



ORANGE COUNTY

Sustainability Decathlon

Competition Rules

Version 1.0.0, February 17, 2022

Introduction

Orange County Sustainability Decathlon (OCSD23) will be held October 5 – 15, 2023 in Orange County, California. Participating Teams will compete side-by-side at a common location to attract thousands of visitors and consumer interest worldwide. The competition will showcase state-of-the-art designs and technology and create a new, innovative marketplace for sustainable housing.

Participation Stipend

All Teams selected to participate in OCSD23 will receive \$100,000 as “seed money” to get started. Up to 20 teams will be selected for the competition.

Awards

Competition Awards

Overall Winners

First, Second, and Third Place

Juried Contests

First, Second, and Third Place for each of the five juried contests

Performance Rating Contests

First, Second, and Third Place for each of two performance-based contests that are rated

Certifications

Official printed HERS certification for each Team

Signed Certificate of Occupancy for each Team

Benefits

Recognition

Broad media exposure for OCSD competition will showcase the skills and talents of every participating Team.

On-site Experience and Online Outreach

Teams selected for OCSD will compete side-by-side at a single site, attracting thousands of people to view, tour, and learn about these innovative houses.

The OCSD website will showcase participating Teams and highlight the unique features of their houses. Anyone unable to attend the on-site event can explore OCSD virtually to learn more.

Contents

- SECTION I DEFINITIONS.....1**

- SECTION II CONTESTS AND CRITERIA4**
 - Contest 1 Sustainability and Resilience.....7
 - Contest 2 Architecture and Interior Design.....8
 - Contest 3 Engineering and Construction9
 - Contest 4 Communications and Marketing9
 - Contest 5 Innovation.....10
 - Contest 6 Energy Efficiency11
 - Contest 7 Water Use and Conservation12
 - Contest 8 Health and Comfort.....12
 - 8.1 Whole House Systems.....13
 - 8.2 Bathroom Facilities and Plumbing.....13
 - Contest 9 Lighting and Appliances13
 - 9.1 Lighting.....13
 - 9.2 Kitchen and Laundry.....13
 - 9.3 Home Office, Security, and Electronics.....13
 - Contest 10 Shared Experiences14
 - 10.1 Dinner Gatherings14
 - 10.2 Shared Entertainment14

- SECTION III GENERAL RULES 16**
 - Rule 1 Authority.....16
 - 1.1 Director.....16
 - 1.2 Competition Manager16
 - 1.3 Rules Officials16
 - 1.4 Organizers16
 - 1.5 Staff and Volunteers16
 - Rule 2 Administration16
 - 2.1 Precedence.....16
 - 2.2 Violations of Intent.....16
 - 2.3 Effective Date16
 - 2.4 Official Communications17
 - 2.5 Decisions on Rules17
 - 2.6 Self-Reporting.....17
 - 2.7 Penalties.....18
 - 2.8 Protests.....18
 - Rule 3 Participation19
 - 3.1 Entry19
 - 3.2 Contact Information19
 - 3.3 Safety20
 - 3.4 Conduct21
 - 3.5 Use of Likeness, Content, and Images.....21

