

PUBLISHING IN ASCE JOURNALS

A GUIDE FOR AUTHORS



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Errata: Errata, if any, can be found at <http://dx.doi.org/10.1061/9780784479018>.

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ABOUT ASCE JOURNALS

A core mission of ASCE has always been to share information critical to civil engineers. In 1867, then ASCE President James P. Kirkwood addressed the membership regarding the importance of sharing information as the organization's members spread far outside the boundaries of New York City.

“Here, because we are so widespread,... we shall find it more needful to create this other tie, and to maintain it by a regular distribution of so much of the proceedings of the general meetings as will be readable and valuable to the absent members.”—James P. Kirkwood

Volume 1 of the *Transactions of the American Society of Civil Engineers* was published in 1872 and contains technical papers read to the assembled members of the Society at various meetings. These papers explored new techniques, materials, and best practices. Kirkwood spoke of the importance of documenting and sharing the failures in order to improve the practice.

By 1956, the members of the Society had grown and subdisciplines had emerged as divisions. The *Transactions* were now split into the journals of the original divisions.

Today, as in 1867, the journals of ASCE are the media through which civil engineers exchange technical and professional knowledge. Information published in the journals is the archival record of the technical advances of the profession.

ASCE publishes 34 journals across many civil engineering disciplines. Authors are ASCE members and non-members alike. The community surrounding each journal is international and multidisciplinary.

Responsibility for reviewing manuscripts submitted to ASCE for publication rests with the editors and editorial boards of each journal. The Executive Committee or Publications Committee of each division, council, and institute is responsible for the contents of their journals.

ASCE LIBRARY

The ASCE Library is the online home of journals, conference proceedings, ebooks, and standards. All ASCE journals are available online with full text going back to 1983.

ASCE journal content is highly discoverable and indexed in all the major services, including Google Scholar, Elsevier (Scopus and Engineering Village), Thomson Reuters (ISI, Web of Science, SCI), ProQuest, Civil Engineering Database, TRID, and EBSCO to maximize the discovery of author works.

Information about each journal, such as the Aims and Scope, Editorial Board, Submission links, etc., can be found on the home page of each journal at ascelibrary.org.

GUIDELINES FOR PUBLICATION

To be acceptable for publication, a manuscript must:

- Be of value and interest to civil engineers.
- Be an original review of past practice, present information, or probe new fields of civil engineering activity.
- Contribute to the planning, analysis, design, construction, management, or maintenance of civil engineering works.
- Contribute to the advancement of the profession by using the journals as a forum for the exchange of experiences by engineers.
- Include a practical applications section whenever possible; theoretical manuscripts should indicate areas of additional research to implement technology transfer.
- Be free of evident commercialism or private interest, but must not obscure proper names when they are required for an understanding of the subject matter.
- Be free of personalities, either complimentary or derogatory.
- Not be readily available elsewhere—it should not have been published previously by ASCE (including a proceeding) or other professional or technical societies, federal agencies, or commercial publishers.
- Be clear and transparent on authorship; ASCE will not review or publish any manuscripts whose authorship is in dispute.
- Be consistent with the purpose of the Society and not contain purely speculative matter, although it can use scientific evidence to challenge current concepts or propose new ideas that will encourage progress and discussion.

TYPES OF JOURNAL CONTENT

Technical Papers — Technical papers are full-length manuscripts of value and interest to civil engineers. They must be original reviews of past practice, present information of current interest, or probe new fields of civil engineering activity. They should report results of thought-provoking studies that contribute to the planning, analysis, design, construction, management, or maintenance of civil engineering works. Technical papers should include a practical applications section whenever possible; theoretical manuscripts should indicate areas of additional research to implement technology transfer. Practical papers are strongly encouraged. Technical papers must have fewer than 10,000 words or word-equivalents.

Technical Notes — Technical notes present (1) original, practical information; (2) preliminary or partial results of research; (3) concisely presented research results; and (4) innovative techniques to accomplish design objectives. Technical notes should be no more than 3,500 words or word-equivalents.

Case Studies — Case studies describe a method or application that illustrates a new or existing principle or presents an innovative way to solve a problem. Ideally, results should have broad implications and

not be specific to only the case presented. Case studies are judged with the same rigor as technical papers and notes. They may range from 5,000–10,000 words or word-equivalents.

Discussions — Discussions present significant comments or questions about the technical content of a technical paper, note, or case study published in an ASCE journal. Discussions may be submitted during a 5-month period following the date of publication of the manuscript and have a suggested limit of 2,000 words. Discussions should not contain matter readily found elsewhere, advocate special interests, contain obvious commercial intent, controvert established fact, or be purely speculative.

