

2024 Design Proposal Requirements and Rubric

All teams are required to submit **only one** design proposal. This design proposal is used to determine which teams are invited to compete in the Seismic Design Competition. **Remember, the SLC retains the ability to restrict the number of invited teams due to time limitations and space availability at the conference venue. Therefore, please pay particular attention to your proposal.**

This document describes items that must be included in the design proposal and provides guidelines for teams to submit a high-quality proposal. Scoring of the proposals will be based on the requirements and rubric provided in this document. This document does not override the Official Rules; it is meant to supplement the official rules by providing formatting and content requirements of the design proposal.

1. Formatting Requirements

- **The proposal shall not exceed 5 pages**, including the title page. Any proposal exceeding the page limit will not be scored.
- The proposal must be 11pt, single-spaced, US Letter (8.5 in x 11 in), Times New Roman font with 1-inch margins.
- Any deviation from the formatting requirements will result in substantial deductions from the proposal score at the discretion of the SDC chairs.

2. Plagiarism Requirements

- Plagiarism is strictly prohibited and may result in disqualification or non-invitation to compete. Any citation style is accepted, as long as it is consistent. Works Cited or References pages are required but do not count toward the page limit. See **Section 5.1** of the Official Rules for more information.

3. Page Content Requirements

- **Page 1: Title Page**
 - Name of the school, overall computer-generated image of the exposed structural system (an optional computer-generated image of the final architectural state may also be included), names of all team members and the designated team captain. (Note: the designated team captain will be the only point of contact between the team and the SDC Chairs from the start of the design to the completion of the competition).
- **Pages 2 - 5: Proposal Content**
 - Proposals will be judged on the following:
 - A summary of the site conditions and seismic activity expected for Seattle, Washington (e.g., soil types, historic earthquakes, major fault lines, magnitude and shaking expected for future earthquakes, etc.). This summary should address how these items impact the foundation and seismic design considerations.
 - The seismic Site Class corresponding to the location of your structure must be determined and included as part of the proposal in accordance with Table 20.2-1 of ASCE 7-16 or ASCE 7-22. Additionally, the possibility of liquefaction and lateral spreading at the site should be addressed using the provided geotechnical information provided on the competition website.

2024 Design Proposal Requirements and Rubric

- A summary of geotechnical considerations and solutions for construction adjacent to other structures.
 - Selection of at least 11 ground motions representative of **GM#2**, which represents the Risk-Targeted Maximum Considered Earthquake (MCE_R) as defined in ASCE 7-16 and ASCE 7-22. Please provide a brief description of how the team selected the ground motions, a table with their relevant metadata and a figure showing the response spectra of the selected ground motions compared to the target GM#2 (i.e., MCE_R).
 - Description of the structural system and elaboration on the plans for predicting the structural behavior (computer modeling, small-scale testing, etc.)
 - Explanation of how the client's architectural requirements (as detailed in **Section 1.3** of the Official Rules) will be met and any other economic or environmental considerations. The predicted weight of the balsa wood model should be provided as an economic consideration.
 - Professionalism demonstrated through concise and clear writing with a good command of grammar and spelling.
 - Proposed damping devices may be included in the proposal but are not necessary. Final approval of the damping devices must be made through the Damping Device Approval Process (**Section 7.2** of the Official Rules).
 - Diagrams and photos are recommended but must fit within the page limit.
 - For additional information, please see the rubric at the end of this document.
- **Page(s) 5(+): Works Cited**
 - Teams must cite the references that they use in creating their proposal.
 - No additional content for the proposal may be included on the Works Cited page(s).

4. Submission Requirements

A PDF of the document must be emailed to the SDC Chairs at the following email address by the date listed on the competition website. The SDC Chairs will confirm the submission within 48 hours of receiving it. If the team does not hear back from the SDC Chairs, please reach out to confirm the submission was received.

sdc@eeri.org

Teams are not bound to the designs submitted in the design proposal process. Design proposals are not evaluated for rule violations. Selected designs are still subject to penalization or disqualification. Teams are responsible for ensuring that their buildings follow the competition rules. For any clarification, refer to the clarifications section on the competition website, or the team captain can submit a clarification request (See **Section 11** of the Official Rules).

2024 Design Proposal Requirements and Rubric

5. Rubric

This rubric is intended to serve as a guide to describe how teams can perform better in each category of the design proposal.