3.6	Withdrawals.....	21
Rule 4	Site Operations.....	21
4.1	Damage Liability.....	21
4.2	Construction Equipment.....	22
4.3	Ground Penetration.....	22
4.4	Impact on the Competition Site.....	22
4.5	Construction Power and Lighting.....	22
4.6	Spill Containment.....	22
4.7	Lot Conditions.....	23
Rule 5	Building Envelope.....	23
5.1	Lot Size.....	23
5.2	Height Limit.....	23
Rule 6	The House.....	23
6.1	Structural Design Approval.....	23
6.2	Finished Square Footage.....	23
6.3	Entrance and Exit Routes.....	24
6.4	Competition Prototype Alternates.....	24
Rule 7	Vegetation.....	24
7.1	Placement.....	25
7.2	Watering Restrictions.....	25
Rule 8	Energy.....	25
8.1	Competition Site Constraints.....	25
8.2	PV Technology Limitations.....	25
8.3	Energy Sources.....	25
8.4	Batteries.....	25
8.5	Desiccant Systems.....	26
Rule 9	Liquids.....	26
9.1	Competition Site Constraints.....	26
9.2	Container Locations.....	26
9.3	Team-Provided Liquids.....	26
9.4	Greywater Reuse.....	27
9.5	Rainwater Collection.....	27
9.6	Evaporation.....	27
9.7	Thermal Mass.....	27
9.8	Greywater Heat Recovery.....	27
9.9	Water Delivery.....	28
9.10	Water Removal.....	28
Rule 10	The Event.....	29
10.1	Registration.....	29
10.2	Event Sponsor Recognition.....	29
10.3	Team Sponsor Recognition.....	29
10.4	Logistics.....	30
10.5	Inspections.....	30
Rule 11	Contest Week.....	31
11.1	House Occupancy.....	31

11.2 House Operators 31
11.3 Late Design Changes 31
11.4 Public Exhibit 31
11.5 Team Uniforms 31
11.6 Impound 32

SECTION I DEFINITIONS

The Orange County Sustainability Decathlon will hereafter be referred to as OCSD.

Assembly

The period of time between the arrival of trucks and the beginning of the contests on the competition site

OCSD Building Code

A set of design and construction standards set forth and enforced by the OCSD Building Official for the protection of public health and safety during the event

OCSD Building Official

The rules official responsible for writing, interpreting, and enforcing the OCSD Building Code

Communications Manager

The Organizer responsible for public outreach and communications activities

Communications materials

All printed or electronic publications designed to convey information to the public

Competition

All aspects of OCSD related to the 10 contests and the scoring of those contests

Competition Manager

The Organizer responsible for enforcing the rules and conducting a fair competition

Competition site

Physical location of OCSD

Contest

OCSD competition consists of 10 distinct contests (separately scored), some of which contain one or more subcontests

Contest Official

Individual selected by the Competition Manager to officiate one or more of the contests; a contest official is authorized to interpret only the rules of the contest(s) to which he or she is assigned

Contest Week

Multi-day period on the competition site when some or all contests are in progress

Decathlete

Team member who meets the eligibility rules outlined in the Team Portal

Decision

The interpretation or clarification of a rule by the Rules Officials

Decisions on OCSD Rules

Compilation of all decisions made by Rules Officials during the competition

Director

The Organizer with final decision-making authority for all aspects of the competition

Disassembly

The period of time between the closing of the public exhibit and the completion of competition site cleanup; rule 8.3 does not apply during disassembly

Event

Activities that take place on the competition site including, but not limited to, registration, assembly, inspections, contests, special events, public exhibits, and disassembly

Event Sponsor

An entity that supports OCSD which has been selected or approved by the Organization

Faculty Advisor

Team member who serves as a faculty member and primary representative of a participating school in the competition; this Advisor also provides guidance to the team

House

For each participating Team, the completed assembly of physical components installed on the competition site

Juried Contest

Contest assessed by a professional jury

Juror

Individual selected by the Organization to participate in a jury that performs subjective evaluations

Jury

Group of jurors invited to evaluate OCSD entries based on specific criteria established for a particular contest

Observer

Individual assigned by the Competition Manager to observe team activities during contest week; an Observer reports any rules infractions to the Rules Officials and records the results of specific contest tasks; an Observer does not interpret OCSD Rules

Organization

Core group of individuals that represent and manage OCSD, including the Director, Competition Manager, Rules Officials, and Organizers

Organizer

Any individual assigned to work on OCSD with the authority described in rule 1.4

Performance Rating Contest

Contest assessed on model-predicted performance

Performance Verification Contest or Subcontest

Contest or subcontest assessed on completion of tasks designed to demonstrate functionality by observation, measurement, or both