Discussions follow the requirements for other manuscripts except that they do not have abstracts, introductions, or conclusions. Separate discussions must be submitted for companion papers (a study presented as multiple parts in the same issue). Numbering of author footnotes, figures, tables, and equations should begin with one (1) and continue sequentially making it clear when a table, figure, or equation being discussed is from the original paper or the discussion or closure.

Directly below the title of the discussion or closure, provide the title, authors, and DOI of the original paper.

Closures — Closures are responses written by the author(s) of the original manuscript in response to an accepted discussion. The author(s) addresses and clarifies issues raised in discussions and provides conclusions to the issues. Closures and discussions are published together. Guidelines for formatting a closure are the same as for discussions. Please make sure that those authors involved in the writing of the closure are included in the byline. Not all of the original authors need to be listed.

Book Reviews — Book reviews assess new books whose content is judged important. They summarize the work, illuminate its strengths and weaknesses, and place it in context with existing literature. Reviews are limited to 1,200 words. Please note that not all ASCE journals publish book reviews.

The first page of a book review must contain the following information: book title, author(s)/editor(s), publication year, publisher and publisher address, ISBN, price in U.S. dollars, and total number of pages. The reviewer's name and affiliation must also be provided.

Editorials — An editorial is a brief opinion piece, normally written by the editor, concerning the scope, content, direction, or philosophy of the journal or a policy issue concerning engineering research or its application. Editorials are occasionally invited but not reviewed. Contributions are usually short, not exceeding one or two printed pages or 1,000–2,000 words, and rarely contain tables, figures, or references. Editorials require a title and author's byline with current affiliations.

Forums — A forum is a thought-provoking opinion piece or essay founded in fact, sometimes containing speculation, on a civil engineering topic of general interest and relevance to the readership of the journal. Its purpose is to stimulate discussion rather than document an advance in research or its application. A forum is subjected to either partial or full peer review, depending on the subject matter and recommendation of the editor. Forums are usually two to five printed pages or 2,000–5,000 words.

Tables, figures, and references are often included but an abstract is unnecessary. Forums require a title and author's byline with current affiliations.

Corrections —

- **Errata:** Corrections of published errors. If errors are serious enough to impair understanding or mislead readers, authors should submit errata through the submission website for review by the managing editor and production manager. Errata are published in the earliest available issue.
- **Notice of Redundant Publication:** Notification to the readers that significant content in the paper may have already been published in the authors' previous published work.
- **Expression of Concern:** Notification to the readers that the paper is being investigated.
- **Retraction:** Notification that the paper is no longer considered a viable contribution to the journal. Retracted papers are noted with the word "Retraction" added to the title. Retracted papers are not removed from ASCE publications.

Companion Papers — Companion manuscripts must be submitted at the same time to ensure they are reviewed together and will publish together if both are accepted. Generally, companion manuscripts are reviewed by the same editors and reviewers; however, they can be reviewed as separate articles if the editor deems it is the most appropriate and logical presentation of the work. If the work would more logically be presented as a single paper, the set will be returned to the author(s) for revision as a single paper.

ADDITIONAL CONTENT TYPES

The *Journal of Geotechnical and Geoenvironmental Engineering* contains the following content type:

Technical Breakthrough Abstract — Short contributions that present original, concise, and practical information regarding an important new breakthrough relevant to geotechnical engineering. Technical breakthrough abstracts may contain figures, tables, and references but may not exceed one published page (single side) in the journal, which corresponds to a length of approximately 800 words or word-equivalents.

The *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction* contains the following content types:

Scholarly Papers — Scholarly papers are original, well-researched, referenced, and analyzed papers typically ranging from 4,000–9,000 words. Papers address the subject matter's impact on the execution of engineering and construction projects. Articles discussing jurisprudence fall in this category.

Legal Notes — Legal notes emphasize the specific practice and application of laws. They are usually 1,500–9,000 words in length.

Features — Feature articles describe a subject of current public interest and are written to apprise the readership of the main issues and developments in the matter. Features are typically 2,500–7,500 words in length.

Letters to the Editor — Short letters range from 400–1,500 words; longer letters are up to 4,000 words. Letters should meet a high technical and scientific standard and be referenced, where possible, especially the longer letters.

Synopses of Court Verdicts — Synopses are write-ups on a recent court verdict, typically ranging from 1,500–3,500 words, which trace the history, developments, and outcome of the court verdict and explain its effect on contract administration.

Conference Reviews — Conference reviews are short yet full accounts or descriptions of any conference, seminar, or symposium on law and dispute resolution. This review must discuss a recent event. The length of such articles must be between 800–2,400 words.

