Manuscript title (only the first letter of the sentence should be capitalized)

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Main text word count (including appendices, but excluding abstract, references, etc.): 0000 (instructions below and in the journal's guide for authors)

Number of figures: 00 (single column) + 00 (double column) = 000 words

Number of tables: 00 (single column) + 00 (double column) = 000 words

Abstract: Please provide an abstract between 150 and 250 words in length. Abbreviations or acronyms should be avoided. The abstract should state briefly the purpose of the work, the main results and major conclusions or key findings. The abstract should be written in a single paragraph. The line numbering should initiate on the first line of the abstract.

Keywords: Friction piles; Concrete-faced rockfill dams; Material point method; Bender element test (three to six keywords separated by dot comma).

1. Introduction

The text must be presented in a single column, using ISO A4 page size, left, right, top, and bottom margins of 25 mm, Times New Roman 12 pt. font, and line spacing of 1.5. A spacing of 10 pt. after the paragraph is suggested. All lines and pages should be numbered. The line numbering should initiate on the first line of the Abstract.

Full-length manuscripts (Article, Case Study) should be between 4,000 and 8,000 words. Review articles should have up to 10,000 words. Technical Notes have a word count limit of 3,500 words while Discussions have a word count limit of 1,000 words. These word count limits exclude the title page, notation list (e.g., symbols, abbreviations), acknowledgments and references. Figures are considered to be equivalent to the number of words described in Section 2.1.1. The number of references should not exceed 30% of the maximum allowed word count. Exceptions may be granted when justified by the manuscript's scope, novelty, or other criteria related to its quality.

For complete instructions, please refer to the Guide for Authors.

2. Materials and methods

The author(s) must upload a single digital file of the manuscript to the Soils and Rocks submission system. The size limit for submission file is 20 MB. The manuscript should be submitted in docx format (Word 2007 or higher) or doc format (for older Word versions). An additional PDF format file of the manuscript is also required upon submission. Currently, the journal is not accepting manuscripts prepared using LaTeX.

A maximum of three levels of titles is suggested.

Note that word styles have been created for formatting the text:

- "S&R_Heading 1, 2 and 3": used in the title page;
- "S&R_Title 1, 2 and 3": for the titles within the main text;
- "S&R_Standard": the main text format;

- “S&R_List”, “S&R_Caption” and “S&R_Fig_Tab”: for formatting lists, captions, figures and tables.

2.1. Figures, tables and equations

Figures, tables and equations should always be cited in the text and should be numbered in the sequence that they are mentioned in the text. Do not abbreviate “Figure”, “Table” and “Equation” when making cross-references.

2.1.1. Figures

Each figure should be submitted as a high-resolution image, according to the following mandatory requirements:

- Figures created as a TIFF or JPEG file format with minimum resolution of 500 dpi.
- Use Times New Roman for figure lettering. Use lettering sized 8-10 pt. for the final figure size.
- Lines should have 0.5 pt. minimum width in drawings.
- Titles or captions should not be included inside the figure itself.
- Size the figures according to their final intended size. Single-column figures should have a width of up to 82 mm. Double-column figures should have a maximum width of 170 mm.
- Figures should be sized according to the standard column formats illustrated in the examples of Figure 1. Four typical figure sizes are accepted: a small single-column figure equivalent to approximately 150 words (Figure 1a), a double-column figure equivalent to 300 words (Figure 1b), a tall single-column figure also equivalent to 300 words (Figure 1c), and a full-page double-column figure equivalent to 600 words (Figure 1d). Figures do not need to exactly match the sizes shown in the examples; however, for the purpose of word count, authors should use the word equivalent that most closely

corresponds to the actual size of their figure. All figures must remain within the page margins.

An example of a high-quality image is presented in Figure 1.