Project

For any participating Team, the activities for OCSD, from issuance of the request for proposals through the conclusion of the competition

Protest Resolution Committee

Group of individuals selected by the Organization to resolve any Team protests during the competition

Public Exhibit

Areas of the competition site open to the public during designated hours

Rule

A principle or regulation governing the conduct, action, procedure, arrangement, etc., for the duration of the competition

Rules Official

An Organizer authorized to interpret the official rules; the Competition Manager is the lead Rules Official

Safety Officer

An Organizer whose primary responsibilities are to review Team construction documents and evaluate the competition site activities of every Team for compliance with rule 3.3

Staff

Individuals working for the Organization to plan and execute the competition

Subcontest

A subset of one of the 10 contests that is individually scored

Team Crew

Individuals who are integrally involved with Team activities but unaffiliated with a participating school, such as contractors, volunteers, and sponsors

Team Member

An enrolled student, recent graduate, faculty member, or other individual affiliated with one of the participating schools and integrally involved with Team activities, such as decathletes, faculty advisors, and staff from a participating school

Team Portal

Community website that includes official communications suitable for viewing by all Teams

SECTION II CONTESTS AND CRITERIA

As a “Decathlon,” OCSD is comprised of 10 contests that are scored independently of each other. Each contest is worth 100 points, with 1000 cumulative points available across the 10 contests. The Team with the highest cumulative score at the end of Contest Week wins the competition. Teams earn points through jury evaluations, performance-based ratings, and verification of whole-house performance.

Table 1: Ten Contests

Contest Type	Contest #	Contest Name
Juried	1	Sustainability and Resilience
	2	Architecture and Interior Design
	3	Engineering and Construction
	4	Communications and Marketing
	5	Innovation
Performance Rating	6	Energy Efficiency
	7	Water Use and Conservation
Performance Verification	8	Health and Comfort
	9	Lighting and Appliances
	10	Shared Experiences

Juried contest scores are determined by groups of subject-matter experts. Performance Rating and Performance Verification contest scores are determined by the Organization. Jury and Organizer evaluation activities begin off-site before Contest Week and continue on-site during Contest Week. Final Contest scores are announced during formal award ceremonies during Contest Week.

Table 2: Competition Structure

Each of the 10 Contests is worth a total of 100 points
Some Contests include Subcontests.

Contest #	Contest	Subcontest	Subcontest Points	Evaluation	Description
1	Sustainability and Resilience			Juried	Sustainability and Resilience Jury reviews and evaluates design deliverables and constructed house
2	Architecture and Interior Design				Architecture and Interior Design Jury reviews and evaluates design deliverables and constructed house
3	Engineering and Construction				Engineering and Construction Jury reviews and evaluates design deliverables and constructed house
4	Communications and Marketing				Communications and Marketing Jury reviews and evaluates communications and marketing collateral, online materials, and the on-site experience
5	Innovation				Each of the juries for Contests 1-4 will review and evaluate innovation incorporated into the plans and finished house related to their respective areas of expertise
6	Energy Efficiency			Performance Rating	Design and build a house with no greater than a 40 HERS Index (e.g., minimum 60% less net annual site electricity consumption than standard benchmark house)
7	Water Use and Conservation				Design and build a house with no greater than a 40 HERS _{H2O} Index (e.g., minimum 60% less annual water consumption than standard benchmark house)

