations citing voluntary standards shall advise offerors to obtain the standards from the publisher.

(d) Contracting offices shall clearly identify in the solicitation specifications and any other pertinent documents not listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions or DoDISS and normally furnish them with the solicitation.

(e) When specifications refer to other specifications, such references shall (1) be restricted to documents, or appropriate portions of documents, that shall apply in the acquisition; (2) cite the extent of their applicability; (3) not conflict with other specifications and provisions of the solicitation; and (4) identify all applicable first tier references.

(f) Contracting offices shall furnish with the solicitation any brand name or equal description used.


10.009 User satisfaction.

(a) Agencies shall encourage users to communicate with acquisition organizations on:

(1) The adequacy of specifications to communicate the user's minimum needs;

(2) Product capability;

(3) Product failures and deficiencies; and
(4) Suggestions for corrective actions.

(b) Whenever practicable, the agency may provide affected industry an opportunity to comment on the critiques.

(c) Acquisition organizations shall consider user critiques and take appropriate action on bona fide complaints and suggestions.

10.010 Acquiring used or reconditioned material, former Government surplus property, and residual inventory.

(a) Generally, all contractually furnished supplies and their components, including former Government property, will be new, including recycled (see subpart 23.4 for policy on recovered materials). However, agencies may acquire used or reconditioned material, former Government surplus property, or residual inventory conforming to the solicitation’s requirements, if the contracting officer determines that it is acceptable. When such a determination is made, the solicitation shall clearly identify the supplies or their components that need not be new, along with the necessary details on their acceptability. Offerors wishing to provide such used or reconditioned material, former Government surplus property, or residual inventory shall do so in accordance with the clause at 52.210-5, New Material, or the provision at 52.210-6, Listing of Used or Reconditioned Material, Residual Inventory, and Former Government Surplus Property, and the clause at 52.210-7, Used or Reconditioned Material, Residual Inventory, and Former Government Surplus Property, as appropriate.

(b) Contracting officers shall consider the following when determining whether used or reconditioned materials, former Government surplus property, or residual inventory are acceptable:

(1) Safety of persons or property.

(2) Total cost to the Government (including maintenance, inspection, testing, and useful life).

(3) Performance requirements.

(4) Availability and cost of new materials and components.

(c) With regard to former Government surplus property, the contracting officer shall ensure that the prices paid for such items are reasonable considering overall cost savings to the Government. When a contract calls for material to be furnished at cost, the allowable charge for former Government surplus property shall not exceed the cost at which the Contractor acquired the property.

10.011 Solicitation provisions and contract clauses.

(a) The contracting officer shall insert the provision at 52.210-1, Availability of Specifications Listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, in solicitations that (i) are issued by civilian agency contracting offices and (ii) cite specifications listed in the Index that are not furnished with the solicitation.

(b) The contracting officer shall insert the provision at 52.210-2, Availability of Specifications Listed in the DoD Index of Specifications and Standards (DoDISS), in solicitations that (i) are issued by DoD contracting offices and (ii) cite specifications listed in the DoDISS that are not furnished with the solicitation.

(c) The contracting officer shall insert a provision substantially the same as the provision at 52.210-3, Availability of Specifications Not Listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, in solicitations that cite specifications that are not listed in the Index and are not furnished with the solicitation, but may be obtained from a designated source.

(d) The contracting officer shall insert a provision substantially the same as the provision at 52.210-4, Availability for Examination of Specifications Not Listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, in solicitations that cite specifications that are not listed in the Index and are available for examination at a specified location.
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(e) (1) The contracting officer shall insert the clause at 52.210-5, New Material, in solicitations and contracts for supplies, unless, in the judgment of the contracting officer, the clause would serve no useful purpose.

(2) The contracting officer may insert the clause in solicitations and contracts for services that may involve the incidental furnishing of parts.

(f) (1) The contracting officer shall insert the provision at 52.210-6, Listing of Used or Reconditioned Material, Residual Inventory, and Former Government Surplus Property, in solicitations for supplies, unless, in the judgment of the contracting officer, the provision would serve no useful purpose.

(2) The contracting officer may insert the provision in solicitations for services that may involve the incidental furnishing of parts.

