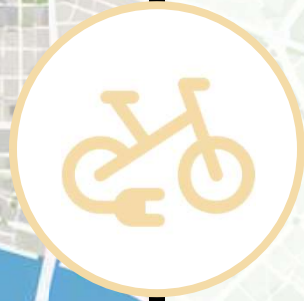


# 2027 RULES SURFACE MOBILITY GRANT



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Version 1, published September 8, 2026

## Welcome to the ASCE Sustainable Solutions Competition

The American Society of Civil Engineers (ASCE) supports and encourages a fully inclusive culture that celebrates individual uniqueness, engenders a sense of belonging, and promotes equitable opportunity for all people to participate in the ASCE Sustainable Solutions Competition. (See ASCE [Policy statement 417 - Justice, equity, diversity, and inclusion](#)) Participation should be inclusive, open, and fair to all interested and eligible students. Welcome!

### **Mission Statement**

The ASCE Sustainable Solutions Competition (SSC) inspires students to solve realistic problems in the civil engineering realm by stimulating the development of knowledge in sustainable practices on a platform that encourages multi-disciplinary collaboration.

*The SSC encourages students to be innovative and creative and use all resources available to deliver outstanding sustainable solutions that integrate engineering and natural systems working in harmony for the benefit of humanity.*

### **Acknowledgments**

Thank you to the following for supporting this competition!

- The volunteer ASCE SSC Rules Committee members
- ASCE Headquarters staff
- Institute for Sustainable Infrastructure
- Trimble SketchUp
- You! You and your team are the ones bringing this competition to life

## Section 1. Competition Overview and Intent

This year's competition will be a simulated competitive grant application. Teams will emulate a municipality, transportation planning organization, special district, or other government public authority (herein, referred to as "local agency") and propose real-life projects that they would like to see implemented using sustainable practices within their own communities.

*In practice, governmental authorities and non-profit organizations may announce grants available for local leadership to deliver projects and programs with broad and overarching goals set by the grant program.*

*The grant program described herein is fictional and is meant to provide the framework for this year's ASCE Sustainable Solutions Competition. ASCE does not have the actual funds available for proposed project implementation.*

## Section 2. Participation and Eligibility

### **2.1 Team Member Requirements**

Team members must be:

1. Undergraduate students enrolled during all or part of the current competition academic year,
2. Members of an ASCE Student Chapter in good standing,
3. Society Student Members of ASCE. ([Society student membership is free; be sure to join](#)).

*Graduate students are encouraged to serve as advisors.*



*It is an expectation that teams will reflect diversity, foster an inclusive culture, and treat everyone with dignity and respect.*

## **2.2 Team Requirements**

Only one team per ASCE Student Chapter may compete in the competition. Each team must designate a team captain. A student chapter may compete in only one ASCE student symposium per year.

[Conference assignments and student symposium hosts are listed here.](#)

### Official Guest Teams

ASCE Student Chapters hosting student symposia may invite Official Guest teams, which are teams from Region 10 that have an official ASCE Student Chapter not yet assigned to any Student Conference. Official Guest teams are eligible to place and receive awards at the student symposium competition and be invited to the Society-wide finals competition (if they meet the other requirements, including eligibility requirements). Official Guest teams may compete in only one student symposium per year. ASCE Student Programs shall be notified by the student symposium host of an Official Guest team prior to the start of the student symposium via email to [student@asce.org](mailto:student@asce.org).

### Exhibition Teams

A university group that is in the establishment phase of becoming an ASCE Student Chapter may request to compete at their potential future ASCE Student Symposium as an exhibition team. If the student symposium host grants permission, the exhibition team may compete.

An ASCE Student Chapter team wanting to enter a competition that is NOT being hosted at their assigned student symposium may request to compete at another ASCE Student Symposium as an exhibition team. If the student symposium host grants permission, the exhibition team may compete.

An ASCE Student Chapter team wanting to enter a competition that is being hosted at their assigned student symposium but has circumstances that prevent participation at their assigned student symposium may contact ASCE Student Programs ([student@asce.org](mailto:student@asce.org)) with a description of the circumstances to explore options.

Exhibition teams will be scored but shall not be ranked or win awards at the student symposium competition.

Exhibition teams will not be eligible to advance to Society-wide finals competition based on competition placement.

## **2.3 Levels of Competition and Society-wide finals Eligibility**

There are two levels of competition:

1. student symposium, and
2. Society-wide finals.

Eligibility criteria for student symposium participation and Society-wide finals participation are shown in Appendix E.

The highest-ranking eligible team at the student symposium competition will receive an invitation to the Society-wide finals competition.

The Society-wide finals current year host school will be invited to compete in the Society-wide finals competition. They will have the choice of either competing in the year that they host the Society-wide finals or the following year. They must:

1. Compete at their respective student symposium competition and meet eligibility requirements within the same year that they intend to compete in the Society-wide finals competition; and

2. Within seven calendar days of the end of their student symposium during the year that they host, notify ASCE Student Programs of which year they intend to compete at the Society-wide finals competition.

The SSC Rules Committee reserves the right to invite additional teams to the Society-wide finals competition. If wildcards are used to invite additional teams, the wildcard selection process will be posted on the [ASCE Sustainable Solutions Competition Collaborate site](#).

The SSC Society-wide finals competition will be held in conjunction with other Society-wide finals competitions at the 2027 ASCE Civil Engineering Student Championships, June 17-19, 2027, at Kansas State University in Manhattan, Kansas.

## **2.4 Post-Student Symposium Verification of Competition Results**

Once scores of the student symposium competition are finalized, the Head Judge must promptly upload the completed official scoring spreadsheet to ASCE's Cerberus files transfer protocol (ftp) server (see Appendix F for Cerberus Upload Guidance). ASCE will only invite teams to the Society-wide finals competition once ASCE receives this spreadsheet and confirms eligibility.

## **2.5 Awards and Recognition**

The top teams at each ASCE student symposium will receive recognition.

At the ASCE Sustainable Solutions Competition Society-wide finals, ASCE shall award the following to the winning teams' ASCE Student Chapter:

- 1st place overall winner: \$1,500 prize and trophy
- 2nd place overall winner: \$1,000 prize and trophy
- 3rd place overall winner: \$500 prize and trophy

# **Section 3. Conduct**

## **3.1 Professionalism**

This competition is to be conducted with the highest regard for ethical responsibility per [ASCE's Code of Ethics](#). All members of ASCE, regardless of their membership grade or job description, commit to all the ethical responsibilities in this Code. All ASCE members should make themselves familiar with ASCE's Code of Ethics.

All participants shall act professionally and respectfully at all times. Failure to act appropriately may result in sanctions, disqualifications, and loss of invitations to future student symposia competitions or Society-wide finals competitions. The inappropriate use of language, alcohol, or materials, uncooperativeness, and general unprofessional or unethical behavior will not be tolerated.

### Plagiarism

The ASCE Sustainable Solutions Competition will not tolerate plagiarism of any kind, intentional or unintentional. No use of copyrighted or trademarked materials is permitted without written authorization from the copyright or trademark owner.

Submitted proposals may be screened for plagiarism or unauthorized use at the discretion of the judges or the SSC Rules Committee.

Plagiarism or unauthorized use are grounds for disqualification. If plagiarism or unauthorized use is suspected, the SSC Rules Committee will make the final determination regarding disqualification.

### Use of Artificial Intelligence

The SSC Rules Committee does not encourage nor discourage the use of generative artificial intelligence (AI) and natural language processing (NLP) models in teams' grant application development.

However, teams must clearly cite instances or portions of work as completed by the respective generative AI/NLP when used to generate for a substantially progressed product (generated outlines or grammar checks would not be considered substantial progression). Failure to cite all instances of generative AI/NLP use will be considered plagiarism for this competition.

Additionally, all uses of AI/NLP must be documented in the grant application package (see Section 7.7).

### 3.2 Safety

Safety is the highest priority; behaviors that increase the risk of or cause personal injury will not be tolerated. Judges and student symposium hosts, including Safety Officers, are empowered to stop or prohibit an activity which is deemed to be hazardous, or to postpone an activity until the hazard is rectified. All participants are responsible for complying with all campus/venue protocols and procedures, including those deemed necessary for public health purposes.

Hosts may coordinate with ASCE to provide and activate virtual competition provisions if determined necessary for the safety of participants.

While the SSC is typically held indoors, if there is a thunderstorm, all outdoor activities shall cease and may not resume until at least 30 minutes have passed since the last observed occurrence of thunder or lightning.