Contest #	Contest	Subcontest	Subcontest Points	Evaluation	Description	
8	Health and Comfort	Whole House Systems	75	Performance Verification	Demonstrate that HVAC, PV/batteries, hot water, and other whole-house systems and their components are installed and configured per the construction documents and function as intended.	
		Bathroom Facilities and Plumbing	25		Demonstrate that all bathroom facilities (shower, water closet, lavatory, etc.) function as intended and are installed and configured per the construction documents.	
9	Lighting and Appliances	Lighting	30		Demonstrate that all lighting and daylighting components, including controls, are installed and configured per the construction documents and function as intended.	
		Kitchen and Laundry	50		Demonstrate that appliances such as the refrigerator, freezer, dishwasher, cooktop, clothes washer, and clothes dryer are installed and configured per the construction documents and function as intended.	
		Home Office, Security, and Electronics	20		Demonstrate that all home office, security, and electronic entertainment systems and components are installed and configured per the construction documents and function as intended.	
10	Shared Experiences	Dinner Gatherings	50		Plan and host a dinner gathering with neighbors in a fully functional house	
		Shared Entertainment	50		Plan and host an evening of entertainment with neighbors in a fully functional house	
TOTALS		1,000 points possible			500 juried points, 200 performance rating points, 300 performance verification points	

Contest 1 Sustainability and Resilience

Sustainability science is a relatively new discipline that focuses on interactions between humans, the environment, and engineered systems. The three main pillars of sustainability are environmental (the planet), social (people), and economic (prosperity). For this competition, sustainability emphasizes the design and construction of homes that meet today's needs while recognizing the limitations of the physical, social, and natural resources currently available; in other words, without compromising the needs of future generations. Meeting today's needs, as referenced here, includes the use of renewable energy, natural resources, and resiliency.

This Contest evaluates how well the house design, techniques, systems, and components attain maximum reduction of negative environmental impact in all phases, including manufacturing, construction, use, and eventual decommissioning.

A jury of professionals will assign an overall score for sustainability, long-term durability, and resilience. The jury will consider deliverables submitted and perform an onsite evaluation of the completed house. The jury will consider the following criteria:

Sustainable Energy and Resources

1. To what extent does the building integrate sustainable strategies, reduce lifecycle impacts, and enable the reclamation and reuse of water?
2. To what extent does the team consider the building's lifecycle, such as the impact of materials extraction, manufacturing, transportation, construction, use, and end-of-life decommissioning of the building?
3. How effective is the team's capacity to influence consumer behavior in its delivery of key concepts related to sustainable design and construction?

Resilience

Resilience, an important aspect of sustainability, is the ability of a building to be prepared for, absorb, recover from, and successfully adapt to adverse events it may encounter. Faced with unpredictable challenges such as climate change, forest fires, drought, earthquakes, environmental degradation, and health pandemics, teams must demonstrate how their homes address these challenges as resilient buildings.

The jury will evaluate the home's ability to provide indoor and outdoor fire warnings and protection, and to safely withstand and recover from natural disasters by maintaining critical operations during power disruptions that commonly occur and immediately after those events.

1. Do fire protection alarms work effectively? Do surveillance monitoring sensors and equipment work as designed?
2. To what level do design details, materials selection, and construction practices ensure durability?

3. How effective is the house at providing occupants with critical survival capabilities during periods of extended power outages and water shortages?

Sustainability and Resilience Innovation

In addition to and separate from the score assigned to each team for the Sustainability and Resilience Contest, the jury will assign a score for innovation. This score will become one-fourth of the total score for the Innovation Contest. The jury will consider the following questions:

1. What unique elements or aspects of sustainability and resilience reflect noteworthy innovation?
2. To what extent does the team apply innovative strategies to reduce negative environmental impacts during the acquisition, assembly, and decommissioning of basic house components?

Contest 2 Architecture and Interior Design

This Contest evaluates the architecture and interior design of the house and its ability to deliver both outstanding aesthetics and functionality. A jury of professional architects and interior designers will assign an overall score for conceptual coherence, merit, integration, and implementation of the design. The jury will consider the deliverables submitted and perform an on-site evaluation of the competition house. The jury will consider the following criteria:

1. Overall coherence among architectural, structural, mechanical, electrical, lighting, landscaping, and other related disciplines and systems of the house.
2. Effectiveness of interior design to provide comfort, functionality, and adaptability.
3. Effectiveness in the use of architectural elements such as indoor/outdoor connections, composition, and transformable or multi-use spaces.
4. Integration of both natural and electrical lighting in the house, and overall effectiveness of the lighting system design.