Discussions and closures may be submitted for Features, Scholarly Papers, Case Studies, and Legal Notes.

ETHICAL STANDARDS

OBLIGATIONS OF AUTHORS

- An author's central obligation is to present a concise account of his or her research, work, or project completed with an objective discussion of its significance.
- Submitted manuscripts should contain detail and reference to public sources of information to allow the author's peers to repeat the work or otherwise verify the accuracy. All reasonable requests by editors or reviewers for materials, data, and associated protocols should be fulfilled. Authors should clearly note any data sharing restrictions in their cover letter when submitting (see ASCE Policy on Materials and Data Sharing on page 16).
- The manuscript must not contain plagiarized material or falsified research data. ASCE is a member of the Committee on Publication Ethics (COPE). As a member, ASCE follows the guidelines recommended by COPE outlined at publicationethics.org.
- Fragmentation of research papers should be avoided. An engineer or scientist who has done work on a several related systems should organize publication so that each manuscript gives a complete account of a particular aspect of the general study.
- ASCE will not review or publish manuscripts that have been previously published in print or online.
- Authors should refrain from criticizing another manuscript by personally attacking the author.
- To protect the integrity of authorship, only persons who have significantly contributed to the research or project and manuscript preparation should be listed as coauthors. The corresponding author will attest to the fact that any others named as coauthors have seen the final version of the paper and agreed to the submission for publication.
- It is inappropriate to submit manuscripts with an obvious commercial intent.
- It is inappropriate for an author to either write or coauthor a discussion on his or her own published manuscript, except in the case of a closure to the discussion.

OBLIGATIONS OF EDITORS

- The primary responsibility of an ASCE journal editor is to ensure an efficient and fair review process of manuscripts submitted for publication, and to establish and maintain high standards of technical and professional quality.
- Criteria of quality are originality of approach, concept, and/or application; profundity; and relevance to the civil engineering profession.
- An editor shall give unbiased consideration to all manuscripts offered for publication and shall judge each on its merits without regard to any personal relationship or familiarity with the author(s), or to the race, gender, sexual orientation, religious belief, ethnic origin, citizenship, professional association, or political philosophy of the author(s).
- The editor and editorial staff shall disclose no information about a manuscript under consideration to anyone other than those from whom professional advice regarding the

publication of the manuscript is sought. The names of reviewers shall not be released by the editors or editorial staff.

- An editor who authors or coauthors a manuscript submitted for consideration to the journal with which that editor is affiliated, shall not review that work. If after publication, the editor-author's work merits ongoing scientific debate within the journal, the editor-author shall accept no editorial responsibility in connection therewith.
- An editor shall avoid conflicts of interest and/or the appearance thereof. An editor shall not send a manuscript to reviewers who are known to have personal bias in favor of or against the author or the subject matter of that manuscript.
- Unpublished information, arguments, or interpretations contained in a submitted manuscript are confidential and shall not be used in the research of an editor or associate editor, or otherwise disseminated except with the consent of the author and with appropriate attribution.
- If an editor is presented with convincing evidence that the substance, conclusions, references or other material included in a manuscript published in an ASCE journal are erroneous, the editor, after notifying the author(s) and allowing them to respond in writing, shall facilitate immediate publication of an errata. If possible, an editor shall also facilitate publication of appropriate comments and/or papers identifying those errors.
- If an editor is presented with convincing evidence that a manuscript or published paper contains plagiarized material or falsified research data, the editor shall forward such evidence to the managing editor for investigation.
- ASCE, and by extension all ASCE appointed editors, are members of the Committee on Publication Ethics (COPE). ASCE generally follows the guidelines and recommendations as published by COPE.

OBLIGATIONS OF REVIEWERS

- Because qualified manuscript review is essential to the publication process, all engineers and scientists have an obligation to do their fair share of reviews.
- If a reviewer feels inadequately qualified or lacks the time to fairly judge the work reported, the reviewer shall decline the invitation to review in a timely manner.
- A reviewer shall objectively judge the quality of a manuscript on its own merit and shall respect the intellectual independence of the author(s). Personal criticism is never appropriate.
- A reviewer shall avoid conflicts of interest and/or the appearance thereof. If a manuscript submitted for review presents a potential conflict of interest or the reviewer has a personal bias, the reviewer shall return the manuscript promptly without review, and so advise the editor.
- If a reviewer receives for review a manuscript authored or coauthored by a person with whom the reviewer has a personal or professional relationship, the existence of this relationship shall be promptly brought to the attention of the editor.
- A reviewer shall treat a manuscript received for review as a confidential document and shall neither disclose nor discuss it with others except, as necessary, to persons from whom specific advice may be sought; in that event, the identities of those consulted shall be disclosed to the editor.