## Section 4. Application Questions

Teams can submit application questions through the [2027 ASCE Sustainable Solutions Competition Application Questions Form](#). **The Application Questions form will close Wednesday, February 3, 2027, at 11:59 p.m. Eastern Standard Time (EST).**

The SSC Rules Committee will post corresponding answers on the [ASCE Sustainable Solutions Competition Collaborate site](#) within approximately 14 days of receipt, starting September 25, 2026 until February 12, 2027. **The answers to submitted application questions are considered part of the rules.**

*ASCE single sign-on (SSO) credentials may be required to access the ASCE SSC Collaborate site. Credentials / an account can be created after joining as a student member (see Section 2.1).*

*Each team should regularly check the ASCE SSC Collaborate site to review the application questions and answers posted to-date, including before submitting their own question; your team's question may have already been answered in another answer.*

Based on application questions and other rules developments, the SSC Rules Committee may issue errata or addenda. The SSC Rules Committee will notify teams of such changes via the ASCE SSC Collaborate site by February 12, 2027.

The Application Questions form collects team (i.e. school name) and team member information. Teams submitting 6 or more questions will have their school name revealed for all questions they have submitted. Teams with less than 6 questions submitted will have their school name remain anonymous. Team member information will remain anonymous in any case. *The SSC Rules Committee may determine that a team's submitted question actually constitutes multiple questions.*

*The SSC Rules Committee acknowledges that the application questions deadline will likely be before the student symposium submission deadlines; teams should thoroughly review this document in its entirety early on, and submit any questions as soon as possible.*

*If teams have any questions regarding rules or need clarification to confirm they are interpreting a portion of the rules correctly, then they should submit a question. Otherwise, interpretations will be up to the judging team and may result in deductions. "Ask, don't assume."*

*On the other hand, all questions submitted will receive an answer; teams should be mindful about asking for information that may reveal proprietary strategies to all SSC teams.*

*Training and resources questions should be posted via 'Discussion' to the ASCE SSC Collaborate site.*

## Section 5. Grant Program

*The following is a fictional grant program.*

### 5.1 Grant Program Overview

The Sustainable Urban Solutions Foundation is pleased to announce the opening of applications for the 2027 Sustainable Surface Mobility Grant program. This program was created to support ASCE's mission: to lead the civil engineering profession to sustainably advance and protect the health, safety, and welfare of all, and to inspire, connect, and serve its global membership.

The Sustainable Urban Solutions Foundation has allocated \$75 million for the 2027 Sustainable Surface Mobility Grant program. The grants are intended to improve quality of life, demonstrate leadership in sustainable project delivery, demonstrate effective allocation of resources, improve the natural world, and improve local resiliency, in alignment with the Institute of Sustainable Infrastructure's Envision framework. While the grant's focus will be on surface mobility, the Sustainable Urban Solutions Foundation would like to see how the project can be multidisciplinary within the civil engineering domain and overall engineering domain.

Grant applications will first be screened at a regional level (student symposium), where the top qualifying grant application from each student symposium, as well as additional invitees, will advance to the Society-wide finals, where the projects will be assigned allocations.

### 5.2 Grant Submission Persona

Teams will emulate a "local agency" (see Section 1), submitting on behalf of the relevant local agency.

### 5.3 Eligible Projects

Eligible projects must be an infrastructure construction project with a nexus primarily focused on improving surface mobility. Surface mobility pertains to roadway, rail, transit, bicycle, micromobility, and pedestrian infrastructure. Surface mobility does not include ferry, aviation, or other modes of air/water travel.

The project must be within a 50-mile radius of the geographic center of the team's primary school campus. For ASCE student chapters that may be located across several different campuses, draw the radius from the primary school campus.

The project must be one of the three following eligible project selection scenarios:

1. The project is original, and has not been developed by a local governmental agency or developer.
2. If a local agency has developed an initial concept for the project as part of capital improvement planning or other similar programming, the project should not be developed beyond a single scoping / planning sheet. *Many local agencies have "capital infrastructure plans" or similar compilation documents that outline their future infrastructure plans, and may have some basic information (i.e. scoping / planning sheet) of individual projects to inform management and stakeholders of future plans.*
3. If the project is developed beyond a single scoping / planning sheet, or the project is currently in planning or final design stages, the team's proposed project should be unrecognizable from what is currently being planned or designed.

Teams may not use projects currently in construction or scheduled to be in construction during the competition year (September 2026 to June 2027), where conditions will be changing in real-time.



## 5.4 Grant Amounts

Projects will request grant amounts within the following minimum and maximum:

Grant minimum: \$800,000

Grant maximum: \$5,000,000

## 5.5 Grant Implementation Schedule

The period of grant fund availability spans between July 2027 and June 2031 and approximately 36 months for grant project activities after the grant agreement is executed and the Sustainable Urban Solutions Foundation issues a Notice to Proceed.

## 5.6 Grant Use

The grants may be used for the following project development activities:

- Preliminary Planning and Environmental Documentation
- Final Design
- Construction
- Community Outreach
- Project Management of the above phases

# Section 6. Application Overview

The competition has four application components:

- Grant Application Package – see Section 7
- Sustainability – see Section 8
- Sample Outreach– see Section 9
- Community Meeting – see Section 10

# Section 7. Grant Application Package

## 7.1 Grant Application Package Overview

Teams must submit a grant application package with the following elements in the listed order:

1. Application Cover Sheet– see Section 7.3
2. Application Narrative – see Section 7.4
3. References – see Section 7.5
4. Appendix A: Preliminary Schematics – see Section 7.6
5. Appendix B: Artificial Intelligence Use Log– see Section 7.7

No additional appendices are permitted.

The Grant Application Package will be scored on the inclusion of all items in this section, thoroughness of design considerations, formatting, and justification of design decisions. *Teams are expected to identify, reference, and apply industry resources to support their design decisions. Collaboration with industry professionals and subject matter experts is encouraged.* See Section 12.1 for the grant application package scoring breakdown.

## 7.2 Formatting Requirements

### Page formatting requirements

Page size must be 8.5 inches by 11 inches (unless otherwise noted). Page margins must be minimum 0.5-inch on all sides.

### Content formatting requirements

Body text and table entries must be written in English using regular-width legible font type at 11-point size, normal character spacing, and single line spacing. Headings and subheadings may use any legible font type or size. Body text, heading text, and table entries must be searchable within standard PDF reader programs. Headers and footers are permitted within the margins and may use any legible font type or size.

Do not include blank pages or separator pages.

Figures may be included, but it must fit within the page limits of the sections as described below. Figures should be legible.

Do not include a table of contents.

The SSC does not endorse any specific style guide; teams have the freedom to choose.

### **7.3 Application Cover Sheet**

Provide the following information on 1-page maximum in the following tabular format:

|    |                                      |                                                                                                                                                                    |
|----|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | School name                          |                                                                                                                                                                    |
| 2  | ASCE Student Symposium name          |                                                                                                                                                                    |
| 3  | Date of submission                   |                                                                                                                                                                    |
| 4  | Team member names                    | <i>Include credentials (e.g. EIT, ENV SP).<br/>Society-wide finals only: additional points will be awarded for ENV SP-certified team members (see Section 13).</i> |
| 5  | Local agency name                    | <i>(for whom you are writing the application) - see Section 5.2</i>                                                                                                |
| 6  | Eligible project selection scenario  | <i>Label as 1, 2, or 3 per Section 5.3<br/>For Types 2 or 3: provide a link to the relevant planning/project document webpage</i>                                  |
| 7  | Project name                         |                                                                                                                                                                    |
| 8  | Project location link                | <i>Link to open the project location(s) within an online mapping environment (e.g. Google Maps, Bing Maps, OpenStreetMap, etc.)</i>                                |
| 9  | Infrastructure scope of work summary | <i>400 characters maximum</i>                                                                                                                                      |
| 10 | Grant request amount                 | <i>See Section 5.4</i>                                                                                                                                             |
| 11 | Total estimated project cost         |                                                                                                                                                                    |
| 12 | Grant request ratio                  | <i>[Grant request amount] divided by [total estimated project cost]<br/>(percentage rounded to the nearest 0.1)</i>                                                |
| 13 | Life cycle benefit-cost ratio        | <i>Rounded to the nearest 0.1</i>                                                                                                                                  |

*Note: the first and second columns are standard text that must be included in the table. Your project-specific information will be inputted into the third column. The italicized information in the third column is provided for guidance only; it should not be included in the table verbatim.*

Include the following statement. Modify as noted:

We certify that our team has reviewed the entirety of the ASCE Sustainable Solutions Competition 2027 rules and application question-and-answers 1 through <insert final RFI number>.

The team captain and faculty advisor must each include their name, email address, and signature.