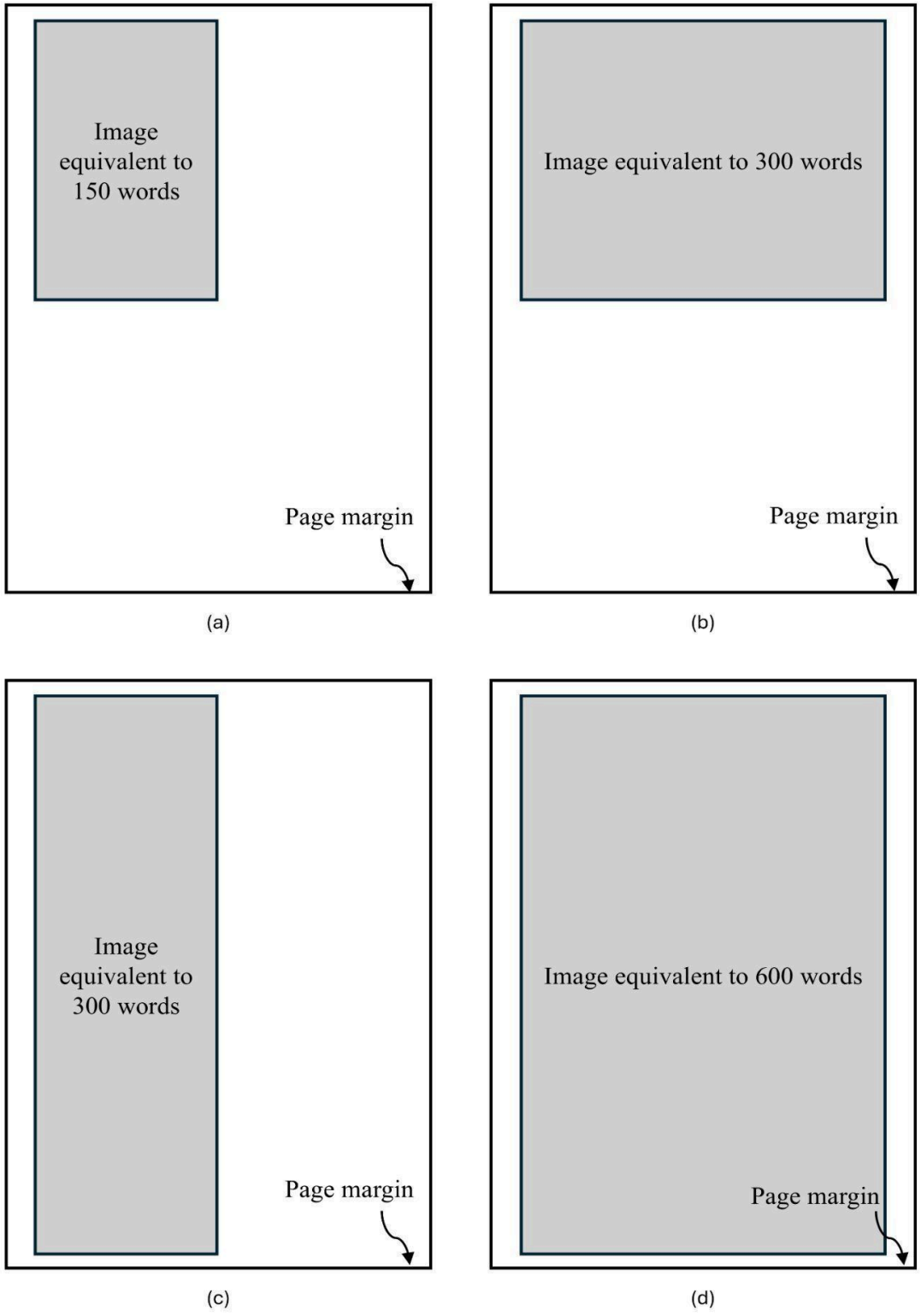


Figure 1. Standard figure sizes and their approximate word count equivalents: (a) small single-column - 150 words, (b) double-column figure - 300 words (c) tall single-column figure - 300 words, and (d), full-page double-column figure - 600 words.

Figures must be embedded centrally aligned in the text near the position where they are first cited. Cite figures in the manuscript in consecutive numerical order. Denote figure parts by lowercase letters (a, b, c, etc.). Please include a reference citation at the end of the figure caption for previously published material. Authorization from the copyright holder must be provided upon submission for any reproduced material.

Various software can be used to increase the resolution of a picture. One of the available software is the GIMP (https://www.gimp.org/), which is free.

Authors must consider the need to make their color figures accessible for reviewers and readers that are colorblind. For that, the freeware softwares GIMP and Vischeck (available at http://www.vischeck.com) show how the images would be perceived by the colorblind.

All figures are published in color for the electronic version of the journal; however, the print version uses grayscale. Please format figures so that they are adequate even when printed in grayscale.

2.1.2. Tables

Tables should be presented as a MS Word table with data inserted consistently in separate cells. Place tables in the text near the position where they are first cited.

Any previously published material should be identified by giving the original source as a reference at the end of the table caption. Additional comments may be placed as footnotes, indicated by superscript lowercase letters, exclusively to complement information within tables. The use of footnotes in the main body of the manuscript is not permitted; all essential information must be fully integrated into the main text.

When applicable, the units should come right below the corresponding column heading. Horizontal lines should be used at the top and bottom of the table and to separate the headings row. Vertical lines should not be used.

