

INTRODUCTION

This template and class file “ascelike-new.cls” produce manuscripts that comply with the guidelines of the American Society of Civil Engineers (ASCE). It has been produced by [Overleaf](#) in conjunction with the ASCE, and is based on the unofficial “ascelike.cls” developed by Matthew R. Kuhn.

This template provides guidance on how to prepare your manuscript according to the ASCE requirements, including details on how to use various LaTeX commands to achieve the appropriate formatting. Additional template options are given in Appendix II. If you have any questions about this template, or need help with LaTeX, please [contact Overleaf](#) who can provide assistance as required.

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PREPARING YOUR MANUSCRIPT

Length

For most ASCE journals, the maximum length for technical papers and case studies is 30 double-spaced manuscript pages including references, figures, tables, and captions; 45 double-spaced manuscript pages for State-of-the-Art articles; 7 double-spaced manuscript pages for technical notes; and 4 double-spaced manuscript pages for discussions and closures. The editor may waive these restrictions to encourage manuscripts on topics that cannot be treated within these limitations. See the [“Publishing in ASCE Journals: A Guide for Authors”](#) for information on other article types.

General Flow of the Paper

Sections of the article should not be numbered and use word headings only. Article sections should appear in the following order:

- Title page content (includes title, author byline & affiliation, abstract)

- 49 • Practical Application (optional)
- 50 • Introduction
- 51 • Main text sections
- 52 • Conclusion
- 53 • Appendix(es)
- 54 • Data Availability Statement
- 55 • Acknowledgments (to include any funders)
- 56 • Disclaimers
- 57 • Notation list
- 58 • Supplemental Materials
- 59 • References

60 **Title**

61 Titles should be no longer than 100 characters including spaces. The title of a paper is the first
62 “description” of a paper found via search engine. Authors should take care to ensure that the title
63 is specific and accurately reflects the final, post-peer reviewed version of the paper. Authors should
64 try to include relevant search terms in the title of the paper to maximize discoverability online.
65 Titles should not begin with “A,” “An,” “The,” “Analysis of,” “Theory of,” “On the,” “Toward,” etc.

66 **Author Bylines**

67 Under the title of the manuscript, the full name of each author and his or her affiliation and
68 professional designation, if applicable, must be included. The following academic and professional
69 designations are currently acceptable for all journals: Ph.D., Dr.Tech., Dr.Eng., D.Sc., Sc.D., J.D.,
70 P.E., S.E., D.WRE, Hon.D.WRE, D.GE, D.CE, D.OE, D.PE, D.NE, NAE, DEE, P.Eng., CEng,
71 L.S., P.L.S., G.E., P.G., P.H., RA, AICP, and CPEng.

72 Former affiliations are permissible only if an author’s affiliation has changed after a manuscript
73 has been submitted for publication. If a coauthor has passed away, include the date of death in the
74 affiliation line. Any manuscript submitted without a separate affiliation statement for each author

75 will be returned to the corresponding author for correction.

76 **Gender-specific Words**

77 Authors should avoid “he,” “she,” “his,” “her,” and “hers.” Alternatively, words such as “author,”
78 “discusser,” “engineer,” and “researcher” should be used.

79 **Footnotes and Endnotes**

80 Footnotes and endnotes are not permitted in the text. Authors must incorporate any necessary
81 information within the text of the manuscript.

82 **Exception** - Endnotes are only permitted for use in the *Journal of Legal Affairs and Dispute*
83 *Resolution in Engineering and Construction*.

84 **SI Units**

85 The use of Système Internationale (SI) units as the primary units of measure is mandatory.
86 Other units of measurement may be given in parentheses after the SI unit if the author desires.
87 More information about SI units can be found on the [NIST website](#).

88 **Conclusions**

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

93 **Data Availability Statement**

94 When submitting a new and revised manuscript, authors are asked to include a data availability
95 statement containing one or more of the following statements, with specific items listed as appro-
96 priate. Please include one or more of the statements below, deleting those which do not apply. This
97 section should appear directly before the Acknowledgments section.

- 98 • Some or all data, models, or code generated or used during the study are available in a
99 repository online in accordance with funder data retention policies (provide full citations

100 that include URLs or DOIs)

- 101 • Some or all data, models, or code used during the study were provided by a third party (list
102 items). Direct requests for these materials may be made to the provider as indicated in the
103 Acknowledgements.
- 104 • Some or all data, models, or code that support the findings of this study are available from
105 the corresponding author upon reasonable request (list items).
- 106 • Some or all data, models, or code generated or used during the study are proprietary or
107 confidential in nature and may only be provided with restrictions (e.g. anonymized data)
108 (List items and restrictions).
- 109 • All data, models, and code generated or used during the study appear in the submitted
110 article.
- 111 • No data, models, or code were generated or used during the study (e.g., opinion or data-less
112 paper).