### **7.4 Application Narrative**

The application narrative (5-pages maximum) will provide narrative for each of the following specified sections:

1. Project Need  
*Teams should discuss the drivers of the project (e.g. social, economic, political, environmental, safety, resiliency, etc.).*
2. Project Features and Impacts  
*Teams should discuss the features and the impacts (benefits and disbenefits) of the project.*
3. Sustainability Metrics  
*Teams must report their possible award level for Envision based on their Envision (v3) Checklist and justify why the local agency should pursue that possible award level.*
4. Project Challenges  
*Teams should analyze potential risks and constraints to the project implementation, focusing on areas such as technical constraints, constructability, schedule, etc.*
5. Project Selection Alternatives Analysis  
*What other projects did your team consider?*  
*Why did the team choose the chosen project over others?*  
*Note 1: This is not a project-specific alternatives analysis. Consider utilizing a decision matrix/table to supplement your analysis.*  
*Note 2: These “other projects” may be from local agencies other than that of the chosen project, but must still be within your school’s project eligibility radius (see Section 5.3).*  
*Note 3: One big emphasis in Envision is choosing the right project. This item is where you can show that you chose the right project!*
6. Public Participation and Planning  
*How would grant funding be used to ensure sufficient outreach?*
7. Implementation Schedule  
*Provide a schedule presenting planning, final design, construction, and closeout activities, assuming a grant agreement execution date of September 1, 2027. Consider utilizing a tabular format or a Gantt chart.*

Formatting requirement: Each section must have a heading that includes the number and section name, and be in numerical order.

## **7.5 References**

Teams must include a references section to cite sources.

There is no page limit to this section.

## **7.6 Appendix A: Preliminary Schematics**

Include 1 to 3 sheets of preliminary schematics. Include maps, plans, and other drawings to exhibit the proposed project. These sheets may be 8.5 inches by 11 inches or 11 inches by 17 inches in dimension. Content formatting requirements do not apply to the preliminary schematics. Label each sheet as Appendix A, and include the team’s school name, local agency name, and project name on each sheet.

### Project Location Map and Vicinity Map

On the first page of the preliminary schematics, provide a project location map and a project vicinity map. The project location map must show the project limits and the overall local agency boundary. The vicinity map must show the project location(s) and the team’s school location. Teams may provide a combined location and vicinity map. Provide a scale and a north arrow for maps. Also include a link to view the project location(s) within an online mapping environment (e.g. Google Maps, Bing Maps, OpenStreetMap, etc.).

## **7.7 Appendix B: Artificial Intelligence Use Log**

Teams must document all uses of generative artificial intelligence (AI) and nature language processing (NLP) model use throughout their grant application development. Label as Appendix B. Typical computer or web uses that integrate AI/NLP as an auxiliary function (e.g., query on search engine) should not be

included. Teams must document their uses in a tabular format with columns for date of use, name of AI program or NLP model, brief description of use, and estimated quantitative environmental impact.

Teams should quantitatively estimate an environmental impact for each AI/NLP use; cite a source and list within this appendix. The metric (e.g., energy, water, social impact, etc.) is at the team's own choosing but should be consistent.

If AI/NLP is not used in the development of the grant application, the team should provide a statement stating such in lieu of a log.

There is no page limit to this section.

## Section 8. Sustainability

### 8.1 Sustainability Overview

The Sustainable Urban Solutions Foundation has adopted the Institute for Sustainable Infrastructure's Envision framework to serve as the basis to assess sustainability. Teams will submit an Envision checklist, an Envision Criteria Sample Justification Document, and Envision documentation.

### 8.2 Envision Checklist

Download the Envision (v3) Guidance Manual and Envision Checklist (v3); see Appendix A for download instructions.

*Teams are highly encouraged to use these resources to guide the development of their grant application.*

Each team must complete the Envision Checklist (v3) to reflect their proposed site design or proposed actions to be taken during planning and construction. For each credit, teams will determine applicability to the project and then answer yes or no questions about their proposal to determine the point value awarded.

*The Envision Guidance Manual provides extensive information on sustainable design categories and approaches and identifies the actions that must be taken to achieve sustainable design criteria for the corresponding levels of achievement.*

*Teams must maintain the integrity of the Envision Checklist (v3) spreadsheet; do not modify cell positions of the spreadsheet data or formulas.*

### 8.3 Envision Criteria Sample Justifications

Teams must provide samples to preliminarily demonstrate justification for the Envision credits submitted in the Envision Checklist (v3) as a "Envision Criteria Sample Justification Document". *These sample justifications will simulate the third-party verification process that is done for all Envision projects.*

#### Envision Criteria Sample Justification Document

Provide a cover page that includes the team's school name, team member names, and be labeled as Envision Criteria Sample Justification Document. Content formatting requirements and page margin requirements do not apply to the cover page.

Provide a tabular summary of the total of Envision credits for each achievement category based on the Envision Checklist (v3), followed by reporting the possible award level.

Select 2 to 3 credits from each Envision achievement category (Quality of Life, Leadership, Resource Allocation, Natural World, Climate and Resilience) and provide sample justifications for the selected credits. These justifications, as selected by the team, should describe the proposed project features or actions taken that justify the criteria for the level of achievement points claimed for the credit. Teams will be scored on the merits of their justifications. Each justification must include the following required elements:



- Credit identification number
- Credit title
- Points representing Level of Achievement and total points possible
- Sufficient support of how the identified credit values meet the criteria for the credit. Justifications should demonstrate how the project achieves various Levels of Achievement across criteria as outlined by the Envision Guidance Manual.

*A sample justification for Resource Allocation 2.2, Reduce Construction Energy Consumption, is provided:*

*RA2.2 Reduce Construction Energy Consumption | 8 Achieved/12 Points Possible: The Project Team conducted two separate planning and economic assessments to reduce energy consumption during construction. The four energy reduction strategies that will be implemented are: (1) use local sand provider to reduce trucking distance for concrete reducing diesel consumption, (2) use ash from a nearby local industry in concrete manufacture to reduce diesel consumption, (3) solar photovoltaics and batteries will be placed on the two construction trailers to reduce onsite energy consumption, and (4) LED lighting will be used in all light applications during construction to reduce onsite energy consumption.*

*Please note that the format of above sample justification is written to the specific criterion. Other criteria may require different formats.*

#### Envision Criteria Sample Justification Document Formatting Requirements

Formatting requirements of the Envision Criteria Sample Justification Document will follow Section 7.2, except as follows:

- The Envision Criteria Sample Justification Document must not exceed 5 pages. These 5 pages include the cover page and any reference sections.
- Do not include the tabular summary or justifications on the cover page.
- No appendices are permitted.

*Teams in the past have included references in the text, typically in parentheticals. Teams should not assume that judges will reference a list of references provided in the Grant Application Package.*

### **8.4 Envision Documentation**

*Envision typically requires extensive appendices, calculations, and studies (documentation) as part of the certification process. This part of the competition will simulate some of the required documentation.*

Provide a cover page that includes the team's school name, team member names, and be labeled as "Envision Documentation". Content formatting requirements and page margin requirements do not apply to the cover page. Do not include documentation content on the cover page.

#### Documentation 1: Life Cycle Benefit-Cost Analysis

Provide a life cycle benefit-cost analysis for the project. The analysis should quantify costs and benefits on an annual basis for the project's life cycle, encompassing categories such as: capital costs (including construction), operations and maintenance, safety, time travel, vehicle operations, emissions, amenity benefits, health benefits, etc. The life cycle benefit-cost analysis must be in a tabular format with columns for:

- Item description,
- Category,
- One column for each year of the life cycle with costs/benefit values as entries, and
- A reference, citing where the benefit/cost came from. Descriptively title each reference and link where appropriate. "Link" is not an appropriate descriptor.

Provide a summarized total for each category.

For capital cost line items, provide quantity, unit of measurement, and cost per unit. Teams may either include this information via additional columns in the life cycle benefit-cost analysis, or via a separate capital cost estimate whose total is reported in the life cycle benefit-cost analysis.

Costs and benefits should be presented in 2027 present value US dollars.

The life cycle benefit-cost analysis will be scored on completeness and quality of references. *Teams are encouraged to seek out guidance from local practitioners and advisors to determine the appropriate sources of cost information.*

#### Documentation 2: Preliminary Embodied Carbon Analysis

Provide a preliminary embodied carbon analysis of the project elements in accordance with Envision (v3) Guidance Manual CR1.1.

Provides references for embodied carbon data, including “estimates of the embodied carbon of materials”, and “carbon emissions”. Descriptively title each reference and link where appropriate. “Link” is not an appropriate descriptor.

#### Documentation 3: Miscellaneous Sustainability Calculation

Teams must choose one additional sustainability calculation, such as:

- Stormwater volume and flow analysis for pre- and post- conditions
- Water demand and supply requirement calculations
- Earthwork balance
- Traffic analysis
- Other

#### Envision Documentation Formatting Requirements

Formatting requirements of the Envision Documentation will follow Section 7.2, except as follows:

- The Envision Documentation must not exceed 7 pages. These 7 pages include the cover page and any references provided.
- The life cycle benefit-cost analysis table entries may use 8-size font text.
  - Separate capital cost estimates must still use 11-size font text.
- No appendices are permitted.

## Section 9. Sample Outreach

### **9.1 Sample Outreach Overview**

Teams will showcase their ability to develop and deliver effective outreach by submitting the following sample outreach materials:

1. Poster – see Section 9.2
2. Social Media Post – see Section 9.3

### **9.2 Poster**

Create an accessible and informative poster to inform the citizens and stakeholders of the proposed project.