Table captions must be placed above the table and start with the term “Table” followed by the table number and a period. Table 1 presents an example of a double column table. For a single column table example, see Table 2.

Table 1. Analysis results (Massad, 2015).

Type of test	Pile	K_r (kN/mm)	c	c'	k	$c'.k$	Pile behavior
Conventional	CFA (E-46)	442	0.59	0.41	12.3	5.0	Long or compressible
Bidirectional	CFA (E-46A)	505	0.57	0.43	7.6	3.3	Long or compressible
Bidirectional	Omega (PC-02)	906	0.58	0.42	0.2	0.1	Short or rigid
Bidirectional	Omega (PC-07)	1069	0.58	0.42	0.2	0.1	Short or rigid
Bidirectional	Bored (Puerto Rico)	795	0.50	0.50	1.6	0.8	Short or rigid
Bidirectional	Bored (Mississipi)	614	var.	var.	0.9	var.	Short or rigid
Bidirectional	Bored (Tucson)	4414	0.80	0.20	4.4	0.9	Intermediate

Legend: see List of Symbols.

Table 2. Application of the approximate formulae to E 46A CFA pile (Massad, 2015).

y'_p (mm)	Q_p (kN)	A_1 (kN)	P_o (kN)	y_o (mm)
0.00	0	0	0	0.00
0.09	50	836	886	1.13
0.11	55	892	947	1.23
0.13	65	945	1010	1.33
0.15	70	995	1065	1.41
0.17	75	1042	1117	1.50
0.21	80	1128	1208	1.64
0.24	93	1185	1278	1.76
0.28	96	1255	1351	1.89
0.34	100	1345	1445	2.06
0.42	140	1442	1582	2.33
0.85	200	1442	1642	2.88
3.85	500	1442	1942	6.47

2.1.3. Equations and symbols

Equations must be submitted as editable text, created using MathType or the built-in equation editor in MS Word. All variables must be presented in italics.

Equations must appear isolated in a single line of the text. Numbers identifying equations must be flushed with the right margin. International System (SI) units must be used. The definitions of the symbols used in the equations must appear in the List of Symbols.

An example is presented in Equation 1, proposed by Massad (2015).

$$\Delta e = \frac{c' \cdot A_l}{K_r} \quad (1)$$

2.2. Citations

References to other published sources must be made in the text by the last name(s) of the author(s), followed by the year of publication. If that publication has more than two authors the expression “et al.” should be used. See the following examples: Massad (2015), Alipoori et al. (2022), Leonards & Lovell (1979).

All cited fonts should be included in the “References” section. A customized style for the Mendeley software is available and may be downloaded from the link given in the Guide for Authors.

Full references must be listed alphabetically at the end of the text by the first author’s last name. Several references belonging to the same author must be cited chronologically. Provide DOI (Digital Object Identifier) whenever available.

3. Analysis and results

The topic order in this template (“Introduction”, “Materials and Methods”, “Analysis and Results” and “Conclusions”) does not necessarily have to be the section headings of your manuscript.

4. Conclusion

The conclusion section should include a summary of the main findings of the paper.

Acknowledgements

Briefly acknowledge other contributions to the paper including funding institutions. Please refer to the Journal's guidelines for authors.

Soils and Rocks is very grateful to Thaís Lucouvicz Dada for the dedicated preparation of this template. Professor Faiçal Massad's kind assistance in the preparation of the template is also truly appreciated.

Declaration of interest

Authors are required to disclose conflicting interests that could inappropriately bias their work. For that end, a section entitled "Declaration of interest" should be included. In case of the absence of conflicting interests, the authors should still include a declaration of interest, for which the following example could be used:

The authors have no conflicts of interest to declare. All co-authors have observed and affirmed the contents of the paper and there is no financial interest to report.

Authors' contributions (authors are required to include an author statement outlining their individual contributions to the paper according to the CRediT taxonomy, as per https://credit.niso.org - see the examples below)

Name of Author 1: Conceptualization, Data curation, Visualization, Writing – original draft. Name of Author 2: Conceptualization, Data curation, Methodology, Supervision, Validation, Writing – original draft. Name of Author 3: Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software. Name of Author 4: Supervision, Validation, Writing – review & editing.

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The symbols, tables and equations in this template are credited to Faiçal Massad.

Data availability (this section is mandatory – examples are presented below)

The datasets generated analyzed in the course of the current study are available from the corresponding author upon request.

Data generated and analyzed in the course of the current study are available in the [Repository Name] repository, [persistent link].

No dataset was generated or evaluated in the course of the current study; therefore, data sharing is not applicable.

All data produced or examined in the course of the current study are included in this article.

