



**AMERICAN SOCIETY
OF PROFESSIONAL
ESTIMATORS**

THE TECHNICAL PAPER GUIDELINES

The Technical Paper provides a way to measure the applicants' capabilities, experience, and knowledge, in a specific discipline, and their ability to communicate that knowledge in a clear and concise, professional document.

Revised August 2018

Introduction: The Technical Paper

The Technical Paper is one of the steps toward achieving the ASPE Certified Professional Estimator (CPE) designation. The Technical Paper assignment requires the Candidate to research and fully develop a topic, with the intent to teach an audience (**How To Estimate The Cost Of ...**). The Candidate employs organizational and technical skills and displays them through the composition of the Technical Paper. Today, society places a high value in the ability to successfully communicate ideas, opinions, methods and information in written form. These communication skills are essential for illustrating our worth in the profession of construction estimating.

Note: Your Certification Team will communicate via email. Please ensure that you are receiving emails that originate from Certification@ASPEnational.org.

Technical Paper Basic Requirements

- Technical Paper Topics are approved by the Certification Committee
 - Technical Papers not written on the Certification Committee approved-topic may receive a *Fail* when submitted.
- Main body of the Paper must meet the minimum requirement of **2,500 words**
 - Paper to be single-sided, double-spaced, 1-inch margins
- Use active voice, with simple, clear and direct phrasing
- Be sure that information flows correctly
- Include all needed materials
 - Any charts, drawings, tables, and graphs need to be included within the paper
- All materials need to be readable within a single 8.5 x 11 page
 - You may elect to insert your materials within the paper and additionally send, a full page size, document also.
- Society Ownership (more information in *Required Elements*, refer to Pages 4 and 5)
- Author Page (more information in *Required Elements*, refer to Pages 4 and 5)
- Deadlines must be met
 - One (1) point is deducted for each day the Technical Paper is submitted late
- Communicate with the Certification Team; the Team is available to assist and guide you
- Perform spelling and grammar checks prior to submitting the Paper
- Obtain Feedback
 - The Certification Committee strongly suggests that the Candidate request a review of the Technical Paper by a CPE or other professional prior to submittal
- Check your math
 - **Math Errors** constitute an automatic *FAIL*. This includes mistakes in excel formulas.

Terminology

Define terms used in the composition of the Technical Paper to assist the readers' understanding. Keep in mind that the reviewers with responsibility for grading may be in a different geographic areas or may have limited knowledgeable in your chosen discipline. It is strongly suggested to insert a glossary.

References

All non-original materials must be properly referenced. Documentation of releases required by copyrights must also be included.

Due Date

Candidates are given an eight (8) week deadline in which to complete the first submission of the Technical Paper assignment.

Submittal Procedures

The Certification Team will communicate your due date and a specific link to use for upload of all Technical Paper documents. If, for any reason, the communication is lost, PLEASE be sure to communicate with your Certification Team, PRIOR to you due date.

Technical Paper submission includes the following.

- One (1) complete Microsoft Word (DOC)
- One (1) complete Adobe (PDF) version
 - All drawings, tables, and charts must be included within the body of the Technical Paper
 - All documentation must be readable on a single 8.5x11 page

Your Technical Paper must be electronically submitted, via the link sent to you, on the due date.

- Submittals that are incomplete or do not meet the requirements will be marked as a *FAIL*.
- Submittals that are more than 10 days late will be marked as a *FAIL*.

Technical Papers that are awarded a score of 24 points or greater, and that are found accurate and concise, may be published in the ASPE *Estimating Today* magazine.

REQUIRED ELEMENTS

Title Page

The Title Page must contain only the following elements.

- Title of Technical Paper
- Candidate Number / Candidate Name
- Date Submitted

Society Ownership Page

The Society Ownership Page shall contain the following elements.

- Society Ownership Statement

The following statement must be included, as written, and provide your name (in typewritten characters), signature and date.

"I hereby acknowledge that the contents of this Technical Paper belong to the Society, which is free to publish or otherwise make such use of all or portions of the Paper as it sees fit. If applicable, I have designated by the use of 1/4" wide black tape on the right margin opposite the text or reference materials, those portions that are considered proprietary, and not available for the Society's use or publication. I have obtained and attached all documentation of releases required by copyright laws for all non-original materials incorporated or referenced in this Paper."

Author Page

In approximately 100 words, include an autobiographical sketch on a separate, non-numbered page, presenting your qualification to the Certification Committee.

Other Information

The Title Page, Society Ownership Page and Author Page will be removed from the paper prior to review distribution to ensure author confidentiality.

The Candidate's name, nor their employer, is to be used in the remaining elements of the Technical Paper.

Cover Page

The Cover Page must contain only the following elements.

- Title of Technical Paper
- Candidate Number (assigned to the applicant by the Certification Board)
- Date Written (month and year of composition)

Pages are to be numbered concurrently, beginning with the cover page as page 1, and continuing through the balance of the pages. The Cover Page remains with the Paper throughout the entire review process.

Table of Contents

Provide a Table of Contents, which lists major headings and page numbers. Page numbers are to be included on the table of contents.

Body

A successful Technical Paper should address the following.