The poster must include:

- School name
- Project name
- Local agency name
- Site plan (plan view) with annotations

Posters are suggested to include information such as:

- Key design features and sustainability features
- Benefits of the chosen design to the local agency, its constituents, and other interested stakeholders

Teams will be scored on informativity, clarity, and aesthetics.

#### Formatting

The poster must not exceed 48 inches in width nor 36 inches in height.

#### Poster Display Session

Teams must print their posters and display them at the competition at the designated time and location.

*Teams must supply their own mounting materials, unless specified otherwise. The host school will specify the format of the poster display session and suggested mounting materials.*

*The host school will determine the time and location for a publicly accessible poster display session at the competition (i.e., student symposium).*

### **9.3 Social Media Post**

Create a single static image that will digitally broadcast your project and the upcoming community meeting (i.e., student symposium, Civil Engineering Student Championships; also, see Section 10). The image is meant to be viewed as if scrolling through a social media feed on a mobile device and without a caption.

#### Formatting

The social media post must be a 1080 by 1350 pixels (horizontal by vertical) image.

## **Section 10. Community Meeting**

Each team will present their project to a target audience consisting of the general public. For the competition, this will include the judging panel and fellow SSC competitors. Each team will have approximately 12 minutes to host their community presentation, consisting of a presentation and a question-and-answer session.

*Community meetings will be publicly accessible.*

Teams will be judged on their presentation content, presentation effectiveness, answer effectiveness, and quality of questions submitted in watching other team presentations.

### **10.1 Presentation Team**

Each team must have 2 to 5 members present their project. Each presentation team member must:

1. meet the requirements of Section 2.1; and
2. be registered participants of the student symposium / Society-wide finals.

Only presentation team members shall present the presentation and answer questions during the question-and-answer session.

### **10.2 Presentation**

Teams must present in English. Teams should present in a professional manner (*as would be given to a local community*). Teams should plan their presentations to be 3.5 to 4 minutes long.

*Teams are encouraged to create a slide deck or other visual aids to enhance their presentation.*

### 3-D Site Walkthrough

Include a 3-D site walkthrough of the proposed site. The 3-D site walkthrough should include a bird's eye view of the entire site and at least 3 first-person views from key locations of interest on or near the site.

Teams must create their 3-D site walkthrough using Trimble SketchUp: 3D Modeling Software. The SSC has SketchUp licenses available for teams; see Appendix C for more information. Teams must only enhance SketchUp models using authorized add-ons as listed on the Authorized SketchUp Add-on List, published on the ASCE SSC Collaborate site. Teams may submit requests for SketchUp add-on authorization via the [SSC 2027 SketchUp Add-on Authorization Form](#) until April 20, 2027. SketchUp add-ons must be free and publicly available.

During the 3-D site walkthrough, clearly overlay the name of the add-ons used.

*Using other modeling software programs and then exporting software output as SketchUp model files would be considered an “add-on”.*

### 10.3 Question-and-Answer Session

Following the presentation, judges will ask a mix of their own questions with team-submitted “community questions” during the remaining community meeting time. Only judges will ask questions.

Teams will watch presentations of other teams and submit questions for the question-and-answer session following each presentation via a QR code linked to an online form. At competitions for 6 or less teams, teams (at least one member) must watch presentations and submit questions for all other teams. At competitions with 7 or more teams, teams (at least one member) must watch presentations and submit questions for at least 6 other teams.

### 10.4 Community Favorite

At each competition with 3 or more teams, after watching the other teams, audience members may vote to determine the “Community Favorite” in the categories of:

1. Best Multidisciplinary Project
2. Best Safety Enhancement Project
3. Best Community Impact

ASCE will provide QR codes for online voting ballots. Judges may not participate in the voting. Voters may not vote for their own student chapter's team.

Teams awarded as “community favorite” in the various categories may receive recognition at the awards ceremony. At competitions with 3 to 4 teams, teams may be recognized in multiple categories. At competitions with 5 or more teams, recognition shall be limited to one team per category. At the Society-wide finals, the top 3 placing teams will not be eligible for community favorite recognition.

## Section 11. Submissions

### 11.1 Intent and Eligibility Acknowledgement Form

Teams must submit online [Intent and Eligibility Acknowledgement Forms](#), no later than **5:00 p.m. Eastern Time (ET) on November 2, 2026**.

By completing this form, a student chapter states:

1. Their intent to have a team participate in the competition at their assigned student symposium; and
2. Their acknowledgement of the eligibility requirements for student symposium competition participation and advancement to Society-wide finals competition (Appendix E).

The form must be completed and separately submitted by the:

1. Team Captain;
2. ASCE Student Chapter Faculty Advisor; and
3. Competition Faculty Advisor.

All parties will use the same form link to submit. If the ASCE Student Chapter Faculty Advisor and the Competition Team Faculty Advisor are the same person, the form has a field to indicate as such. Teams can verify completion by checking the [Intent Form Status Report](#).

## 11.2 Competition Submissions

### Deadlines

Student symposium competition submission deadlines will be at least 3 weeks prior to the competition; the student symposium host may determine an earlier date. *Check your [student symposium's website](#) ([link to the list of all student symposia](#)) to find the exact date; this information should be available by the date of publication for Mailer 2, typically mid-January.*

Society-wide finals competition submission deadlines will be determined and distributed to invitees by ASCE staff, typically 4 to 5 weeks prior.

The deadline time, regardless of date, is 11:59pm Eastern Standard Time (EST). *Your student chapter may not be in Eastern Standard Time. The times shown in Cerberus are Eastern Standard Time.*

*Teams may submit revised submission materials past the deadline but will accept the corresponding late penalty. The judging team will judge whatever is uploaded upon their time of download, per the specified file name. If judges encounter multiple versions with similar names in the folder, judges will evaluate the most recent one. Judges are not obligated to re-review submission materials that have already been judged.*

Judges may refuse to review deliverables that are more than 10 days late.

### Deliverables

Prior to the competition, teams must submit the following deliverables as part of their proposal:

1. Grant Application Package (PDF; as outlined in Section 7)
2. Envision Checklist (v3) (XLSX; as outlined in Section 8.2)
3. Envision Criteria Sample Justification Document (PDF; as outlined in Section 8.3)
4. Envision Documentation (PDF; as outlined in Section 8.4)
5. Poster (PDF; as outlined in Section 9.2)
6. Social Media Post (JPG or PNG; as outlined in 9.3)
7. Sketchup File (SKP; outlined in Section 10.2)

Submit each deliverable as one combined file with all required elements. All files (except for the SketchUp file) must be under 10 MB in size. Do not upload folders, compressed (e.g., zip files) or uncompressed.

*Teams that are invited to the Society-wide finals competition are encouraged to make updates to all grant application components; however, the Envision Checklist (v3) and the body content\* of the Grant Application Package, Envision Criteria Sample Justification Document, and Envision Documentation must match the student symposium submission.*

*\*The following is not considered body content: formatting, the cover page, references to other parts of the document, references to other submission deliverables.*

The files submitted on Cerberus are considered the team's official submissions. Judges will score these files for the Grant Application Package, Sustainability, and Sample Outreach, except where noted otherwise.



### Submission Instructions

Teams must submit all competition deliverables via upload to ASCE's Cerberus ftp server. Submissions outside of this platform will not be reviewed. See Appendix F for Cerberus Upload Guidance.

ASCE will provide each team with a unique, secure submission link to the Cerberus ftp server in February 2027 to the team captain, faculty advisor, and other contacts provided by teams in the Intent and Eligibility Acknowledgement Form (Section 11.1).

Submit files using the following file name format, using an underscore character as a separator:

#### **School name or Abbreviation\_Deliverable name**

*As an example:*

University of ASCE\_Grant Application Package.pdf

University of ASCE\_Envision Checklist.xlsx

University of ASCE\_Envision Criteria Sample Justification.pdf

The school name or abbreviation must match across all submissions.

## Section 12. Scoring

### 12.1 Scoring Overview

The four application components are assigned the following maximum grant points:

|                           |                 |
|---------------------------|-----------------|
| Grant Application Package | 35 grant points |
| Sustainability            | 30 grant points |
| Sample Outreach           | 10 grant points |
| Community Meeting         | 25 grant points |

Judges will score each application component, and then assign grant points proportional to the highest achievement score for each application component, rounded to the nearest 0.5 grant points.