Architectural Innovation

In addition to and separate from the score assigned to each team for the Architecture and Interior Design Contest, the jury will assign each team a score for innovation. This score will become one-fourth of the total score for the Innovation Contest. The jury will consider the following questions:

1. What unique elements or aspects of architecture and interior design reflect noteworthy innovation?
2. How innovative is the team's approach to architectural elements, holistic and integrated design, inclusive of space, structure, and building envelope?

Contest 3 Engineering and Construction

This Contest evaluates the engineering and construction workmanship of the team. A jury of professional engineers will assign an overall score for the merit and implementation of the structure and engineering design. The jury will consider the deliverables submitted and perform an on-site evaluation of the competition prototype house. The jury will consider the following criteria:

1. Demonstration of high levels of functionality, viability, reliability, and efficiency of the building, including electricity, plumbing, lighting, HVAC, and solar systems, and their adequate integration into the overall project.
2. Efficiency and effectiveness of the house envelope and its effectiveness in reducing the thermal needs of the building.
3. Professionalism of the team's documentation: Construction and system specifications, energy analysis results and discussion, and audio-visuals should accurately reflect the constructed project as assembled on the competition site.

Engineering Innovation

In addition to and separate from the score assigned to each team for the Engineering and Construction Contest, the jury will assign each team a score for innovation. This score will become one-fourth of the total score for the Innovation Contest. The jury will consider the following questions:

1. What unique elements or aspects of building and construction represent noteworthy innovation?
2. To what extent does the design solution utilize new, unique, or atypical processes, technologies or engineering solutions for improved performance?

Contest 4 Communications and Marketing

This Contest evaluates each team's demonstrated capacity to promote their skills, ideas, and sustainable designs through compelling communications and marketing strategies. The goal is to boost successful efforts that lead to near-term public acceptance, adoption, and replication of these prototype houses. Communications and marketing materials and methods should strongly reflect how well the design of the house responds to consumer demands in this post-pandemic period, as well as current requirements of the California housing industry. Each team must define in advance the intended California market segment for their completed house, including household composition, income level, and geographic location.

Each team will devise a background "story" about their competition house. This story should be a coherent narrative that explains why the team developed a particular style and design. The story should connect to the target audience, telling how and why this home is well-suited to their needs. The story should also help visitors better understand the design of the house and provide a set of well-connected talking points to inform their experiences when touring the house. The story can highlight elements from the ten contests to illustrate why this home

is a suitable match for the target audience and how it will enhance their daily life, while honoring the overarching concept of sustainability. Each team will present their story to the Communications and Marketing Jury. The presentation will be recorded and used to post highlights on the competition website.

A jury of professionals will assign an overall score for each team's communications and marketing strategies, materials, and efforts to educate, inform, and persuade homebuyers and the general public of the value of their sustainable house. The jury will consider deliverables submitted and the effectiveness and delivery of communications and marketing activities at the competition site. The jury will consider the following criteria:

1. Quality and delivery of communications materials, including a website, social media, resources in print, audio-visual media, public exhibits on display at the event, house tours, and on-site presentation for the jury.
2. How appropriate is the targeted message for consumers and the California housing market?
3. How effective is the market analysis for the intended audience? How well does the design integrate key findings from that market analysis?
4. How well does the team highlight the sustainability and livability features of the house to improve consumer education and marketability?
5. To what extent are these marketing strategies likely to have immediate and long-term impact on the marketplace?

Communications and Marketing Innovation

In addition to and separate from the score assigned to each team for the Communications and Marketing Contest, the jury will assign each team a score for innovation. This score will become one-fourth of the total score for the Innovation Contest. The jury will consider the following questions:

1. How innovative is the team's approach to market potential, increasing the likelihood that their design would be accepted in the California residential market, and how likely is it that their innovative marketing efforts will impact the homebuilding industry statewide?
2. How innovative are the team's strategies to inspire and motivate consumers to take action steps toward opportunities for sustainable housing?
3. How creative and innovative are the materials for public display and methods of communicating with the public?

