

GUIDE TO DEVELOPING CSI TECHNICAL DOCUMENTS

■ APPENDIX PP

INTRODUCTION

CSI Technical Documents are intended to be standards for the construction industry in addition to advancing knowledge for creating and sustaining the built environment. As such, they must be developed with participation from the industry sectors affected by the document. Broad-based participation increases the number of stakeholders and a consensus approach to conflict resolution, promotes commitment to the document's use, and leads to creation of the best possible document.

This guide provides a uniform approach for developing and updating CSI's Technical Documents and should be used by committees, task teams, individuals and other entities participating in the development or update of CSI Technical Documents. It describes the basic responsibilities and offers recommended procedures for ensuring successful completion of the document.

CSI Technical Documents include documents of a technical nature, developed or copyrighted by CSI either solely or jointly with another entity. As of July 2009, they include the *Project Resource Manual*, *MasterFormat*[™], *SectionFormat*[™]/*PageFormat*[™], *UniFormat*[™], the *Uniform Drawing System* of the U.S. National CAD Standard®, *GreenFormat*[™] and *OmniClass*[™].

To be useful, CSI's Technical Documents need to be consistent with each other, based on good, current industry practice, and acceptable to the intended users. As a component of a Technical Document addressing standards, an application guide should be included to assist in explaining appropriate use of the standard.

In an effort to continue the advancement of the industry, CSI may enter into strategic agreements with other organizations to develop and maintain industry technical documents. Provisions of those agreements will dictate the responsibilities of the parties, and may override the recommendations of this guide.

ROLES

Development and maintenance of CSI's Technical Documents requires involvement from multiple parties. The following provides a brief description of the participation required from various entities.

Technical Committee and Liaisons

The Technical Committee provides oversight, guidance, and quality assurance for the content of all CSI technical programs and publications. The Technical Committee assists the Institute in identifying trends that affect the primary practice areas of CSI members along with corresponding needs for new products, programs and services to meet those needs.

The CSI Administrative References indicate that the Technical Committee will review drafts of technical material prepared and offer comments. These comments will include only comments that represent the consensus opinion of the Technical Committee. Technical Committee members are free to submit personal opinion unsupported by the Technical Committee through the document commentary process. Through this review process the Technical Committee should not dictate the direction of the material, but assure consistency with the *Project Resource Manual* and the over-arching intent of CSI's technical principles.

A member of the Technical Committee will be assigned to act as a liaison between the Committee and the writer or task team. This liaison is to maintain frequent contact and participate in the work of the task team, thus providing support in keeping focus on the work and the charges.

Task Team, Writers

Task Teams will be appointed by the President for the development or update of a CSI Technical Document. Charges, established by the Board for the task team, may be for new development of a CSI Technical Document or program, periodic updates to an existing document or program or for ongoing tasks related to the maintenance of documents and programs.

The task team or writers are to establish the document content, develop an application guide if appropriate, submit document drafts for public and stakeholder review, and ultimately produce a document in response to the charges from the Board.

For purposes of this guide, the term “writer” is used to identify an individual or group charged with developing or updating a CSI Technical Document by the Institute.

CSI Staff

Similar to the Technical Committee liaison, a CSI technical staff member will be assigned to assist the writer. The purpose of the staff member is to provide support in accomplishing the assigned charges and coordinate production and publication.

Related CSI Committees

Because of the nature of CSI Technical Documents, input and coordination with related CSI Committees, especially Education and Certification, should be incorporated into the review and development process. When other Committees are involved, it is imperative that the writer’s scope and deliverables are clearly understood by both parties from the outset of the task.

Other Organizations

As part of CSI alliance agreements and other cooperative directives, CSI may assist in the development of technical documents produced jointly with other organizations. The provisions of these agreements will drive CSI’s involvement and participation and as such should, if possible, have provisions for CSI Technical Committee review of any documents produced under such an arrangement. The writer involved with the task should have a working understanding of the agreement between the organizations as it relates to the technical documents that are being developed or updated, and the responsibilities of each organization with respect to the effort.