*An example of a single application component with 4 teams is provided:*

| Grant Application Package (35 grant points) |                             |            |                                   |                                                            |                                      |              |
|---------------------------------------------|-----------------------------|------------|-----------------------------------|------------------------------------------------------------|--------------------------------------|--------------|
| Team                                        | Raw Score before deductions | Deductions | Raw Score after deductions (RSAD) | Calculation: $(RSAD / max) * (category\ proposal\ points)$ | Calculation result (before rounding) | Grant Points |
| A                                           | 79                          | 5%         | 75.05                             | $=(75.05/91.65)*35$                                        | =28.66                               | <b>28.5</b>  |
| B                                           | 90                          | 0%         | 90.00                             | $=(90.00/91.65)*35$                                        | =34.26                               | <b>34.5</b>  |
| C                                           | 94                          | 2.5%       | 91.65                             | $=(91.65/91.65)*35$                                        | =35.00                               | <b>35.0</b>  |
| D                                           | 67.2                        | 0%         | 67.20                             | $=(67.20/91.65)*35$                                        | =25.66                               | <b>25.5</b>  |

The grant points for each application component will be summed together for the total grant points. The Sustainable Urban Solutions Foundation (i.e., judges) will rank teams based on total grant points. In the case of a tie in total grant points, the higher sustainability score (after deductions) prevails.

*At the Society-wide finals, the scoring results printout will show grant allocation amounts in addition to grant points and rankings. Grant allocation amounts are provided for reference only and are not used to rank teams.*

#### Grant application package breakdown

|                              |     |
|------------------------------|-----|
| Application Cover Sheet      | 5%  |
| Project Need                 | 20% |
| Project Features and Impacts | 35% |

|                                         |     |
|-----------------------------------------|-----|
| Sustainability Metrics                  | 5%  |
| Project Challenges and Hurdles          | 5%  |
| Project Selection Alternatives Analysis | 5%  |
| Public Participation and Planning       | 5%  |
| Implementation Schedule                 | 5%  |
| Preliminary Schematics                  | 15% |

## 12.2 Deductions

*Teams should read these rules thoroughly to understand “must” terminology and active voice instructions. These form the basis for assessing deductions.*

Judges will document, tally, and provide a deduction summary sheet to teams using a version of Appendix D. Appendix D outlines the values of the various deductions. Deductions will be applied as percentage reductions to the judges’ scores for the corresponding application component.

Judges will assess Grant Application Package, Sustainability, and Sample Outreach deductions for:

1. Does not including required information.\*
2. Does not follow formatting requirements.\*
  - a. Does not follow submission formatting requirements.
3. Competition submission materials received past deadline.\*\*

\*Assessed on a per-instance basis.

\*\*Deduction cannot be appealed.

Posters will be measured at the competition. This deduction cannot be appealed.

Judges will assess Community Meeting deductions for:

1. Presentation Team has less than 2 or more than 5 members.\*\*
2. Delay or overextension of community meeting.\*\*
3. 3-D site walkthrough utilizes non-compliant software.
4. Submission materials (SKP file) received past deadline.\*\*

\*\*Deduction cannot be appealed.

Missing deliverables will be considered as “received past deadline”.

### Captains’ Meeting

A mandatory captains’ meeting should be held at the beginning of the competition to ensure all teams and judges are aware of the competition schedule, presentation order, and timeline for appeals.

At this meeting, the Head Judge will privately hand each team their own deduction summary sheet; this sheet will outline the deductions for the Grant Application Package, Sustainability, and Sample Outreach.

## 12.3 Appeals

### Deduction Appeals

Teams may appeal their deductions by completing Appendix D: Request for Clarifications and Appeals and submitting to the Head Judge by the deadline announced at the Captains’ Meeting. Appeals must be limited in scope to matters regarding their own team. The Head Judge has final say over deductions and appeals. *The Head Judge may consult with the SSC Rules Committee regarding deductions and appeals, but the SSC Rules Committee will not overturn their decision.*

### Competition Eligibility Appeals

Any appeals related to eligibility for advancement to Society-wide finals competition must be initiated by a student chapter leader or team captain in disagreement with a ruling related to their own team within 7 days of notification of ineligibility and received through student@asce.org with subject line: ASCE 2027

Competition Eligibility Appeal. This email will initiate a request for an appeals form. The form will be used to explain the appeal.

## Section 13. Training and Resources for Teams

The SSC Rules Committee encourages teams to review training and resources on the [ASCE Sustainable Solutions Competition Collaborate site](#) throughout the year. *Any questions regarding training and resources should be posted via “Discussion” on the ASCE SSC Collaborate site; please do not submit an Application Question!* Below are some of the trainings and resources that will be available:

### Getting Started Guide

Past SSC competitors convened to put together a “Getting Started Guide” (Appendix G), aimed at helping new and developing SSC teams get started and then get themselves to the competition at their student symposium!

### SketchUp Download

See Appendix B for information.

### Envision Training Webinar

A webinar will be hosted in November to provide an overview of the Envision v3 Checklist and Envision Guidance Manual.

### ISI Envision Mentoring

The Institute for Sustainable Infrastructure (ISI) will pair interested teams with an Envision-certified professional for mentorship. Details will be released in November/December.

### Envision Sustainability Professional training

ISI will offer complimentary training to become Envision Sustainability Professionals (ENV SP) for up to five members of each team (\$4,250 value per team!). Details will be released in November/December.

### Past Submissions

Past posters from the Society-wide finals are available. Please be sure to use them for inspiration only, and not to copy or plagiarize.

The top-performing proposals from the 2024 Civil Engineering Student Championships are available at the ASCE SSC Collaborate site under ‘Library’, file name ‘Anonymized 2024 Proposals’. They have been anonymized by removing all formatting and naming references. Please be sure to use them to understand what a top-performing narrative submission looks like, but not to copy or plagiarize. Please also note that competition format changes occur year-over-year.

## Section 14. Judge and Competition Host Information

*The information in this section is intended for judges and competition hosts; teams do not need to review this information.*

### Host Information

Hosts of the SSC have the following responsibilities:

- Communications
  - Coordinate a submission deadline date with the Head Judge.
    - Inform attendees of submission deadlines in Mailers.
  - Mailer 3
    - Provide a schedule for captain’s meeting, and community meeting, (at the judges’ discretion: on-site debrief).
    - Provide specifications for poster display mounting.
- Judges

- Secure 3 to 5 judges, including a Head Judge for the competition.
  - *The judging panel may include professionals and educators. The panel should have at least one judge experienced in site design and at least one judge well-versed in sustainability. Local Envision Sustainability Professionals are highly encouraged.* Local support for the Sustainable Solutions Competition is essential for the competition's development and success.
- Provide judge contact information to ASCE to ensure invitation to the Judge Training Webinar, typically in February.
- Communicate pre-competition level-of-effort for deliverable review.
- Captains' Meeting
  - Secure a location for a pre-competition Captains' Meeting. For smaller quantities of teams, this may be just before the community meeting.
- Poster Display Session
  - Secure a publicly accessible location for the Poster Display Session.
    - Specify the preferred poster mounting method(s) (i.e., easels, thumbtacks, tape, etc.). Notify teams by Mailer 3. Teams should assume that they are responsible for supplying their own mounting hardware, but the host may elect to provide this for the teams.
    - Provide ample space between each poster to avoid overcrowding. 8 to 10 feet on-center is a suggested spacing.
    - Consider co-locating with other poster / tabling / display sessions of other ASCE student competitions.
- Community Meeting
  - Secure a publicly accessible location for the community meeting with ample seating (for all SSC teams/participants) and audio-visual projection capability.
  - Provide a community meeting order/schedule no later than Mailer 3. Presentation times are recommended to be in time slots of 15 to 20 minutes intervals; this interval includes setup, presentation, and evaluation time. Provide judges' breaks every 4 to 5 presentations.
  - Post the Q&A/Community Favorite QR codes. ASCE will provide the QR code. ASCE will provide the Head Judge a link to each of the results.
- Coordinate a time and location with the Head Judge if a "debrief session" is desired.
- If other outstanding questions or concerns arise, please contact ASCE and the SSC Rules Committee.
- Refer to the ASCE Student Symposium Host Planning Guide for additional information.

### Judge Responsibilities

SSC Judges will have the following responsibilities:

- Attend or review Judge Training Webinar content provided by the SSC Rules Committee, provided in February.
- Ask questions to the SSC Rules Committee before and during the competition. Contact information will be provided.
- Head Judge should coordinate with the competition host on setting a submission deadline. The submission deadline should be at least three weeks prior to the start of the competition (i.e., student symposium) but may be more if there are a large quantity of teams.
- Review and be well versed in the rules and RFIs (see Section 4) as posted on the [ASCE Sustainable Solutions Competition Collaborate site](#). The SSC Rules Committee will also provide summary resources.
- ASCE will provide judges access to the online submissions through ASCE's Cerberus ftp server at least three weeks prior to the competition. See Section 11.2: Competition Submissions. All judges are expected to conduct their review and scoring of the submitted content prior to the competition (i.e., student symposium) and be prepared to complete all remaining scoring within the time provided during the contest.
- Be on-site at the competition (i.e., student symposium).