- Reviewers shall explain and support judgments adequately so that the editor and author(s) may understand the basis for their comments. Any statement that an observation, derivation, or argument has been previously reported shall be accompanied by the relevant citation.
- A reviewer shall call to the editor's attention any substantial similarity between the manuscript under consideration and any published paper or any manuscript submitted concurrently to another journal.
- A reviewer shall not use or disclose unpublished information, arguments, or interpretations contained in a manuscript under consideration, except with the consent of the author and with appropriate attribution.
- If a reviewer has convincing evidence that a manuscript contains plagiarized material or falsified research data, the reviewer shall notify the editor as ASCE journals staff immediately. The reviewer should not contact the author directly.

AUTHORSHIP

To protect the integrity of authorship, only persons who have significantly contributed to the research or project and paper preparation shall be listed as coauthors. The corresponding author attests to the fact that any others named as coauthors have seen the final version of the paper and have agreed to its submission for publication. An author who submits a manuscript for publication accepts responsibility for having properly included all, and only, qualified coauthors. ASCE will not consider papers if the authorship is in dispute.

The Committee on Publication Ethics (COPE) has the following advice on authorship:

1. Check the author(s)' institution for policies on authorship.
2. Research team members should have open discussions from the very beginning about authorship. Team members should continue to discuss the roles of each player as the project progresses and keep a written record of the decisions.
3. Documentation should be kept on who is performing which tasks throughout the research.
4. Authorship should be decided prior to the writing of the paper. The entire research team should know what to expect. [Albert, T. and Wager, E. (2003). "How to handle authorship disputes: A guide for new researchers," The COPE Report, Committee on Publication Ethics, <http://publicationethics.org/resources/guidelines>]

ASCE does not allow changes to the author byline, to include the order of the authors, after the paper has been accepted. During review, any changes must be verified by every author on the paper. Authors cannot be removed without their explicit permission.

Acknowledgments at the end of the paper are encouraged as a way to thank those who have contributed to the research or project but did not merit being listed as an author. The Acknowledgments should indicate what each person did to contribute to the project.

CROSSCHECK

ASCE is a member of CrossCheck and employs the CrossCheck tool, powered by iParadigms, to evaluate the originality of work submitted to the journals. CrossCheck evaluates the text of a submitted paper against a large database of published journal content and non-journal content on the Internet. A similarity report is provided to ASCE staff and the editors in evaluating the originality of work.

Papers that are found to have excessive overlap with the author(s)' previous work may be returned to the author with a request to revise the overlap and/or verbatim sections.

Papers that are found to have excessive and unattributed overlap with published works authored by others will be subject to review by the editors and possibly the corresponding author's institution.

ACCUSATIONS OF SCIENTIFIC MISCONDUCT OR VIOLATIONS OF ASCE POLICIES

ASCE is a member of the Committee on Publication Ethics (COPE) and as a general rule follows the guidelines set forth by COPE regarding issues of scientific misconduct. This section provides insight into the process that ASCE staff and editors employ when issues arise or accusations are sent.

Manuscripts submitted to ASCE are considered confidential and will not be shared. If a paper is under investigation for possible misconduct, ASCE may share the manuscript with editors of ASCE and non-ASCE journals also investigating the matter.

DUAL SUBMISSION

Definition — ASCE will not review papers that are being reviewed elsewhere. ASCE performs a duplicate submission check that looks for similar papers throughout the ASCE journal database. If ASCE discovers that a paper in review is also in review elsewhere, ASCE will contact the other journal and request a copy of the manuscript for evaluation.

Action — If it is discovered that the same or very similar papers have been submitted to more than one ASCE journal, both papers will be rejected. If a paper in review appears to be in review at another non-ASCE journal, ASCE will ask the author for an explanation and, barring an honest mistake, likely reject the paper in review.

DUAL PUBLICATION

Definition — ASCE does not review or publish material that has been published already. This includes publication in other ASCE journals, books, and proceedings. ASCE expects that all submissions are novel and original to the author. See Redundant Publication below. **NOTE:** Papers included in the Transportation Research Board (TRB) Annual Meeting Compendium are considered published and cannot be submitted to ASCE for publication without significant additions and revisions. Authors who intend to submit a TRB conference paper to an ASCE journal must opt-out of inclusion in the compendium.

Action — The papers in question will be evaluated for similarity. The authors will be asked for an explanation. The publisher of the similar paper will be contacted. If the investigation by ASCE finds that the paper meets the definition of dual publication, the paper may be retracted and the author's institution notified of the action. Authors who are members of ASCE that are found to be in violation of ASCE policies may also be subject to investigation by the ASCE Committee on Professional Conduct.