Data generated and analyzed in the course of the current study are not publicly available due [reason(s)] but a complete or limited dataset can be made available by [dataset owner; recipient] [upon reasonable request].

The data used in the current study are available from [dataset owner; recipient] [but restrictions apply to the availability of these data – explain reason(s)].

Declaration of use of generative artificial intelligence (this section is mandatory – example of statement is presented below)

This work was prepared with the assistance of generative artificial intelligence (GenAI) [specify the name of the tool/service] with the aim of [specify how GenAI was used and for what elements of the manuscript]. The entire process of using this tool was supervised, reviewed and when necessary edited by the authors. The authors assume full responsibility for the content of the publication that involved the aid of GenAI.

This work was prepared without the assistance of any generative artificial intelligence (GenAI) tools or services. All aspects of the manuscript were developed solely by the authors, who take full responsibility for the content of this publication.

List of symbols and abbreviations (include here the list of notations, e. g., symbols and abbreviations. List lower case characters first, then upper case. Latin alphabet characters must appear before Greek alphabet characters.)

c Leonards & Lovell (1979) Coefficient (all references should be included)

c' Massad (2015) Coefficient; correlate of c for bidirectional tests

k Relative stiffness of the pile-soil (shaft) (the symbols are recommended to be in accordance with Lexicon in 14 Languages (ISSMGE, 2016) and the ISRM (1970)

A_l Total lateral (shaft) load (symbols should be written in *italic font*)

K_r Pile stiffness, as a structural piece

P_o Vertical load at the pile head

Q_p Toe load

y'_p Movements of the pile top (Bidirectional test)

y_o Movements of the pile at head

Δe Elastic pile shortening

ρ Elastic rebound measured at the pile head

References (Citing recent papers from Soils and Rocks is valuable for demonstrating the manuscript's alignment with the journal's scope. However, an unusually high proportion of references from a single journal, particularly the publishing one, might be misinterpreted as an unethical effort to inflate its impact factor. Consequently, authors are advised to limit citations from Soils and Rocks to a maximum of 20% of their total reference list.)

Alipoori, S.M., Lashkaripour, G.R., Ghafoori, M., & Moghadas, N.H. (2022). Effect of engineering geological properties on dam type selection of the Qadis Khordak Dam, Afghanistan. *Soils and Rocks*, in press.

Araki, M.S. (1997). Aspectos relativos às propriedades dos solos porosos colapsíveis do Distrito Federal [Master's dissertation]. University of Brasília (in Portuguese). Thesis or dissertation in language other than English that is not available on-line in the institution's repository. Use official title in English only when available in the document.

Chow, F.C. (1997). Investigations into the behaviour of displacement pile for offshore foundations [Doctoral thesis, Imperial College London]. Imperial College London's repository. https://spiral.imperial.ac.uk/handle/10044/1/7894. Thesis or dissertation in English, available on-line in the institution's repository.

Cruz, P.T., Lacerda, W.A., & Soares, E.P. (1978). Ábacos para análise paramétrica de estabilidade ao escorregamento de barragens de concreto do tipo gravidade – II. *Solos e Rochas*, 1(2), 23–54 (in Portuguese). Journal Article in language other than English.

ISSMGE (2016). Introduction: ISSMGE Lexicon. Retrieved in March 31, 2021, from https://www.issmge.org/lexicon.

ISRM (1970). ISRM List of Symbols. *ISRM*, *Lisbon*.

Leonards, G.A., & Lovell, D. (1979). Interpretation of load tests on high-capacity driven piles. *Proc. Behavior of Deep Foundations,* Boston. ASTM International, 388–415. https://doi.org/10.1520/STP33741S. Provide DOI whenever available.

Massad, F. (2015). On the interpretation of the bidirectional static load test. *Soils and Rocks*, 38(3), 249–262.

Poiate Jr, E. (2012). Rock mechanics and computational mechanics for the design of oil wells in salt zones [Doctoral thesis, Pontifical Catholic University of Rio de Janeiro]. Pontifical Catholic University of Rio de Janeiro's repository (in Portuguese). https://doi.org/10.17771/PUCRio.acad.34904. Thesis or dissertation in language other than English available on-line in the institution's repository. Use official title in English when available in the document.

Please refer to the journal's guidelines for additional formatting examples.

Appendix (for more than one appendix section, organize the titles with letters, such as Appendix A, Appendix B, and so on)

Use the Appendix when necessary to provide supporting or supplementary information that is part of the study (e.g. tables, graphs, or datasets). The Appendix should be placed after the References. For more than one appendix, organize the titles with letters like Appendix A, Appendix B, and Appendix C.