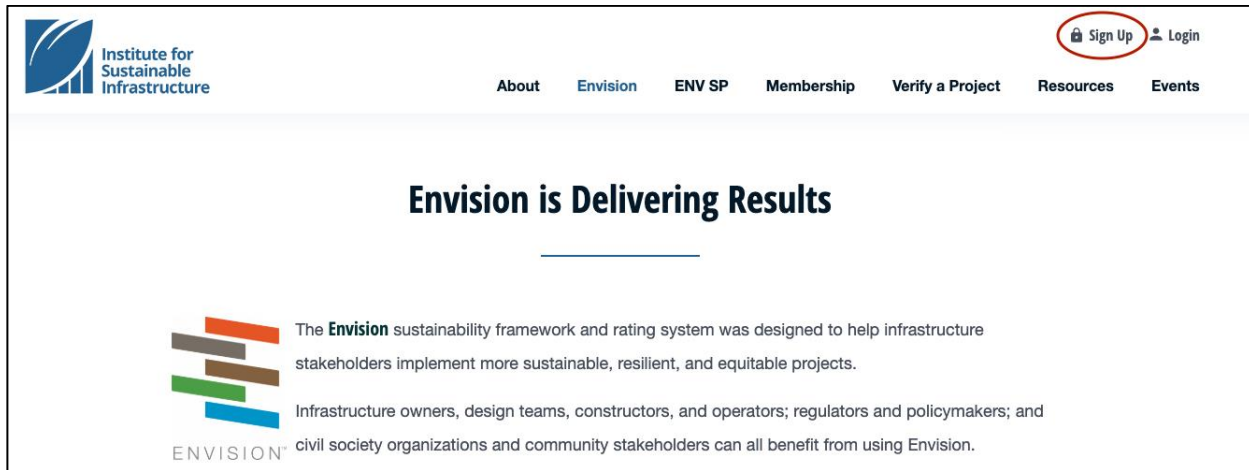
- The Head Judge should lead a Captains' Meeting. Bring printed copies of each team's deduction summary sheet.
- All judges should be present for Community Meetings.
- Verify that the host has posted the Community Meeting Q&A/Community Favorite QR codes prior to commencing the Community Meeting.
- *Optional, but highly recommended: host a "debrief" session on-site to provide constructive feedback to all teams as a way of enhancing the student educational experience and advancing the profession. This may be one-on-one, in a group setting, or both. Further information and guidance will be provided during judge training. This "debrief" may also occur after the competition in a virtual format.*
- The Head Judge must upload the completed scoresheet (see Section 2.4) to the provided Cerberus link (see Appendix F for Cerberus Upload Guidance).
- The Head Judge must email results to the host and associated results distribution list.



## Appendix A. Envision Download Guide

The first step to accessing ISI resources ( <https://sustainableinfrastructure.org/envision/use-envision/> ) is to create a free account. Click "Sign Up" in the top right corner or "Join" at the bottom of any page. [A detailed tutorial to sign-up is linked here.](#)

Students should check if their academic institutions are [member organizations of ISI](#). If so, they should affiliate themselves with the institution when creating their accounts. If an account is already created, log in to your dashboard, and under "Expand Your Account", select "Connect Organization".



Once logged in, the website will take you to your Dashboard. Scroll down to the "Resources" section where there are various Envision resources, including the Envision Guidance Manual and Envision Checklist (v3).



## Appendix B. SketchUp Download Guidance

The SSC would like to thank **Trimble** for providing these license authorizations!

**License authorization information will be posted to the ASCE SSC Collaborate site in mid-September.**

## Appendix C. Sample Deductions Form

**Head Judge Instructions:** Tally deductions per SSC scoresheet. Provide deductions for Grant Application Package, Sustainability, and Sample Outreach at the Captains' Meeting. Provide deductions for Community Meeting immediately following.

### School Name: \_\_\_\_\_

#### Grant Application Package

- \_\_\_\_\_ Does not include required information. (-2.5% per instance, up to -10%)
- \_\_\_\_\_ Submission does not follow formatting requirements. (-2% per instance, up to -10%)
- \_\_\_\_\_ Submission received past deadline.\* (-5% per day, up to -35%)

#### Sustainability

- \_\_\_\_\_ Does not follow formatting requirements. (-5% per instance, up to -10%)
- \_\_\_\_\_ Submissions received past deadline.\* (-5% per day, up to -35%)

#### Sample Outreach

- \_\_\_\_\_ Does not include required information. (-5% per instance, up to -10%)
- \_\_\_\_\_ Does not follow formatting requirements.\* (-2% per instance, up to -10%)
- \_\_\_\_\_ Submission received past deadline.\* (-5% per day, up to -35%)

#### Community Meeting

- \_\_\_\_\_ Community meeting team has fewer than 2 or more than 5 members.\* (-30%)
- \_\_\_\_\_ Delay or overextension of community meeting.\*/\*\* (-10% increments up to -30%)
- \_\_\_\_\_ Presentation 3-D site walkthrough uses non-compliant software. (-30%)
- \_\_\_\_\_ SKP file submission received past deadline.\* (-5% per day, up to -35%)

\*Deduction that cannot be appealed.

\*\*At the discretion of the Head Judge.

*Your team may submit an appeal (Appendix D) to the Head Judge prior to the appeals deadline.*

## Appendix D. Request for Clarifications and Appeals

**Instructions for Teams:** Please provide completed form to the Head Judge prior to the appeals deadline, as announced during the Captains' Meeting. Appeals must only involve your own team.

**School Name:**

**Team Captain(s):**

**Contact Information:**

**Briefly describe nature of clarification or appeal:**

---

**Head Judge Response:**

---

Head Judge Signature

*The Head Judge should update deduction scoring if any appeals are granted.*

## Appendix E. Competition Eligibility

*The purpose of student competitions is to provide student members career-enrichment opportunities to gain hands-on, practical experience and leadership skills. Society Competitions are an important and special opportunity to showcase the engineering and professional skills of student teams. As such, mutual respect is required for all stakeholders, including competitors, judges, hosts, and guests. Invitations to the Student Symposia and the Society-wide finals competitions/ ASCE Civil Engineering Student Championships are a privilege, not a right. Failure to act professionally can result in sanctions, disqualifications, and loss of invitations.*

*Please note that the requirements for eligibility for Society-wide finals competitions are more stringent than the requirements for participation at the student symposia competitions.*

### **Student Chapter Eligibility for Student Symposium Competitions**

**The following qualifications are required of all ASCE Student Chapters to compete at the Student Symposium Competitions:**

**An ASCE Student Chapter must:**

**1. Be in good standing with ASCE:**

- a. Have paid their annual dues, as received by ASCE, no later than the start of their Student Symposium.**
- b. Have submitted their student chapter's full Annual Report or EZ Annual Reporting Form no later than February 1, 11:59 p.m. EST.**

### **Student Chapter Eligibility for ASCE Society-wide Finals Competition**

**The following qualifications are required of all ASCE Student Chapters in order to advance to the ASCE Society-wide Finals Competition:**

**An ASCE Student Chapter must:**

**1. Be in good standing with ASCE:**

- a. Have paid their annual dues, as received by ASCE, no later than February 1, 11:59 p.m. EST.**
- b. Have submitted their student chapter's full Annual Report, no than February 1, 11:59 p.m. EST and have received a minimum score of 25 points out of a possible 100. Student Chapters that submit an EZ annual reporting form do not qualify to advance on to competition finals; and**

**2. Attend and participate in their assigned Student Symposium as shown through their school's:**

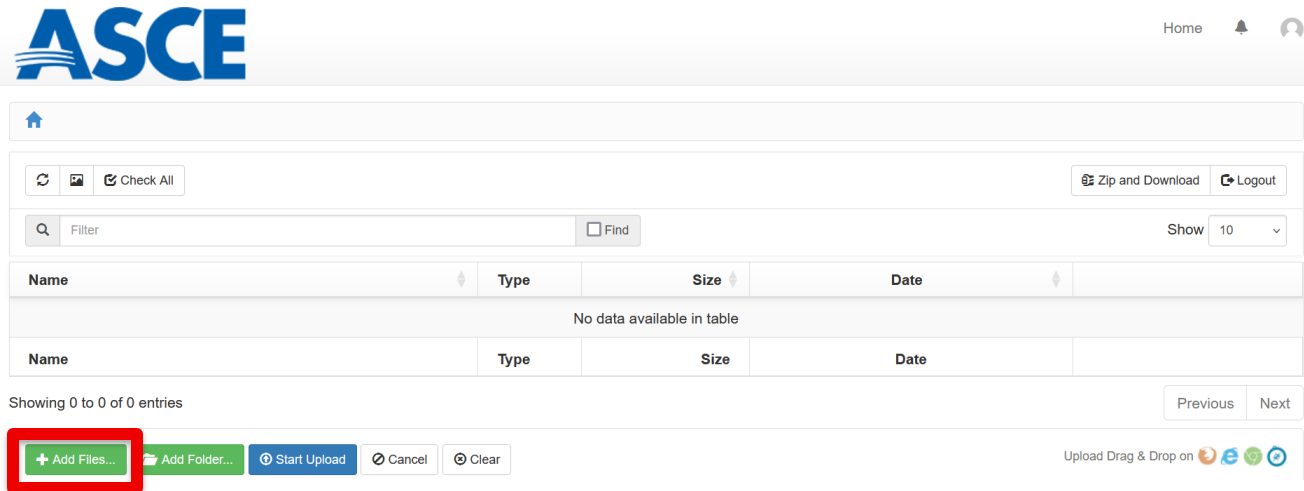
- a. On-time attendance and active participation by a student member of the ASCE Student Chapter at the Student Symposium Business Meeting.**
- b. Participation in the Student Symposium Paper Competition, including submission and presentation by a student member of the ASCE Student Chapter. Note that any papers/presentations created for any other competition do not count as an entry into the Student Symposium Paper Competition.**