REDUNDANT PUBLICATION OR FRAGMENTATION OF RESEARCH

Definition — ASCE expects that submitted papers contain at least 50% new content and that the remaining 50% not be verbatim to previously published work. Authors are encouraged to build on previous work and submit new papers, so long as the submitted paper offers significant information. Conference papers included in an ASCE or non-ASCE proceedings are held to the same standard. **NOTE:** Papers included in the Transportation Research Board (TRB) Annual Meeting Compendium are considered published and cannot be submitted to ASCE for publication without significant additions and revisions. Authors who intend to submit a TRB conference paper to an ASCE journal must opt-out of inclusion in the compendium.

Action — Fragmentation of research is not acceptable. Papers in review that are found to contain excessive overlap to other papers either published or in review will be evaluated using CrossCheck as well as an editor evaluation. Authors will be asked to provide an explanation on the differences between the papers in question. If an editor feels as though the submitted manuscript is redundant to already published materials, the paper will be rejected. Published papers that are found to contain excessive overlap are subject to a Notification of Redundant Publication. If the published overlap finds ASCE in violation of another publisher's copyright, ASCE may retract the paper. The author(s)' institution may be notified.

FABRICATION AND FALSIFICATION OF DATA

Definition — According to the U.S. Office of Research Integrity, fabrication of data is "making up data or results and recording or reporting them" and falsification is "manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record" (ori.hhs.gov/definition-misconduct).

Action — Fabricating or falsifying data is a major violation of proper scientific conduct. Authors accused of either violation will be asked to supply all supporting data and results for evaluation. If ASCE and its editors find cause for further investigation, the issue may be referred to the author(s)' institution and/or funding agency for investigation. Authors who are members of ASCE may also be reported to the ASCE Committee on Professional Conduct. ASCE journals may issue an Expression of Concern during any investigation. If wrongdoing is determined, the offending paper(s) will be rejected or retracted and the authors may be banned from publishing with ASCE in the future.

PLAGIARISM

Definition — “Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit” (ori.hhs.gov/definition-misconduct).

Action — ASCE journals use CrossCheck, powered by iThenticate, to compare submitted papers to already published works. Authors may be asked to explain similarities. Follow-up investigation and action depends on the nature of the offense. If a paper is found to have deliberately plagiarized works of another, the paper will be rejected or retracted and the author(s)' institution will be notified. Authors who are members of ASCE may also be reported to the ASCE Committee on Professional Conduct.

CORRECTING THE LITERATURE

ASCE has a responsibility to the engineering profession and the scientific community to ensure that known errors or misrepresentations are corrected in the literature.

Minor errors of fact or omission may be corrected by publishing an erratum. An erratum must be approved by the managing editor and will be reserved for errors that will impede the readers' understanding of the text. Minor typographical errors are typically not worthy of an erratum. Once approved, the erratum will be published online and in the next available print issue. The erratum and the original article will be linked in the ASCE Library under the “Editorially Related” section or tab.

Major errors may result in the retraction of a paper. A retraction essentially tells the readers to disregard the original work. That said, retracted papers are still available to readers. The title of the original paper will be appended with the word “Retracted.” The PDF will also be watermarked with the word “retracted.” An explanation will be published and digitally linked to the paper. ASCE strives to be precise in explaining why a paper has been retracted. Retractions that lack specificity will not be permitted. ASCE will always consult with an author prior to retracting a paper, but in cases where wrongdoing has been confirmed or ASCE faces potential legal repercussions, a retraction may be published without the author(s)' consent.

All corrections published are included in feeds to all abstracting and indexing services allowing for quick updates. All corrections are published online and in print and are available for readers for free (no subscription or registration required).

ALERTING ASCE OF POSSIBLE MISCONDUCT

ASCE will keep confidential the names and affiliations of individuals who report possible misconduct related to the authors, editors, and reviewers associated with ASCE journals. Individuals wishing to make a report should contact the ASCE managing editor at journal-services@asce.org. Accusations must be specific in order to allow for ample investigation.

ASCE PUBLICATION POLICIES

PEER REVIEW POLICIES

INTERNAL REVIEW

If the author(s)' employer or funding agency requires an approval process prior to a paper being published, those approvals must take place before submitting a paper to the journal. Likewise, any required approvals for revised manuscripts must be done during the author review period. ASCE will not allow extensive changes or delays for papers post-acceptance. Papers with extensive revisions will be withdrawn and sent back through the review process.