113 Please also see the guidelines at: <https://ascelibrary.org/page/dataavailability>.

114 **Acknowledgments**

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

118 Authors can include an Acknowledgments section to recognize any advisory or financial help
119 received. This section should appear after the Conclusions and before the references. Authors
120 are responsible for ensuring that funding declarations match what was provided in the manuscript
121 submission system as part of the FundRef query. Discrepancies may result in delays in publication.

122 **Mathematics**

123 All displayed equations should be numbered sequentially throughout the entire manuscript,
124 including Appendixes. Equations should be in the body of a manuscript; complex equations in
125 tables and figures are to be avoided, and numbered equations are never permitted in figures and

126 tables. Here is an example of a displayed equation (Eq. 1):

$$127 \quad E = mc^2 . \quad (1)$$

128 Symbols should be listed alphabetically in a section called “Notation” at the end of the
129 manuscript (preceding the references). See the following section for more details.

130 **Notation List**

131 Notation lists are optional; however, authors choosing to include one should follow these
132 guidelines:

- 133 • List all items alphabetically.
- 134 • Capital letters should precede lowercase letters.
- 135 • The Greek alphabet begins after the last letter of the English alphabet.
- 136 • Non-alphabetical symbols follow the Greek alphabet.

137 Notation lists should always begin with the phrase, “*The following symbols are used in this*
138 *paper:*”; acronyms and abbreviations are not permitted in the Notation list except when they are
139 used in equations as variables. Definitions should end with a semicolon. An example Notation list
140 has been included in this template; see Appendix I.

141 **Appendixes**

142 Appendixes can be used to record details and data that are of secondary importance or are
143 needed to support assertions in the text. The main body of the text must contain references to all
144 Appendixes. Any tables or figures in Appendixes should be numbered sequentially, following the
145 numbering of these elements in the text. Appendixes must contain some text, and need to be more
146 than just figures and/or tables. Appendixes containing forms or questionnaires should be submitted
147 as Supplemental Materials instead.

148 **SECTIONS, SUBSECTIONS, EQUATIONS, ETC.**

149 This section is included to explain and to test the formatting of sections, subsections, subsub-

150 sections, equations, tables, and figures.

151 Section headings are automatically made uppercase; to include mathematics or symbols in a section heading, you can use the `\lowercase{}` around the content, e.g. `\lowercase{\boldmathc^{2}}`.

153 **An Example Subsection**

154 No automatic capitalization occurs with subsection headings; you will need to capitalize the first letter of each word, as in “An Example Subsection.”

156 *An example subsubsection*

157 No automatic capitalization occurs with subsubsections; you will need to capitalize only the first letter of subsubsection headings.

159 **FIGURES AND TABLES**

160 This template includes an example of a figure (Fig. 1) and a table (Table 1).

161 **Figure Captions**

162 Figure captions should be short and to the point; they need not include a complete explanation of the figure.

164 **Figure Files**

165 Figures should be uploaded as separate files in TIFF, EPS, or PDF format. If using PDF format, authors must ensure that all fonts are embedded before submission. Every figure must have a figure number and be cited sequentially in the text.

168 **Color Figures**

169 Figures submitted in color will be published in color in the online journal at no cost. Color figures provided must be suitable for printing in black and white. Color figures that are ambiguous in black and white will be returned to the author for revision, and will delay publication. Authors wishing to have figures printed in color must indicate this in the submission questions. There is a fee for publishing color figures in print.

174 **Table Format**

175 The following is a guide to preparing tables as part of your submission

- 176 • Vertical rules should not be used in tables. Horizontal rules are used to offset column
177 headings at the top of the table and footnotes (if any) at the bottom of the table and to
178 separate major sections.
- 179 • All columns must have a heading. Each table should have only one set of column headings
180 at the top of the table. Using additional column headings within the body of the table should
181 be avoided.
- 182 • Photographs, sketches, line art, or other graphic elements are not permitted in tables. Any
183 table that includes graphics must be treated and numbered as a figure.
- 184 • Highlighting and shading are also not permitted and will not be reproduced in print. Bold-
185 face font should be used for emphasis sparingly.
- 186 • Equations are allowed in the table body, but should be avoided if possible. Numbered
187 equations are never allowed in tables.
- 188 • Tables should not be submitted in multiple parts (Table 1a, 1b, etc.). Tables with multiple
189 parts should either be combined into one table or split into separate tables.

190 **FIGURE, TABLE AND TEXT PERMISSIONS**

191 Authors are responsible for obtaining permission for each figure, photograph, table, map,
192 material from a Web page, or significant amount of text published previously or created by someone
193 other than the author. Permission statements must indicate permission for use online as well as in
194 print.

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196 permission status. Authors are responsible for paying any fees associated with permission to
197 publish any material. If the copyright holder requests a copy of the journal in which his or her
198 figure is used, the corresponding author is responsible for obtaining a copy of the journal.