**Questions regarding eligibility should be directed to [student@asce.org](mailto:student@asce.org).**



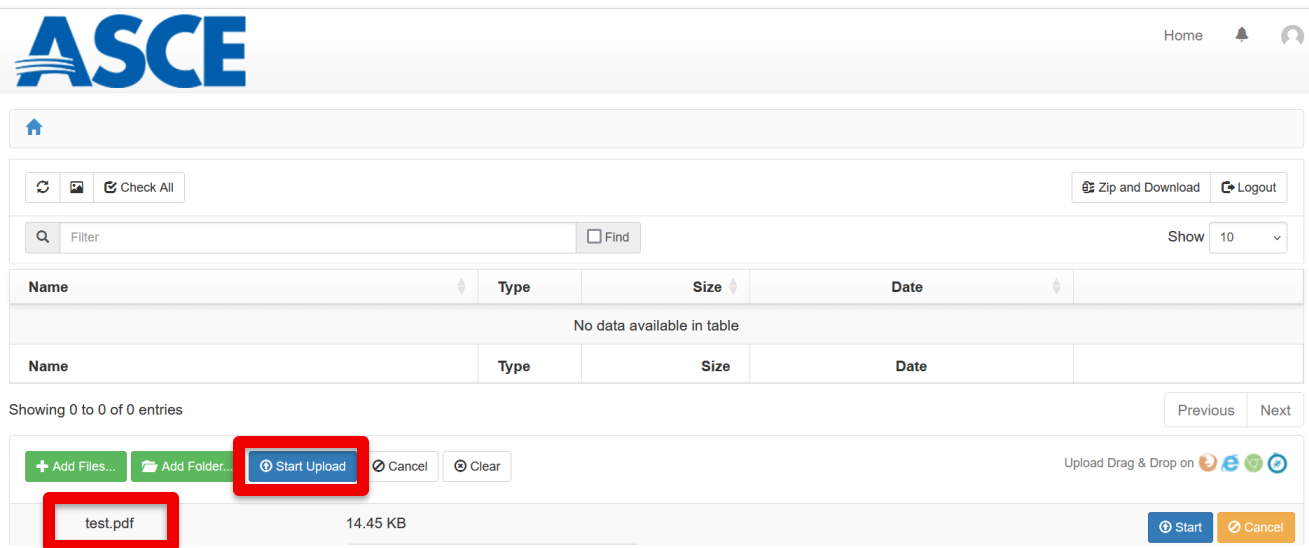
## Appendix F. Cerberus Upload Guidance

To add files to your Cerberus folder (secure link provided by ASCE), you can either click the **+Add Files** button and then browse to find the files to upload or drag and drop files to the area directly below the **+Add Files** button.



The screenshot shows the ASCE Cerberus interface. At the top is the ASCE logo and navigation links (Home, notifications, profile). Below is a toolbar with icons for refresh, folder, and 'Check All', along with 'Zip and Download' and 'Logout' buttons. A search bar with 'Filter' and a 'Find' button is present, along with a 'Show 10' dropdown. A table with columns 'Name', 'Type', 'Size', and 'Date' is shown, with the message 'No data available in table'. Below the table, it says 'Showing 0 to 0 of 0 entries' and has 'Previous' and 'Next' buttons. At the bottom, there is a row of buttons: '+ Add Files...' (highlighted with a red box), '+ Add Folder...', 'Start Upload', 'Cancel', and 'Clear'. To the right of these buttons is the text 'Upload Drag & Drop on' followed by social media icons.

The selected (or dragged and dropped) files will appear in the upload area. To upload the file into the folder, click **Start Upload**. (To delete the uploaded file from the upload area, click **Cancel**.)



This screenshot shows the same ASCE Cerberus interface, but now a file named 'test.pdf' (14.45 KB) is listed in the table. The 'test.pdf' text in the table is highlighted with a red box. The toolbar buttons remain the same, but the 'Start Upload' button is also highlighted with a red box. The 'Showing 0 to 0 of 0 entries' text has been updated to show the file. The 'Previous' and 'Next' buttons are still present. The 'Upload Drag & Drop on' text and social media icons are also visible.

When the file has been successfully uploaded, the name of the file will appear under “name”.

| Name     | Type | Size  | Date              |
|----------|------|-------|-------------------|
| test.pdf | file | 14 KB | 8/28/2024 4:05 PM |

Showing 1 to 1 of 1 entries

[+ Add Files...](#)
[+ Add Folder...](#)
[Start Upload](#)
[Cancel](#)
[Clear](#)

Upload Drag & Drop on

### Need help?

If your team needs modifications or deletions to Cerberus uploads, send an email to [student@asce.org](mailto:student@asce.org) with a request stating:

1. the location (your upload link),
2. the exact file name that you want deleted, and
3. a screenshot of Cerberus with annotations highlighting the file(s) you need deleted

*Note: ASCE staff will only delete files via this request. If modifications (i.e., name changes, file updates) are desired, you will have to request deletion and upload the updated version.*

## Appendix G. Getting Started Guide

This guide was created by past Sustainable Solutions Competition (SSC) competitors for future SSC competitors to help your SSC team navigate the difficulty of starting a team, perhaps for the first time, at your college or university.

### **Acknowledgement**

Thank you to the following for helping develop this guide (Summer 2026):

- Jacob Schlosser (Chair), Pennsylvania State University
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- Gabrielle Doherty, University of Central Florida
- Sarah Parks, University of North Dakota

### **About This Guide and Disclaimer**

This Appendix G is not a part of the rules; rather, it is a set of guidelines that any team could use, but was developed particularly for teams that may be new to the competition. This guide was developed based on past knowledge of the competition, without insight into the current iteration of the competition. While there may be elements of commonality year-to-year, it is up to each team to first read the current rules and then determine how this guide is best applicable. This guide should be taken as a way to help your SSC team deliver a project that you can feel proud of at your ASCE Student Symposium.

[The SSC Rules Committee has provided notes hereon in red to help guide your team for the context of this year's competition.]

### **Starting a Team**

Since the scope of the SSC is so broad, you will likely want a variety of skills for your team to be successful. 4 to 5 people are suggested, but more will be better. Select one member of this team as your team captain (project manager). The team captain should generally be responsible for making sure that the team is staying on track.

Getting that first set of members to start the team can be challenging. Look towards your school's ASCE student chapter as a way to recruit members and potentially to find some professors that are interested in serving as mentors or advisors.

Building a community around your team is an important part of keeping people engaged. When possible, organize events or activities for your team to improve communication and group synergy.

As you conduct meetings, integrate lessons learned into the project design and convey them to the different members of the team to ensure clarity and keep everyone on the same page. Do not shy away from mistakes as you make them; look at them as opportunities for growth to help your teammates avoid the same mistakes.

### **How the Competition Works**

Although the SSC prompts will vary from year to year, the competition centers around integrating sustainable practices into civil engineering design. Your goal will be to respond to the project prompt with a site design that demonstrates your understanding of the project, its given context, and sustainability principles in a reasonable and realistic manner.

### **Project Components**

Historically, required components/deliverables are as follows:

### Technical Design Proposal

[SSC Rules Committee note: “Technical Design Proposal” is inactive for this year. However, much of this information is likely applicable to the Grant Application Package]

Your technical design proposal will be where the majority of the content in your submission comes from. Generally, this is a 6-page summary that details everything that you designed throughout the project.

- Calculations: Included as an appendix with the Technical Design Proposal, the calculations serve as proof of your design’s efficacy. Calculation examples that you should research for use in your own project include, but are not limited to:
  - Stormwater Runoff
  - Garbage and Site Waste Generation
  - Cut and Fill Calculations
  - Building Energy Usage

[SSC Rules Committee note: calculations have generally been moved to Envision Documentation]

- Site Map: The Site Map is generally included in your Technical Design Proposal. You will get a site file (often a PDF) from ASCE to use for each year’s project. Once you determine your site design, developing the site map should be a priority. Later, you can import it into SketchUp to begin your 3D model of the project site. While rules may vary from year to year, it is strongly recommended that you include a legend and call out all important site features.