JOURNAL ARTICLES

Technical papers, notes, and case studies must be reviewed by at least two competent reviewers. The editor must receive an agreeing review from one of the reviewers in order to render a decision of accept or decline. ASCE's goal is to have manuscripts complete their initial review within 45 days. Revisions and re-review are frequently required conditions of acceptance.

Discussions, closures, editorials, and forums only require a review by the editor. Corrections are reviewed by the managing editor and production manager.

PRACTICE PERIODICAL

Manuscripts submitted to ASCE's *Practice Periodical of Structural Design and Construction* only require one review to accept or decline a manuscript. The review is performed by either an editor or a qualified individual selected by the editor.

POSTING PAPERS ON THE INTERNET

Authors may post the **final draft** of their work on open, unrestricted Internet sites or deposit it in an institutional repository when the draft contains a link to the bibliographic record of the published version in the ASCE Civil Engineering Database. "Final draft" means the version submitted to ASCE after peer review and prior to copyediting or other ASCE production activities; it does not include the copyedited version, the page proof, or a PDF of the published version.

Authors may post a PDF of the ASCE-published version of their work in their employers' **intranet** site as long as it is password protected (not available to the public). The following statement should appear with the paper: "This material may be downloaded for personal use only. Any other use requires prior permission of the American Society of Civil Engineers."

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MATERIALS SHARING AND DATA AVAILABILITY

Recognizing that science and engineering are best served when data are made available during the review and discussion of manuscripts and journal articles, and to allow others to replicate and build on work published in ASCE journals, all reasonable requests by reviewers for materials, data, and associated protocols must be fulfilled. ASCE must be informed of any restrictions on sharing of materials (Materials Transfer Agreements or patents, for example) applying to materials used in the reported research. Any such restrictions should be indicated in the cover letter at the time of submission, and each individual author will be asked to reaffirm this at the time the final version of the manuscript is submitted. The nature of the restrictions should be noted in the paper. Data not shown and personal communications cannot be used to support claims in the work. Authors are encouraged to use Supplemental Data to show all necessary data. Unreasonable restrictions may preclude publication.

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Upon submitting revisions to the journal, authors are required to submit a rebuttal to the reviewer comments. Authors should note the page and line number and fully address all reviewer comments. Even if an author does not agree with the change requested, the author should explain the rationale in the rebuttal. If an editor feels that an author has ignored reviewer comments, the editor may reject the revised manuscript.

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- Title page (includes title, author byline & affiliation, abstract)
- Introduction
- Main text sections
- Conclusion
- Appendix(es)
- Acknowledgments
- Disclaimers
- Notation list
- Supplemental Data
- References

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²⁷*Excavation-Construction, Inc., v. United States, op cit.*

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U.S. customary unit (symbol)	SI unit (symbol)	Multiply by
Acre-foot (acre/ft)	Cubic meters (m ³)	1.23×10^3
Acre (acre)	Hectare (ha)	0.405
Inch (in.)	millimeter (mm)	25.4
Kilogram force (kgf)	Newton (N)	9.81
Mile (mi)	Kilometer (km)	1.61
Pound force (lbF)	Newton (N)	4.45
Pound force per square inch (psi)	Kilopascal (kPa)	6.89
Pound mass (lbm)	Kilogram (kg)	0.454
Gallon (gal.)	Liter (L)	3.79

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Factor	Prefix	Symbol ^a
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10 ⁶	Mega	M
10 ³	Kilo	k
10 ²	Hecto	h
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10 ⁻¹	Deci	d
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10 ⁻⁶	Micro	μ
10 ⁻⁹	Nano	n

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At the end of the manuscript text, authors must include a set of conclusions, or summary and conclusion, in which the significant implications of the information presented in the body of the text are reviewed. Authors are encouraged to explicitly state in the conclusions how the work presented contributes to the overall body of knowledge for the profession.

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The following symbols are used in this paper:

A = surface area of element;
 $[A]$ = coefficient matrix;
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 B = strain-displacement matrix;
 $\{b\}$ = augment vector;
 $E()$ = expectation operator;
 $e = 2.718281828$;
 F = Froude number;
 F_d = downstream Froude number;
 F_0 = approaching Froude number;
 g = gravitational acceleration;

M = Mach number;
R = Reynolds number;
Ri = Richardson number;
S = Strouhal number;
U = degree of consolidation;
 U_t = average degree of consolidation;
 u = excess pore water pressure;
 $\{u\}$ = excess pore water pressure vector;
 u_t = excess pore water pressure at any time t ;
W = Weber number;
 w = out-of-plane displacement;
 α = coefficient;
 ΔS = elemental surface area;
 $\Delta\phi = \phi(t + T) - \phi(t)$;
 $\xi = Him_0^{1/2}$; and
 ω = wave number.