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Supplemental Materials are considered to be data too large to be submitted comfortably for print publication (e.g., movie files, audio files, animated .gifs, 3D rendering files) as well as color figures, data tables, and text (e.g., Appendixes) that serve to enhance the article, but are not considered vital to support the science presented in the article. A complete understanding of the article does not depend upon viewing or hearing the Supplemental Materials.

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Supplemental Materials must be briefly described in the manuscript with direct reference to each item, such as Figure S1, Table S1, Protocol S1, Audio S1, and Video S1 (numbering should always start at 1, since these elements will be numbered independently from those that will appear in the printed version of the article). Text within the supplemental materials must follow journal style. Links to websites other than a permanent public repository are not an acceptable alternative because they are not permanent archives.

When an author submits supplemental materials along with a manuscript, the author must

226 include a section entitled “Supplemental Materials” within the manuscript. This section should be
227 placed immediately before the References section. This section should only contain a direct list
228 of what is included in the supplemental materials, and where those materials can be found online.
229 Descriptions of the supplemental materials should not be included here. An example of appropriate
230 text for this section is “Figs. S1–S22 are available online in the ASCE Library (ascelibrary.org).”

231 REFERENCES, CITATIONS AND BIBLIOGRAPHIC ENTRIES

232 ASCE uses the author-date method for in-text references, whereby the source reads as the last
233 names of the authors, then the year (e.g., Smith 2004 or Smith and Jones 2004). A References
234 section must be included that lists all references alphabetically by last name of the first author.

235 When used together, `ascelike-new.cls` and `ascelike-new.bst` produce citations and the
236 References section in the correct format automatically.

237 References must be published works only. Exceptions to this rule are theses, dissertations, and
238 “in press” articles, all of which are allowed in the References list. References cited in text that are
239 not found in the reference list will be deleted but queried by the copyeditor. Likewise, all references
240 included in the References section must be cited in the text.

241 The following citation options are available:

- 242 • `\cite{key}` produces citations with full author list and year (**Ireland 1954**).
- 243 • `\citeNP{key}` produces citations with full author list and year, but without enclosing
244 parentheses: e.g. **Ireland 1954**.
- 245 • `\citeA{key}` produces citations with only the full author list: e.g. (**Ireland**)
- 246 • `\citeN{key}` produces citations with the full author list and year, but which can be used as
247 nouns in a sentence; no parentheses appear around the author names, but only around the
248 year: e.g. **Ireland (1954)** states that . . .
- 249 • `\citeyear{key}` produces the year information only, within parentheses, as in (**1954**).
- 250 • `\citeyearNP{key}` produces the year information only, as in **1954**.

251 The bibliographic data base `ascexmpl-new.bib` gives examples of bibliographic entries for

252 different document types. These entries are from the canonical set in the ASCE web document
253 “Instructions For Preparation Of Electronic Manuscripts” and from the ASCE website. The
254 References section of this document has been automatically created with the `ascelike-new.bst`
255 style for the following entries:

- 256 • a book (Goossens et al. 1994),
- 257 • an anonymous book (Moody 1988),
- 258 • an anonymous report using @MANUAL (Federal 1991),
- 259 • a journal article (Stahl et al. 2004; Pennoni 1992),
- 260 • a journal article in press (Dasgupta 2008),
- 261 • an article in an edited book using @INCOLLECTION (Zadeh 1981),
- 262 • a building code using @MANUAL (International 1988),
- 263 • a discussion of an @ARTICLE (Vesilind 1992),
- 264 • a masters thesis using @MASTERSTHESIS (Sotiropulos 1991),
- 265 • a doctoral thesis using @PHDTHESIS (Chang 1987),
- 266 • a paper in a foreign journal (Ireland 1954),
- 267 • a paper in a proceedings using @INPROCEEDINGS (Eshenaur et al. 1991; Garrett 2003),
- 268 • a standard using @INCOLLECTION (ASTM 1991),
- 269 • a translated book (Melan 1913),
- 270 • a two-part paper (Frater and Packer 1992a; Frater and Packer 1992b),
- 271 • a university report using @TECHREPORT (Duan et al. 1990),
- 272 • an untitled item in the Federal Register using @MANUAL (Federal 1988),
- 273 • works in a foreign language (Duvant and Lions 1972; Reiffenstuhl 1982),
- 274 • software using @MANUAL (Lotus 1985),
- 275 • two works by the same author in the same year (Gaspar and Koenders 2001a; Gaspar and
276 Koenders 2001b), and
- 277 • two works by three authors in the same year that only share the first two authors (Huang
278 et al. 2009a; Huang et al. 2009b).