DEVELOPMENTAL PROCESS

Action Plan

Prior to commencing document development, the writer or task team chair in conjunction with CSI staff will develop an action plan. The action plan should be reviewed by and coordinated with the Technical Committee. The action plan should define the critical path schedule for completion of the assignment. Include specific time periods for:

- Development
- Review by stakeholders and general public
- Response to commentary
- Revision

- Additional drafts for commentary and review, with response and revision
- Final (90%) manuscript review by the Technical Committee
- Final editing and review
- Document production for publication

Document Development

The charges should identify the purpose of a CSI Technical Document or the need for a revision or update. The writer needs to further define that purpose by clarifying the reasons for the development or update and the specific objectives that the CSI Technical Document is to achieve. Writers should also refer to CSI's *Guiding Technical Principles*.

CSI Technical Documents are tools designed to be used by the industry, thus the writer needs to be familiar with the audience to whom they are addressing the document. People read and use technical documents for different reasons, and readers have varying levels of technical expertise. To be effective, technical writing must target the range of the intended audience.

Keeping in mind the purpose and audience, develop an outline of the CSI Technical Document. The outline should serve as the roadmap and organizational structure of a new document, and though an update of an existing CSI Technical Document may be minimal or extensive, an outline of the Document will assist in evaluating the strengths and weaknesses of the organization and content of the existing CSI Technical Document. In the case of updating existing CSI Technical Documents, changes in industry practice and technology should be incorporated into the update.

Within the document itself, a statement of objectives should be included, these statements alert the reader what is to be gained by reading further.

Incorporation of information and details into the outline should provide an initial rough working version of the CSI Technical Document. The working version should develop through a process of refinement by the writer until the concepts clearly express the intent and direction of the document to meet the designated charges. This draft is released to the public and stakeholders for review and comment.

Conciseness has a special value in technical documents. A concise document conveys only the needed material and does not attempt to include everything that could be relevant to the subject, but merely everything that is relevant to the communication of the task at hand.

At the level of the whole document, conciseness is helped most by focus. Preparing a clear introduction and developing a detailed outline are two strategies that assist in controlling document length and scope. Graphics are powerful aids to conciseness because they cut down on the amount of prose necessary to describe objects and processes, summarize data, and demonstrate relationships. Conciseness requires careful revising. Look for ways of cutting useless words, sentences, and paragraphs from the document.

Consideration of the layout of the document should come into play to assist the user. Layout can include visual cues to enhance readability and use of subject headings to help guide the user through the documents and communicate the organization of the document as a whole.

Look for ways to improve the coherence of the document. Coherence provides the user a navigable path through the document. Writers should promote coherence by making the material logically and stylistically consistent, and by organizing and expressing their ideas in specific patterns. Efforts to emphasize the relationships among the elements of a document strengthen its impact. Coherence can dramatically improve the reader's ability to understand the material by promoting its flow or readability.

COMMENTARY PROCESS

A critical component in developing consensus-based documents is the commentary process. This process should include opportunities for receiving commentary on document drafts from key stakeholders, the general public, and CSI's Technical Committee.

Concurrent with document development, key stakeholders and interest groups should be identified to assure meaningful input from the industry. If they are not represented on the development team, stakeholders should be contacted and encouraged to participate in the review and commentary process. Their commitment to participating will provide buy-in that is necessary for development of a consensus based document.

Based on the action plan a document draft should be released for review and comment by the public and stakeholders. Resolution of commentary should focus on aligning the document content with the perceived direction the industry is taking, as expressed by stakeholder comments, and continued alignment with CSI's *Technical Guiding Principles* and Institute policy. The writer may request that stakeholders or CSI Technical Committee review an initial draft prior to release for public commentary, or stakeholder commentary may be concurrent with public commentary. Public review periods should be a minimum of 45 days in length to encourage commentary from a broad base of participants and users.