### Envision Spreadsheet and Justifications

Throughout this project, you will learn to use Envision, a percentage-based sustainability rating system for project sites. Envision criteria do not in any way replace, supersede, or create exceptions to existing local, state, provincial, or national health and safety regulations. Judges will review for quality and clarity, not the quantity, of your credits, so focus on making your justifications strong and specific. For a credit to be deemed “not applicable,” you must demonstrate that it cannot be feasibly achieved in any regard or that it does not pertain to site development (i.e., outdoor lighting credits when the project does not include exterior lighting). ASCE typically offers an Envision Webinar a few months after the prompt releases. The 2026 recording can be accessed at the following link: [2026 ASCE Sustainable Solutions Competition - Envision Overview Webinar for Competing Teams-20251211 120134-Meeting Recording.mp4](#).

### SketchUp Model

Teams are also tasked with rendering a 3D model of your project site using the SketchUp software. Each team is allotted a set number of licenses, and each license is device-bound, meaning only one person can use the specific SketchUp license at a given time. This is important to remember for your planning phase. Please ensure that your team’s designated device meets or exceeds the operating requirements, as SketchUp can be taxing on your device’s hardware. A list of resources and tips are included in Appendix G.2: SketchUp Resources.

### Poster

The Poster should be representative of the site, show its key features, and generally demonstrate what the community should know about your proposed project. Review the discussion thread history on the ASCE SSC Collaborate site for sample posters from previous ASCE Civil Engineering Student Championships competitions for inspiration, but be sure not to copy - make it your own!

### Interview and Presentation

The Interview is the greatest chance that you will have to demonstrate your knowledge of sustainability and how it relates to your project site. It is helpful in the interview if you are able to paint a project narrative along with the demonstration of your site’s sustainability.

[SSC Rules Committee note: “Interview and Presentation” is similar to Community Meeting]

## Generalized Workflow and Timeline

1. **Read the prompt:** Go through the prompt with your team and make sure you thoroughly understand what the rules are asking for. Discuss, as a team, your thoughts regarding site features, notable constraints, and opportunities to implement knowledge that your team already has.
2. **Establish Roles and Responsibilities:** Establish responsibilities and roles for the team. First, we suggest assigning a Team Captain who manages deadlines, stays organized, works well with a diverse set of team members, and can coordinate project elements from a high-level perspective. Depending on how many people you have on your team, you may want to have people focus on specific areas that your team deems critical to the project, such as water resources, Envision, construction safety and management, visualization (SketchUp), etc. Larger teams should consider a dedicated focus area subgroup, each with a lead. Each focus area subgroup should gather strategies AND report results back to the main group for a collaborative, cohesive final product. Be careful of siloing these efforts. Note: SketchUp requires patience and climbing of the learning curve!
3. **Project Development:** Please note that as your SSC team finds what works best for yourselves, some of the steps in this section may occur concurrently or in a varying order from what is listed here.
  - a. **Envision:** Familiarize yourself with how Envision works and start to determine what is feasible for your site in terms of achieving Envision credits. This involves starting to map out what credits you would like to pursue and identifying which ones may not apply to the year's project. Until your site design and calculations have been finalized, it is nearly impossible to fill out the Envision spreadsheet.
  - b. **Design Your Site:** Form a site layout that is cohesive and fits with your team's project narrative. The site layout will have significant impacts on the rest of your project, so take time on this step and think it through. Once the site layout is determined, someone should start developing the site map using a CAD program (e.g., AutoCAD, MicroStation). To begin this step, you will need to import the given site map from PDF into CAD – there are several instructional resources that are a web search away. After the 2D CAD work is done, start on the SketchUp model as soon as possible, as it takes a significant amount of time.
  - c. **Calculations:** Perform calculations to determine site performance. When performing calculations, do your best to make sure that both your assumptions and your results seem reasonable and relevant to the project. Ideally, you should have a practitioner or professor review your calculations to make sure that they check out.
  - d. **Prepare submission deliverables:** Compose your technical design proposal and give yourself ample time to review and edit. As you edit, also be developing your poster, as it will need to be submitted concurrently. Ensure that you are following all formatting requirements for the project that are listed in the rules. Please note that failure to follow the formatting guidelines will result in deductions.
  - e. **Submit your project:** ASCE will send you a submission link for your SSC project. This deadline varies by student symposium. You can check your student symposium's deadline by 1) finding which student symposium your school is in at <https://www.asce.org/communities/student-members/conferences#symposia>, and then 2) going to your student symposium's website and finding the deadline on the mailers. Please note that failure to submit project deliverables on time will result in deductions.
  - f. **Prepare for your student symposium.** Primarily, this means developing your presentation slides and talking points. The interview has historically been worth a significant number of points and is largely focused on demonstrating the thought process and project narrative behind your site design. Read the rules thoroughly for recommendations on team members, presentation length, and required content. It is essential to practice the presentation repeatedly with an audience, especially in answering questions. Consider using professors, your ASCE student chapter, and beyond as your practice audience. Find areas for improvement after each practice iteration.

## ***Frequently Asked Questions***

### *How successful are most teams in the first year?*

In the first year, teams may struggle to find their feet and become discouraged by their performance. While anything is possible, please keep in mind that this is a competition; you will be up against teams with much more experience than you. Your priority should be to develop the highest quality design that you can and learn through the process. Then, be sure to pass on the knowledge and lessons learned to the next year's team. Overall, focus on learning and having fun!

### *Where should we locate our project?*

Historically, the competition has assigned standard site information, leaving the specific geographical location to team preferences. With the previous assumption, it is recommended that you establish the geographic location based on prior knowledge, experience, or familiarity. For example, if your school is in Philadelphia, you would likely want to use design codes from the Philadelphia region, especially since many practitioners and professors you may work with will likely be there.

[SSC Rules Committee note: since you need to choose your project this year, many of these points may not be as important as in the past. However, this should be a first item of work for your team.]

### *What does “engineering judgement” mean?*

“Engineering judgement” is frequently referenced in RFI's from year to year and occasionally in the prompt as well. The idea is that as (presumably, but not necessarily) engineering students, you have a certain amount of knowledge that allows you to make certain judgments in your design. Essentially, when you see “engineering judgment” mentioned, the Rules Committee wants you to make a reasonable assumption. This is an area where having a team mentor or advisor can become very valuable.

[SSC Rules Committee note: instead of “RFI's”, we have “application questions” this year.]

### *How do I find practitioners and professors to review our work?*

Practitioners and professors are great resources for understanding topics that your SSC team may not have dealt with before. However, reaching out is not always the easiest thing to do, so we have created a template (Appendix G.1: Faculty/Practitioner Outreach Template) for reaching out to Professors and Practitioners if you prefer to send an email or letter. Adapt as you see fit.



### **Appendix G.1: Faculty/Practitioner Outreach Template**

Good afternoon [Faculty/Practitioner Name],

My name is [Student Name], and I am a [year] civil engineering student currently serving as the [Captain/Project Manager] for the Sustainable Solutions Competition through the [school name] student chapter of the American Society of Civil Engineers (ASCE).

Through this competition, our team is responsible for developing a comprehensive and sustainable land development plan based on a real-world project scenario. Our final design will be evaluated in areas such as stormwater management, transportation, construction, and sustainable design. We will be competing against the other ASCE student chapters in our region at the [student symposium name] Student Symposium this upcoming [March/April].

This year's project focuses on [1-2 sentence description of the project]. Because of your experience in [relevant subject or area of expertise], we would greatly appreciate the opportunity to learn more about [specific topic] and receive your input on our current site design.

If you are willing, our team would love to schedule a brief Microsoft Teams or Zoom meeting sometime next week to discuss the project and ask a few questions about [discussion topic]. Please let me know what your availability looks like, and I would be happy to coordinate a meeting time and send over any additional project information or current design materials to review in preparation thereof.

Outside of a meeting, our team would appreciate any resources, examples, technical information, or recommendations you may have, including other [faculty members/industry professionals] who may be willing to help us on our journey to success.

Thank you for your time and consideration. We truly appreciate any guidance you may be able to provide and look forward to hearing from you.

Thank you,

[Student Name]

ASCE Sustainable Solutions Competition [Captain/Project Manager]

### **Appendix G.2: SketchUp Resources**

- Sketchup Essentials Video - <https://youtu.be/hGOUc8i-TxA?si=XuaaN8UVKBei1Jpl>
- SketchUp Essential Shortcut List - <https://download.sketchup.com/QRC2026/HC-QRC2026-en-SU-windows.pdf>
- The [3D Warehouse](#) is a tool available for use within the SketchUp Program that allows seamless additions of pre-made 3D models from its extensive library.
- It can be beneficial for your dedicated SketchUp team member to create their own [Trimble ID](#) for more seamless access to SketchUp and all of its accompanying resources.
- You can also share your SketchUp model to allow for online access via [SketchUp for Web](#), a free way to view and make minor edits to the model with your Trimble ID.
- Additional SketchUp information can be readily accessed on their Help page: <https://help.sketchup.com/en/sketchup/sketchup>
- Only one license can be approved per team and is restricted to up to 2 devices under the same Trimble ID. As such, extreme care should be used to determine that the device registered for the license can properly support the SketchUp program (See [SketchUp Requirements](#)).