(g) (1) The contracting officer shall insert the clause at 52.210-7, Used or Reconditioned Material, Residual Inventory, and Former Government Surplus Property, in solicitations and contracts for supplies, unless, in the judgment of the contracting officer, the clause would serve no useful purpose.

(2) The contracting officer may insert the clause in solicitations and contracts for services that may involve the incidental furnishing of parts.

14.201-1 Uniform contract format.

(a) Contracting officers shall prepare invitations for bids and contracts using the uniform contract format outlined in Table 14-1 to the maximum practicable extent. The use of the format facilitates preparation of the solicitation and contract as well as reference to, and use of, those documents by bidders and contractors. It need not be used for acquisition of the following:

(1) Construction (see part 36).

(2) Shipbuilding (including design, construction, and conversion), ship overhaul, and ship repair.

(3) Subsistence items.

(4) Supplies or services requiring special contract forms prescribed elsewhere in this regulation that are inconsistent with the uniform contract format.

(5) Firm-fixed-price or fixed-price with economic price adjustment acquisitions that use the simplified contract format (see 14.201-9).

(b) Information suitable for inclusion in invitations for bids under the uniform contract format shall also be included in invitations for bids not subject to that format if applicable.

(c) Solicitations to which the uniform contract format applies shall include Parts I, II, III, and IV. If any section of the uniform contract format does not apply, the contracting officer should mark that section in the solicitation. Upon award, the contracting officer shall not physically include Part IV in the resulting contract, but shall retain it in the contract file. Award by acceptance of a bid on the award portion of Standard Form 33, Solicitation Offer and Award (SF 33), Standard Form 26, Award/Contract (SF 26), or Standard Form 1447, Solicitation/Contract (SF 1447), incorporates Section K, Representations, certifications, and other statements of bidders, in the resultant contract even though not physically attached.

Table 14-1 Uniform Contract Format

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F  Deliveries or performance
G  Contract administration data
H  Special contract requirements

PART II - Contract Clauses

I  Contract clauses

PART III - List of Documents, Exhibits, and Other Attachments

J  List of documents, exhibits, and other attachments

PART IV - Representations and Instructions

K  Representations, certifications, and other statements of bidders
L  Instructions, conditions, and notices to bidders
M  Evaluation factors for award

14.201-2 Part I - The Schedule.

The contracting officer shall prepare the Schedule as follows:

(a) Section A, Solicitation/contract form.

(1) Prepare the invitation for bids on SF 33, or the SF 1447, unless otherwise permitted by this regulation. The SF 33 is the first page of the solicitation and includes Section A of the uniform contract format. When the SF 1447 is used as the solicitation document, the information in subdivisions (a)(2)(i) and (a)(2)(iv) of this subsection shall be inserted in block 9 of the SF 1447.

(2) When the SF 33 or SF 1447 is not used, include the following on the first page of the invitation for bids:

(i) Name, address, and location of issuing activity, including room and building where bids must be submitted.

(ii) Invitation for bids number.

(iii) Date of issuance.

(iv) Time specified for receipt of bids.

(v) Number of pages.

(vi) Requisition or other purchase authority.

(vii) Requirement for bidder to provide its name and complete address, including street, city, county, State, and ZIP code.

(viii) A statement that bidders should include in the bid the address to which payment should be mailed, if that address is different from that of the bidder.

(b) Section B, Supplies or services and prices. Include a brief description of the supplies or services; e.g., item number, national stock number/part number if applicable, title or name identifying the supplies or services, and quantities (see part 10, Specifications, Standards, and Other Product Descriptions). The SF 33 and SF 1447 may be supplemented as necessary by the Optional Form 336 (OF 336), Continuation Sheet (53.302-336).

(c) Section C, Description/specifications. Include any description or specifications needed in addition to Section B to permit full and open competition (see part 10, Specifications, Standards, and Other Product Descriptions).

(d) Section D, Packaging and marking. Provide packaging, packing, preservation, and marking requirements, if any (see 10.004(e)).

(e) Section E, Inspection and acceptance. Include inspection, acceptance, quality assurance, and reliability requirements (see part 46, Quality Assurance).
(f) Section F, Deliveries or performance. Specify the requirements for time, place, and method of delivery or performance (see part 12, Contract Delivery or Performance).