Category/Description	An excellent proposal...	A poor proposal...	Points
Title Page: Name of school, overall computer-generated image of the exposed structural system, names of all team members and the designated team captain	contains all required items, neatly arranged on the title page	is missing one or more items	Req'd
Project Description: Description and overview of project and objectives	has a completely developed project overview and clearly addresses the project objectives; succinctly highlights major points	has simplistic or unfocused ideas; is unclear on the purpose of the project; goes into excessive detail on some points	5
Architectural Description: Inspirations, innovative and environmentally friendly features, renderings, etc.	explains inspiration; details innovative and environmentally friendly or socially friendly features; demonstrates effective integration into the urban fabric and city culture; pictures or diagrams are meaningful	lacks inspiration; does not have or explain innovative features; does not fit into the urban fabric or context; contains excessive or unrelated illustrations; contains filler / is off-topic	15
Geotechnical/Site Description: Soil condition and expected seismicity at the proposed site location	describes expected soil conditions, including types, expected strength, and potential challenges; describes the expected seismic activity (major faults, historic earthquakes, magnitude and shaking of future events); addresses how these items impact foundation and seismic design considerations; provides correct seismic Site Class; discusses liquefaction and lateral spreading	demonstrates limited understanding of the site and the unique challenges it poses; has limited, inaccurate or overly broad descriptions of the site conditions and seismic history; link between the conditions and the design is not discussed or is unclear; seismic Site Class is incorrect or not included; does not mention liquefaction or lateral spreading	15
Structural Description: Design considerations, key structural features or systems, structural drawings/sketches, innovative details	accurately identifies and explains effective structural systems and details and their purpose in the context of achieving the project objectives; effectively integrates engineering drawings to describe features	has poor or inaccurate descriptions of structural systems and details; little thought put into the design of the structural system; little sense of purpose in the context of the project boundaries and objectives; contains excessive or unrelated illustrations; contains filler / is off-topic	15

2024 Design Proposal Requirements and Rubric

Category/Description	An excellent proposal...	A poor proposal...	Points
Structural Description: Design considerations, key structural features or systems, structural drawings/sketches, innovative details	accurately identifies and explains effective structural systems and details and their purpose in the context of achieving the project objectives; effectively integrates engineering drawings to describe features	has poor or inaccurate descriptions of structural systems and details; little thought put into the design of the structural system; little sense of purpose in the context of the project boundaries and objectives; contains excessive or unrelated illustrations; contains filler / is off-topic	15
Ground Motion Selection: Brief description of the procedure and selected ground motion set.	briefly describes how the teams selected a set of at least 11 ground motions representative of GM#2 as defined in the Official Rules and presents a table listing the selected ground motions with their metadata (earthquake, station, year, magnitude, distance) and scale factors, as well as a figure showing their response spectra compared to the target spectrum for GM#2 .	does not describe how the team selected the ground motions, does not provide their metadata, or fails to perform a ground motion selection representative of GM#2 .	15
Predicted Structural Behavior: Explanation of your strategy to predict the structural behavior	provides a clear and meaningful explanation of the method for predicting the structural behavior (computer modeling, small-scale testing, etc.)	has unclear or illogical explanations of how the structural behavior will be predicted; contains filler / is off-topic	10
Economic Considerations: Economic achievements, material efficiency, etc.	has compelling financial incentives for the owner to choose your design; provides the predicted weight of the structure to demonstrate material efficiency	has poor or unconvincing financial incentives; contains filler / is off-topic	7
Writing: Grammar, spelling, clarity, punctuation, sentence structure, word choice	is essentially free of grammar and spelling errors; each sentence is structured effectively; has good range and accuracy of vocabulary	has many grammatical and spelling mistakes; contains poor sentence structure; vocabulary is extremely limited or terms are used incorrectly	8
Organization and Presentation	is logically organized with effective, smooth, and logical transitions; contains meaningful pictures or diagrams; formatted like a professional document	poorly organized; content lacks effective transitions and flow; contains irrelevant, ineffective, excessive, and/or unprofessional pictures or diagrams; is not formatted appropriately	10
Works Cited or Reference Page: does not count for the page limit	is consistent in format and all references or citations are correctly cited	is inconsistent in format or not included in proposal	Req'd