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- Attention should be paid to the file size to make download time reasonable because streaming formats are **not** acceptable for submission at this time. A recommended target size for each multimedia file is 3–5 MB.
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ACCEPTABLE ARCHIVAL VIDEO FILE FORMATS

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 - DV – PAL
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 - 48,000 samples per second
 - 16 bit
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 - Stereo or Mono
- MPEG
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 - DV NTSC
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Frame size	For video only (not still images): Video image size (height x width, in pixels). <i>Optional.</i>
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REFERENCES

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Evans, G. M., and Furlong, J. C. (2003). *Environmental biotechnology: Theory and applications*, Wiley, Chichester, U.K.

Moody's municipal and government manual. (1988). Moody's Investors Service, New York.

Building Codes and Provisions — Building codes, provisions, and standards should be listed alphabetically by the name of the promulgating institution. If a title and code number are given, the title should be in quotes, and the code number in italics; if only a title is given, the title should be in italics.

ACI (American Concrete Institute). (1989). “Building code requirement for reinforced concrete.” *ACI 318-89*, Farmington Hills, MI.

Building Officials and Code Administrators International (BOCA). (1993). *The BOCA national building code*, Country Club Hills, IL.

CEN (European Committee for Standardization). (1992). “Design of steel structures, part 1.1.” *Eurocode 3*, Brussels.

Electronic Materials —

CD-ROM—The section, chapter, and page numbers should be provided if available:

Liggett, J. A., and Caughey, D. A. (1998). “Fluid statistics.” *Fluid mechanics* (CD-ROM), ASCE, Reston, VA, Section ..., Chapter ..., pp. ...

Website—The following elements should be included: author's name (if known); year of publication or last revision (if available); full title of the document, in quotation marks; title of the complete work (if applicable), in italics; full web address, enclosed within angle brackets; and date of the visit (if

applicable), in parentheses. If the Web page shows no year of publication, the year of the visit may be used in its place.

Arizona Dept. of Commerce. (2005). "Community profile: Hualapai Indian Reservation." <http://www.azcommerce.com/doclib/commune/hualapai.pdf> (Mar. 17, 2014).

"Acquisition reform network." (1998). *Arnet*, <http://www.arnet.gov> (Jan. 21, 2010).

Journal Articles — The standard format for a paper published in a U.S. journal is as follows:

Beskos, D. E. (1987). "Boundary element methods in dynamic analysis." *Appl. Mech. Rev.*, 40(1), 1–23.

ASCE Journals — ASCE no longer uses page numbers and has adopted a new format for its references (including those older papers that still contain page numbers). Use the following style for citation to an ASCE journal:

Authors. (Year of initial publication). "Title of paper." *Journal abbr.*, DOI, CID/page range.

Irish, J. L., and Resio, D. T. (2013). "Method for estimating future hurricane flood probabilities and associated uncertainty." *J. Waterway, Port, Coastal, Ocean Eng.*, 10.1061/(ASCE)WW.1943-5460.0000157, 04013015.

ASCE Committee/Technical Reports — ASCE committees, task forces, etc. publish reports, proposed codes and standards, commentaries on codes and standards, and so on. The committee is the author.

ASCE Task Force on Friction Factors in Open Channels. (1963). "Friction factors in open channels." *J. Hydraul. Div.*, 89(2), 97–143.

Foreign Journals — Authors may want to give an English translation of a non-English-language title. Some non-English-language journals also have titles and abstracts in English, with the research papers being in the foreign language.

Glock, D. (1977). "Überkritisches Verhalten eines starr ummautelten Kreisrohres bei Wasserdruck von aussen und Temperaturdehnung [Critical behavior of liners of rigid pipeline under external water pressure and thermal expansion]." *Der Stahlbau*, 7, 212–217 (in German).

The original title should not be included if the language uses an alphabet other than Latin (Cyrillic, CJK, etc.).

In-Press Articles — Articles that are "in press" (i.e., those that have been accepted but have not yet been published) may be included in the References list. Include the year of acceptance, if possible, or the current year as follows:

Dasgupta, G. (2008). "Stiffness matrix from isoparametric closed form shape functions using exact integration." *J. Aerosp. Eng.*, in press.

Maps — The following style is used for maps:

Brown, R. J. E. (1967). Permafrost in Canada, *Map 1246A*, Geol. Surv. of Can., Ottawa, ON.

Smith, R. L., Bailey, R. A., and Ross, C. A. (1970). Geologic map of the Jemez Mountains, New Mexico, *U.S. Geol. Surv. Misc. Invest. Map, I-571*.