(g) Section G, Contract administration data. Include any required accounting and appropriation data and any required contract administration information or instructions other than those on the solicitation form.

(h) Section H, Special contract requirements. Include a clear statement of any special contract requirements that are not included in Section I, Contract clauses, or in other sections of the uniform contract format.

14.201-3 Part II - Contract clauses.

Section I, Contract clauses. The contracting officer shall include in this section the clauses required by law or by this regulation and any additional clauses expected to apply to any resulting contract, if these clauses are not required to be included in any other section of the uniform contract format.

14.201-4 Part III - Documents, exhibits, and other attachments.

Section J, List of documents, exhibits, and other attachments. The contracting officer shall list the title, date, and number of pages for each attached document.

14.201-5 Part IV - Representations and instructions.

The contracting officer shall prepare the representations and instructions as follows:

(a) Section K, Representations, certifications, and other statements of bidders. Include in this section those solicitation provisions that require representations, certifications, or the submission of other information by bidders.

(b) Section L, Instructions, conditions, and notices to bidders. Insert in this section solicitation provisions and other information and instructions not required elsewhere to guide bidders. Invitations shall include the time and place for bid openings, and shall advise bidders that bids will be evaluated without discussions (see 52.214-10 and, for construction contracts, 52.214-19).

(c) Section M, Evaluation factors for award. Identify the price-related factors other than the bid price that will be considered in evaluating bids and awarding the contract. (See 14.201-8.)

15.406-1 Uniform contract format.

(a) Contracting officers shall prepare solicitations and resulting contracts using the uniform contract format outlined in Table 15-1. The format facilitates preparation of the solicitation and contract, as well as reference to and use of those documents by offerors and contractors. The uniform contract format is optional for acquisitions outside the United States, its possessions, its territories, and Puerto Rico. It does not apply to the following:

(1) Basic agreements (see 16.702).

(2) Construction and architect-engineer contracts (see part 36).

(3) Shipbuilding (including design, construction, and conversion), ship overhauls, and ship repairs.

(4) Subsistence.

(5) Contracts requiring special contract forms prescribed elsewhere in this regulation that are inconsistent with the uniform contract format.

(6) Letter Request for Proposals (see 15.402).

(7) Contracts exempted by the agency head or a designee.

(8) Contracts utilizing the simplified contract format (see 15.416).
(b) Solicitations to which the uniform contract format applies shall include Parts I, II, III, and IV (see 15.406-2 through 15.406-5). Upon award, contracting officers shall not physically include Part IV in the resulting contract, but shall retain in their contract file Section K, Representations, certifications, and other statements of offerors, as completed by the contractor. Award by acceptance of a proposal on the award portion of SF 33, SF 26, or SF 1447 incorporates Section K by reference in the resultant contract. Contracts requiring a bilateral document shall incorporate Section K by reference in the signed contract.

Table 15-1 Uniform Contract Format

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The contracting officer shall prepare the contract Schedule as follows:

(a) Section A, Solicitation/contract form.

1. Prepare RFP's on Standard Form 33, Solicitation, Offer and Award (53.301-33) or Standard Form 1447, Solicitation/Contract (53.301-1447), unless otherwise permitted by this regulation. The first page of the SF 33 or SF 1447 is the first page of the solicitation. The first page of the SF 33 includes section A of the uniform contract format. When the SF 1447 is used as the solicitation document, ensure the information in subdivisions (a)(3)(i) and (a)(3)(iv) of this subsection are inserted in block 9 of the SF 1447.

2. Prepare RFQ’s on Standard Form 18, Request for Quotations (53.301-18). Agencies may overprint the SF 18 to provide for Section A of the uniform contract format.

3. When other than SF 33, SF 18, or SF 1447 is used, include the following on the first page of the solicitation:

(i) Name, address, and location of issuing activity, including room and building where proposals or quotations must be submitted.

(ii) Solicitation number.

(iii) Date of issuance.

(iv) Closing date and time.

(v) Number of pages.
(vi) Requisition or other purchase authority.

(vii) Brief description of item or service.