Contest 5 Innovation

The Innovation Contest considers how well teams demonstrate the capacity to go above and beyond existing boundaries to push the envelope of possibilities. Solving complex problems calls for creative thinking and stepping outside the box to envision and develop new solutions for designs, materials, and products for the homebuilding industry. The team that nails this

contest shows that it has the vision, as well as the nuts and bolts understanding, for innovative thinking that can make a difference.

As described in the first four Contests, Sustainability and Resilience; Architecture and Interior Design; Engineering and Construction; and Communications and Marketing, professional juries will evaluate each team's house for Innovation, according to targeted questions related to criteria for each of those contests. A combined total of the scores from these four separate juries will serve as the final score for the Innovation Contest.

Contest 6 Energy Efficiency

The Organization will use accredited software tools to calculate the [Home Energy Rating System \(HERS\) Index](#) for each competition housing unit. The lower the HERS Index, the more energy efficient the home. The Organization will use the accredited software tools to develop an energy model of each housing unit. They will use data collected from construction documents, direct measurement activities, and performance verification activities to develop model inputs and calibrate model outputs. As the Organization learns more about the housing units to refine model inputs, the HERS model will become progressively more accurate in predicting annual energy performance in the housing unit's permanent location.

A HERS Index less than or equal to 40 earns all available points. A HERS Index greater than 40 and less than 60 earns reduced points, scaled linearly. A HERS Index greater than or equal to 60 earns no points.

Notes:

- Renewable energy production is considered in the model and has the effect of reducing the HERS Index.
- The Organization may develop custom methods and tools for modeling innovative demand-side and supply-side energy systems and strategies that are not covered by the HERS standard.
- All supply-side and demand-side energy systems and strategies must comply with the OCSD Building Code.
- When a team fails to provide information that is required to develop well-documented and validated model inputs, the Organization will make conservative assumptions that will tend to increase the HERS Index.
- Teams are encouraged to use software such as the [Building Energy Optimization Tool \(BEopt\)](#) to identify cost-optimal combinations of efficiency measures and renewable energy production. The effective use of tools like BEopt may be considered by juries.
- Additional details about the model development and calibration process will be provided in the future.

Contest 7 Water Use and Conservation

The Organization will use approved standards and tools to calculate the [HERS_{H2O} Water Efficiency Index](#) for each competition housing unit. The lower the HERS_{H2O} Index, the more water efficient the home. The Organization will use the approved standards and tools to develop a water efficiency model of each housing unit. They will use data collected from construction documents, direct measurement activities, and performance verification activities to develop the model inputs and calibrate the model outputs. As the Organization learns more information about the housing units to refine model inputs, the HERS_{H2O} model will become progressively more accurate in predicting annual water efficiency performance in the housing unit's permanent location.

A HERS_{H2O} Index less than or equal to 40 earns all available points. A HERS_{H2O} Index greater than 40 and less than 60 earns reduced points, scaled linearly. A HERS_{H2O} Index greater than or equal to 60 earns no points.

Notes:

- The Organization may develop custom methods for modeling innovative demand-side and supply-side water systems and strategies that are not covered by HERS_{H2O} standard.
- All supply-side and demand-side water systems and strategies must comply with the OCSD Building Code.
- When a team fails to provide information that is required to develop well-documented and validated model inputs, the Organization will make conservative assumptions that will tend to increase the HERS_{H2O} Index.

Additional details about the model development and calibration process will be provided in the future.

Contest 8 Health and Comfort

Today's homes are safe spaces for shelter, meals, learning, professional work, recreation, entertainment, and social gatherings.

In each of the Subcontests for Contest 8 and Contest 9, teams and the Organization will inspect and test different facets of each housing unit to verify that they function as intended and have been installed and configured per the construction documents. House systems, equipment, appliances, facilities, and electronics are examples of house facets that require performance verification.