1. Introduction
 - Main MasterFormat Division
 - Specific Sub-Division: Code and Name
 - Brief description of subject matter
2. Types and Methods of Measurements
3. Specific factors to consider that may affect take-off and pricing such as quantities vs. large quantities, geographic location, and seasonal effect on work
4. Overview of labor, material, equipment, indirect costs and approach to mark-ups (in-depth details of these can be found in a variety of estimating books on the market)
5. Special risk considerations
6. Ratios and analysis (present analysis tools used to test final bid; provide examples)
7. Miscellaneous pertinent information
8. Project Drawing / Plan Sheet required
9. Take-Off and Pricing Sheets required
10. Glossary/Terminology (strongly recommended)
11. References (any non-original material)
12. Copyright release (as needed)

RECOMMENDATIONS

1. Avoid the composition of an entire policy and procedures manual and topics that are too broad in nature.
2. Be specific.

3. Based on certain criteria or assumptions, present alternative ways to estimate the same item relative to newly discovered facts or relationships.
4. Address the cost impact of laws, safety requirements, government regulations, etc., on the type of construction work you estimate. Provide examples.
5. Share techniques for tracking historical cost data and other practices that have improved your professional capacities as an estimator. Identify “tell” items in estimate.
6. Avoid reference to product brands, specific companies, organizations and persons, unless they are considered an industry standard.
7. Do not provide labor productivity rates, unless used in examples and pricing estimate sheets; instead, instruct means to developing them.
8. Think of your topic in terms of what would be covered in a chapter of a book.
9. Use charts and graphs to illustrate a new trend in your discipline.
10. Present thoughts on one or two procedures, which have improved your accuracy in the preparation of cost estimates.
11. Illustrate how you develop an assembly or group of line items for use in preparing conceptual estimates for projects. Present one or two assemblies to avoid being too general. Comparison of the same assembly under different conditions and variables may also be quite interesting.
12. Remember that your Technical Paper MUST explain *“How To Estimate The Cost Of ...”*
13. Include a sketch.
14. Read and follow the format guidelines.

Technical Paper Review Process + Scoring

Technical Papers are first checked for basic content (listed below) and format by the Certification Team.

- Word Count
- Society Ownership Page
- Author Page
- Glossary / References
- Sample Take-Off or Sample Estimate

Next, the Technical Paper is sent to two (2) competent reviewers for full content and technical grading. Technical Paper Reviewers must be current CPEs. The basic grading component is below.

**SAMPLE CONTENT CRITERIA REVIEW
TECHNICAL PAPER EVALUATION WORKSHEET**

CandidateID#:

Review for paper content:

Based upon a minimum of two readings, it is my opinion that this paper deserves the following rating based on the CONTENT criteria listed below:

CRITERIA	Excellent	Good	Acceptable	Poor	Unacceptable
1. Knowledge of Estimating	5	4	3	2	1
2. Demonstration of Estimating Experience	5	4	3	2	1
3. Composition, Spelling, Grammar and Style	5	4	3	2	1
4. Coverage of Important Elements	5	4	3	2	1
5. Cohesiveness and Continuity	5	4	3	2	1
6. Overall Technical Merit	5	4	3	2	1
Subtotal of Points					
Less Points for Late Submittal					

Thus, _____ total points of the possible 30 points have been earned.
A minimum of 18 points is required to accept this paper for purposes of granting Certification to the candidate.

Reviewer Comments: (use additional sheets if necessary)

Candidates must earn a minimum of 18 points from the possible 30 by each reviewer to be awarded a passing score on this assignment.

An award of less than 18 points from any of the two reviewers or/and as a result of late submittal shall constitute a judgment of "deficient for the purpose of Certification." Candidates will be advised of their status with a copy of the Content Criteria Evaluation Worksheet. Candidates will have one opportunity to revise their Paper and resubmit for review.

Revised Technical Papers

Candidates are provided one (1) opportunity to submit a revised Technical Paper, when.

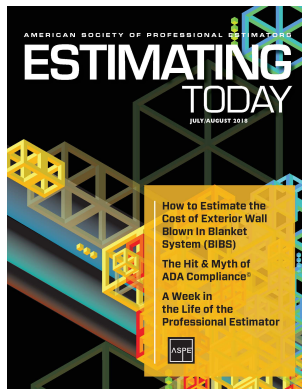
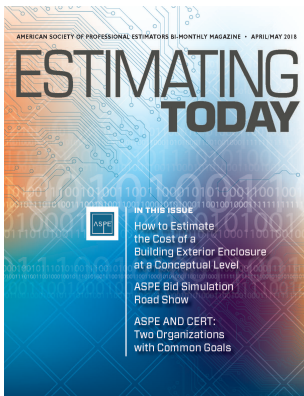
- A passing score is not awarded, from either of the two reviewers
- Technical Paper is returned for a Math Error
- Technical Paper is returned for Word count or other content deficiencies

Revised Technical Papers must be received by the Society Business Office per the written notification to candidates and by the stated deadline (no exceptions). **Untimely responses or second deficient criteria judgments constitute termination from the current Certification Cycle.**

***Papers that contain a math error (includes formula errors on spreadsheets) will not be considered acceptable regardless if the score is 18 or above on the other categories.**

Goal of Technical Papers

Technical Papers that are awarded 24 points or greater, and that are found accurate and concise, will be considered for publishing in ASPE's own *Estimating Today* magazine.



Sample Technical Papers may be obtained for reference, by researching within *Estimating Today* on ASPE website.

For further assistance, direct inquiries to the Certification Team at Certification@ASPENational.org.