(viii) Requirement for the offeror or quoter to provide its name and complete address, including street, city, county, State, and Zip Code.

(ix) A statement that offerors or quoters should include in the offer or quotation the address to which payment should be mailed, if that address is different from that shown for the offeror or quoter.

(b) Section B, Supplies or services and prices/costs. Include on the second page of the solicitation brief descriptions of the supplies or services; e.g., item number, national stock number/part number if applicable, nouns, and quantities. (This includes incidental deliverables such as manuals and reports.) The second page may be supplemented as necessary by Optional Form 336, Continuation Sheet (53.302-336).

(c) Section C, Description/specifications/work statement. Include any description or specifications needed in addition to Section B (see part 10, Specifications, Standards, and Other Product Descriptions).

(d) Section D, Packaging and marking. Provide packaging, packing, preservation, and marking requirements, if any (see 10.004(e)).

(e) Section E, Inspection and acceptance. Include inspection, acceptance, quality assurance, and reliability requirements (see part 46, Quality Assurance).

(f) Section F, Deliveries or performance. Specify the requirements for time, place, and method of delivery or performance (see part 12, Contract Delivery or Performance, and 47.301-1).

(g) Section G, Contract administration data. Include any required accounting and appropriation data and any required contract administration information or instructions other than those on the solicitation form.

(h) Section H, Special contract requirements. Include a clear statement of any special contract requirements that are not included in Section I, Contract clauses, or in other sections of the uniform contract format.

15.406-3 Part II - Contract clauses.

(a) Section I, Contract clauses. The contracting officer shall include in this section the clauses required by law or by this regulation and any additional clauses expected to be included in any resulting contract, if these clauses are not required in any other section of the uniform contract format.

(b) When contracting by negotiation, the contracting officer shall insert the clause at 52.215-33, Order of Precedence, in solicitations and contracts to which the uniform contract format applies.

(c) Any alteration pertaining to the contract shall be included in this section as part of the clause at 52.252-4, Alterations in Contract. See part 52, Solicitation Provisions and Contract Clauses.

15.406-4 Part III - List of Documents, exhibits, and other attachments.

Section J, List of attachments. The contracting officer shall list the title, date, and number of pages for each attached document, exhibit, and other attachment.

15.406-5 Part IV - Representations and Instructions.

The contracting officer shall prepare the representations and instructions as follows:

(a) Section K, Representations, Certifications, and Other Statements of Offerors or Quoters. Include in this section those solicitation provisions that require representations, certifications, or the submission of other information by offerors or quoters.

(b) Section L, Instructions, Conditions, and Notices to Offerors or Quoters. Insert in this section solicitation provisions and other information and instructions not required elsewhere to guide offerors or quoters in preparing proposals or quotations. Any alteration pertaining to the solicitation shall be included in this section as part of the provision at 52.252-3, Alterations in Solicitation. Prospective offerors or quoters may be instructed to submit technical proposals in severable parts to meet agency requirements. The severable parts should provide for
separation of cost or pricing data, past performance data and, when needed, technical data. The instructions may specify further organization of proposal or quotation parts, such as (1) administrative, (2) management, (3) technical, (4) past performance, and (5) cost or pricing data.

(c) Section M, Evaluation factors for award. Identify all factors, including cost or price, cost or price-related factors, and non-cost or non-price-related factors, and any significant subfactors that will be considered in awarding the contract (see 15.805(e) and (f) and the multiple award provision at 52.215-34) and state the relative importance the Government places on those evaluation factors and subfactors.

DIAR

Part 1410 -- SPECIFICATIONS, STANDARDS AND OTHER PURCHASE DESCRIPTIONS

1410.004 Selecting specifications or descriptions for use.

(a) In accordance with FAR 10.004(b)(2), purchase descriptions shall not specify a product, or specific feature of a product, peculiar to a manufacturer unless it is determined in writing by the office initiating the purchase request that the product, or specific product feature, is essential to the Government's requirements and other similar products will not meet their requirements. This determination shall be in writing and shall accompany the purchase requisition.

(b) A "brand name or equal" purchase description shall be used only under the conditions listed in FAR 10.004(b)(3) and in accordance with the policies and procedures in 1410.004-70.