At the close of each commentary period, the writer should evaluate the comments and determine a course of action to resolve each of them. The writer is not required to make changes to the document in response to commentary that are deemed to not be in the best interest of the industry, CSI, or the document. Any changes made to an existing document should be supported by sound reasoning that shows how the benefits of those changes are at least equal to their potential costs. Comments and their resolution should be documented, including the reasoning supporting any such resolution, especially in the case of significant disagreement between a comment and the resolution selected by the writer. In editorial matters that are internal to the document, the decision should be left to the discretion of the writer. In matters of content that affect other CSI Technical Documents, content of the new document and other affected CSI Technical Documents should be assessed for industry and practice appropriateness, including maintaining consistency with CSI Technical Guiding Principles.

Document modification and additional commentary periods should follow as needed by the document and set out in the document development schedule and action plan. The action plan established at the beginning of document development should also be evaluated to assess the progress of the writer and modified as appropriate dependent on the commentary received from the stakeholders, CSI Technical Committee and the general public. It will be at the writer's discretion how many additional commentary periods are appropriate for a specific document. Following the resolution of the public commentary periods, Technical Committee will conduct a final review of the manuscript and inform the writer of any areas where the manuscript may be in conflict with CSI *Technical Guiding Principles* or other CSI Technical Documents. The writer and Technical Committee will work together to favorably resolve any needed changes to the document. Technical Committee and its members are of course welcome to provide commentary during public review periods on earlier drafts should they elect to do so.

Once a final document is completed, and the method of publication has been established, the CSI staff member will assist in preparing the document for publication and distribution.

APPLICATION GUIDE

An application guide should be included to help promote proper use, discourage improper use, and improve consistency of documents based on the principles of CSI's Technical Documents. The application guide explains the intent of the Technical Document and how it is to be used. The writer, being in the best position to understand the purpose of the Technical Document and its proper use, should prepare this application guide.

All CSI technical documents are copyrighted, but many are provided for the use of the industry without charge. In addition to an application guide developed by the writer, CSI staff will develop licensure policies appropriate to the many types of possible use of any CSI Technical Document and to protect CSI interests.

There should be a clear and logical connection between the purpose for creating a document and its recommended use. The application guide explains and makes recommendations regarding how the document is to be used. There may be instances where permissible use extends beyond the document's purpose. In some situations, the writer may identify uses for the document that are not recommended. Obviously, an exhaustive list is not possible, but if non-recommended uses are identified this information should be included, along with a definitive explanation of why the use is not recommended.

In developing the application guide it is inevitable that different uses will be characterized by such terms as "may be", "recommended", "should be", "discouraged", etc. In order to facilitate the coordination of various CSI Technical Documents and the comprehension of application guides, the following definitions are provided for use by writers.

must be	The indicated use is required; a proactive response is required (<i>CSI Technical Documents are voluntary standards, and the use of compulsory language that implies enforcement and sanctions, such as "must be", is discouraged.</i>)
may be	Use is at the user's discretion.
recommended, should be	CSI has positive preference for the indicated use, but implementation is at the discretion of the user.
discouraged, not recommended, should not be	CSI has a negative preference for the indicated use, but implementation is at the discretion of the user.

Application Guide Content

The application guide should include discussion of the following:

- Thorough explanation of the purpose of the document.
- Discussion of proper, recommended, and discouraged uses of the document.
- Contact information where comments and questions regarding the document should be sent. Ideally, an internet contact address, either website or email, should also be included.
- Historical information about the Technical Document and its development, including previous editions.
- Acknowledgement of the participants in the development of the document.
- A statement regarding CSI's support of previous versions of the document. When possible, indicate when that support will be terminated.
- Glossaries and other information that would facilitate use of the Technical Document.
- Any fundamental principles, misuse of which would violate the intent of the document.
- Specifics' regarding latitude the user has in modifying the document for fair use, as an instrument of service, for commercial gain, or for other applications.
- Conditions and limitations on republication of the document, or parts thereof, including requirements for obtaining copyright release from CSI.
- Criteria for ensuring translated excerpts will not alter the intent of the English version.
- Other information about the document deemed relevant by the writer.