Newspaper Articles — The article author (if known), year in parentheses, title of the article in quotes, name of the newspaper in italics, and section/page numbers (if applicable) should be included for article citations:

Mossberg, W. S. (1993). “Word isn’t perfect but new WordPerfect is too much for words.” *Wall Street Journal*., Dec. 2, B1.

Proceedings — The location of a conference or symposium is required only if it is part of the title or proceedings. The name and location of the publisher is required. If there is no “publisher,” the name of the location of the sponsor are required. The name of the sponsor is sometimes part of the title of a conference proceeding. Editor name(s) and volume number should be included if available.

Eshenaur, S. R., Kulicki, J. M., and Mertz, D. R. (1991). “Retrofitting distortion-induced fatigue cracking of noncomposite steel girder-floorbeam-stringer bridges.” *Proc., 8th Annual Int. Bridge Conf.*, Engineers’ Society of Western Pennsylvania, Pittsburgh, 380–388.

Karam, G. N. (1991). “Effect of fiber volume on the strength properties of short fiber reinforced cements with application to bending strength of WFRC.” *Proc., 6th Technical. Conf. of the American Society for Composites*, A. Smith, ed., Vol. 1, Technomics, Lancaster, PA, 548–557.

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 - ^bFlexural shear strength of the masonry panel.
 - ^cBased on Smith et al. (2009).
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SAMPLE TABLE 1

Table 1. Holocene Sites Used to Develop VS-Based CRR Chart

Site	Test type	Critical layer depth (m)	V_p (m/s)
Japan			
Hanshin Expressway 5 ^a	SL	2.1–5.3	900
Kobe-Nishinomlya Expressway	SL	4.4–10.5	1,540
Owi Island	DH	4.5–7.8	1,300
United States			
Coyote Creek ^a	CH	3.5–6.0	332
Marina District School ^a	CH	2.7–4.3	1,360
Bay Bridge Toll Plaza ^a	CH	5.0–7.5	1,540

Note: CH = crosshole; DH = downhole; SH = suspension logger.

^aSites of historic liquefaction occurrence.

SAMPLE TABLE 2

Table 2. True Stress-Strain Data for FEA

Point	1.5-mm G450 sheet steel			3.0-mm G450 sheet steel		
	True strain (10^{-3})	Plastic strain (10^{-3})	True stress (MPa)	True strain (10^{-3})	Plastic strain (10^{-3})	True stress (MPa)
1	0	0	0	0	0	0
2	3.02	0.00	590	2.64	0.00	535
3	19.8	16.8	600	41.9	39.3	595
4	41.9	38.9	640	144	141	660
5	144	141	710	1,000	997	660
6	1,000	997	710	—	—	—

SAMPLE TABLE 3

Table 3. Geometric Properties of Subassembly Specimens

Test specimen ^a	Position of curtailment (mm)		Longitudinal reinforcement ^b				Bottom bars at the middle joints ^c
	I01	I02	A-A section		B-B section		
			Top	Bottom	Top	Bottom	
S1-0.90	1,000	NA	2T10 (0.90%)	2T10 (0.49%)	2T10 (0.49%)	2T10 (0.49%)	Continuous
S2-0.73	925	NA	3T10 (0.73%)	2T10 (0.49%)	2T10 (0.49%)	2T10 (0.49%)	Lap splice
S3-1.24	1,000	345	3T13 (1.24%)	2T10 (0.49%)	2T13 (0.82%)	1T13 (0.90%)	Lap splice
S4-1.24	1,000	NA	3T13 (1.24%)	2T13 (0.82%)	2T13 (0.82%)	2T13 (0.82%)	Continuous

Note: The beam sections are 150 mm wide and 250 mm deep for all specimens (i.e., $b = 150$ mm and $h = 250$ mm); the concrete cover thickness is 20 mm for all specimens; total net span $L = 2L_n + 250$ (mm); and test results of Specimens S1 and S2 are shown in Yu and Tan (2011). NA = not available.

^aThe seismic detailing in terms of the arrangement of the stirrups is indicated by S.

^bReinforcement ratio in brackets is calculated by A_s/bd , where $b = 150$ mm and $d = 215$ mm; the A-A and B-B sections are given in Fig. 1.

^cThe lap-splice lengths for the bottom bars of Specimens S3 and S6 are 410 and 530 mm, respectively. The lap-spliced position is through the middle joint.

FIGURES

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- **Fig. 2.** Percentage breakdown of practitioner responses: Year 1 and Year 2

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Community Heating & Plumbing Co., Inc., v. Kelso, 987 F.2d 1575 (Fed. Cir. 1993)

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```
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\begin{equation}
y = ax + b
\end{equation}
\end{linenomath*}
```

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