(c) Bureaus and offices shall be responsible for requiring adequate packing, packaging, and marking requirements when acquiring supplies in accordance with FAR 10.004(e).

1410.004-70 Brand Name Products or equal.

(a) Limitations on use. The identification of a requirement in a purchase description by use of one or more brand name products followed by the words "or equal" shall be used only under the conditions listed in FAR 10.004(b)(3). A "brand name product" means a current commercial product of a manufacturer described by its brand name, make, model number, catalog designation or other description by which it is regularly offered for sale to the public in the commercial market place.

(b) Solicitation requirements. (1) "Brand name or equal" purchase descriptions in solicitations shall identify salient characteristics of the product (see subparagraph (b)(2) of this 1410.004-70) and contain the following information to describe the specific item--

(i) Identification of the item by generic descriptions;
(ii) Make, model number, catalog designation (or other description), and identification of commercial catalog where it is listed; and
(iii) Name of manufacturer, producer, or distributor of the item and complete address.

(2) In accordance with the policy in FAR 10.002, whenever a "brand name or equal" purchase description is used, bidders/offerors shall be given the opportunity to offer products equal to the brand name if those products (including modifications thereto) satisfy the minimum needs of the Government. Therefore, all salient characteristics of the brand name or equal product which are determined by the office initiating the purchase request to be essential to the Government's minimum needs shall be separately identified under the heading of "salient characteristics" and included in the purchase description contained in the solicitation so the bidder/offeror understands the information to be submitted when offering an "equal" product for evaluation. In addition, the following statement shall be included at the end of each "brand name or equal" description in a solicitation for a bidder/offeror to identify its "equal" product:
"Bidders/offerors (select one) proposing to furnish an "equal" product, in accordance with the "Brand Name or Equal" provision of this solicitation, shall insert the following description for the product.

Bidding on/proposing:
Manufacturer's Name:
Address:
Product Name (if any):
Product make, model, or catalog description:

Bidders/offerors shall also be responsible for submitting all additional information on the above product necessary for the Government to determine whether the product offered meets the salient characteristics of the "brand name" as listed in the solicitation.

(3) In addition, the provision at 14552.210-70, Brand Name or Equal--Department of the Interior, shall be inserted by the contracting officer in solicitations where a "brand name or equal" purchase description is used.

1410.007 Deviations.

(a) Heads of contracting activities are authorized to approve deviations and exceptions to specifications or standards listed in the Index of Federal Specifications and Standards when the exceptions listed under FAR 10.006 do not apply. The Director, Office of Acquisition and Property Management shall be formally notified for each deviation or exception approved.

(b) Heads of contracting activities are responsible for accomplishing the action required under FAR 10.007.

BLM Manual Section 1510

1510-10.000 Specifications.

1510-10.001 Reference. Generally, specifications and standards must be included by reference in invitations for bids and request for proposals. The reference must fully identify the specification or standard by type (e.g., Fed. Spec., Int. Fed. Spec., MIL, etc.) and number, and must include amendments, supplements, and revisions, if any. The date should also be specification or standard beyond question.

1510-10.003 Availability. GSA Business Service Centers stock most Federal, Interim Federal, and GSA Specifications, and Federal Standards, for issue in limited quantities to bidders without charge. When an invitation refers to a specification or standard not normally available from GSA, the Contracting Officer must arrange to make copies available to bidders. The invitation or request must state where copies or required specifications and standards can be obtained. For a list of GSA Business Service Centers, contact: General Services Administration, Federal Supply Service, Washington DC 20405.

1510-10.004 Purchase Descriptions.

1510-10.004-1 Determination of Need. The Government's general procurement policy is to secure items and services which meet its minimum needs. Prepare specifications and purchase descriptions carefully to reflect only those needs. Avoid unnecessary extras which may increase the cost. Follow this procedure whether selecting items from established sources or evaluating competitive proposals on the open market.
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This second edition of the WRITER'S GUIDE was improved because of responses from the readers. Your evaluations, opinions, or complaints about the guide are invited so that future versions can also be improved. When responding, please make a copy of this response form, answer the following questions and write comments, and then send the form to us by FAX or mail. Always keep the original to copy for future comments or needs, as necessary.

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