279 ASCE has added two types of bibliographic entries: webpages and CD-ROMs. A webpage
280 can be formatted using the @MISC entry category, as with the item (Burka 1993) produced with the
281 following *.bib entry:

```
282 @MISC{Burka:1993a,  
283     author = {Burka, L. P.},  
284     title = {A hypertext history of multi-user dimensions},  
285     journal = {MUD history},  
286     year = {1993},  
287     month = {Dec. 5, 1994},  
288     url = {http://www.ccs.neu.edu}  
289 }
```

290 Notice the use of the “month” field to give the date that material was downloaded and the use of a
291 new “url” field. The “url” and month” fields can also be used with other entry types (i.e., @BOOK,
292 @INPROCEEDINGS, @MANUAL, @MASTERSTHESIS, @PHDTHESIS, and @TECHREPORT): for example, in
293 the entry type @PHDTHESIS for (Wichtmann 2005).

294 A CD-ROM can be referenced when using the @BOOK, @INBOOK, @INCOLLECTION, or @INPROCEEDINGS
295 categories, as in the entry (Liggett and Caughey 1998). The field “howpublished” is used to des-
296 ignate the medium in the .bib file:

```
297     howpublished = {CD-ROM},
```

298

APPENDIX I. NOTATION

299

The following symbols are used in this paper:

D = pile diameter (m);

300

R = distance (m); and

$C_{Oh\ no!}$ = fudge factor.

APPENDIX II. LATEX TEMPLATE OPTIONS

The document class `ascelike-new.cls` provides several options given below. The `Proceedings|Journal|NewProceedings` option is the most important; the other options are largely incidental.

1. Options `Journal|Proceedings|NewProceedings` specify the overall format of the output manuscript.

`Journal` produces double-spaced manuscripts for ASCE journals. As default settings, it places tables and figures at the end of the manuscript and produces lists of tables and figures. It places line numbers within the left margin.

`Proceedings` produces older-style camera-ready single-spaced manuscripts for ASCE conference proceedings. The newer ASCE style is enacted with the `NewProceedings` option.

`NewProceedings` produces newer-style single-spaced manuscripts for ASCE conference proceedings, as shown on the ASCE website (*ca.* 2013). As default settings, `NewProceedings` places figures and tables within the text. It does not place line numbers within the left margin.

If desired, the bottom right corner can be “tagged” with the author’s name (this can be done by inserting the command `\NameTag{<your name>}` within the preamble of your document). All of the default settings can be altered with the options that are described below.

2. Options `BackFigs|InsideFigs` can be used to override the default placement of tables and figures in the `Journal`, `Proceedings`, and `NewProceedings` formats.
3. Options `SingleSpace|DoubleSpace` can be used to override the default text spacing in the `Journal`, `Proceedings`, and `NewProceedings` formats.
4. Options `10pt|11pt|12pt` can be used to override the default text size (12pt).
5. The option `NoLists` suppresses inclusion of lists of tables and figures that would normally be included in the `Journal` format.
6. The option `NoPageNumbers` suppresses the printing of page numbers.

- 328 7. The option `SectionNumbers` produces an automatic numbering of sections. Without the
329 `SectionNumbers` option, sections will *not* be numbered, as this seems to be the usual
330 formatting in ASCE journals (note that the Appendixes will, however, be automatically
331 “numbered” with Roman numerals). With the `SectionNumbers` option, sections and
332 subsections are numbered with Arabic numerals (e.g. 2, 2.1, etc.), but subsubsection
333 headings will not be numbered.
- 334 8. The options `NoLineNumbers|LineNumbers` can be used to override the default use (or
335 absence) of line numbers in the `Journal`, `Proceedings`, and `NewProceedings` formats.

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402 **List of Tables**

403 1 An example table 20

TABLE 1. An example table

Assembly Attribute (1)	Values (2)
Number of particles	4008
Particle sizes	Multiple
Particle size range	$0.45D_{50}^*$ to $1.40D_{50}$
Initial void ratio, e_{init}	0.179
Assembly size	$54D_{50} \times 54D_{50} \times 54D_{50}$

* D_{50} represents the median particle diameter

404

List of Figures

405

- 1 An example figure (just a box). This particular figure has a caption with more information than the figure itself, a very poor practice indeed. A reference here

406

407

([Stahl et al. 2004](#)). 22

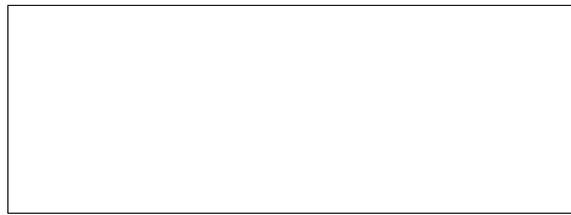


Fig. 1. An example figure (just a box). This particular figure has a caption with more information than the figure itself, a very poor practice indeed. A reference here ([Stahl et al. 2004](#)).