Although specific verification procedures may vary for different facets as appropriate, typical verification involves three steps:

1. Read the installation manual, operators manual, and/or relevant content in the construction documents to understand how the house facet should be installed and configured and how it should function.

2. Inspect and/or operate the facet under typical operating conditions and using typical operating modes. Make observations and/or record measurements during inspection and operation.
3. Upon review of the recorded observations and/or measured data, determine if the facet functions as intended and if the facet has been installed and configured per the construction documents.

If all house facets within a particular category (e.g., Subcontest) function as intended and are installed and configured as presented in the construction documents 100% of available points will be awarded for the Subcontest. Partial points between 0% and 100% of available points will be awarded for partial functionality and/or partially accurate representation in the construction documents.

8.1 Whole House Systems

Demonstrate that HVAC, PV/batteries, hot water, and other whole-house systems and their components are installed and configured per the construction documents and function as intended.

8.2 Bathroom Facilities and Plumbing

Demonstrate that all bathroom facilities (shower, water closet, lavatory, etc.), including plumbing, are installed and configured per the construction documents and function as intended.

Contest 9 Lighting and Appliances

See Contest 8 introduction for a general discussion of performance verification procedures and scoring methodologies. The discussion also applies to Contest 9.

9.1 Lighting

Demonstrate that all lighting and daylighting components, including controls, are installed and configured per the construction documents and function as intended.

9.2 Kitchen and Laundry

Demonstrate that appliances such as the refrigerator, freezer, dishwasher, cooktop, clothes washer, and clothes dryer are installed and configured per the construction documents and function as intended.

9.3 Home Office, Security, and Electronics

Demonstrate that all home office, security, and electronic entertainment systems and components are installed and configured per the construction documents and function as intended.

Contest 10 Shared Experiences

Today's post-pandemic lifestyles center on the home more than ever before. Consumers are looking for smart, adaptable housing that can accommodate a wide spectrum of needs.

10.1 Dinner Gatherings

Each team will host a neighborhood dinner gathering that includes two Decathletes from the host team and four Decathletes from other teams. Dinner Gatherings will take place on a weekday during the competition with a duration of at least 1.5 hours. This Subcontest validates a fully functional house that includes visitors. To earn full points, teams must comply with the following requirements.

Host at least four guests. Guest selection from specific teams will be determined in advance by the Organization.

- Prepare and cook all food and beverages in the house.
- Serve a complete meal with an adequate amount of food for all guests at appropriate serving temperatures and in a timely manner.
- Serve the meal and have all attendees consume the food in the finished square footage of the house or in an area adjacent to the house, such as an outdoor deck or terrace.
- Comply with the following rules for health and safety:
 - Do not use any flames, including candle flames.
 - Do not serve or use any alcoholic beverages.
 - Use only drinking water purchased in sealed containers.
 - Wash and rinse all dishes and cookware after use.
 - Store all food and beverages properly.
 - Do not use coolers to store food, beverages, or ice.

An Observer appointed by the Organization will use a checklist provided by the Organization to document that all criteria listed above are sufficiently met. Teams will earn full points for sufficiently meeting these criteria. The Observer will also note in writing any specific comments from Decathlete dinner guests about the experience, such as the meal, ambience, host team preparation and courtesy, and any other details that influence the shared gathering.

10.2 Shared Entertainment

Each team will host a Shared Entertainment evening of at least 1.5 hours in duration for decathlete neighbors on a weekday during the competition. The Shared Entertainment will include two Decathletes from the host team and four Decathletes from other teams. This Subcontest demonstrates that the house is equipped to successfully provide for relaxation and fun. The entertainment is somewhat open-ended to encourage teams to be creative.

Teams will plan and organize entertainment that the intended homebuyer(s) for this house, as well as competition participants, will enjoy. They can choose to play games (physical games, verbal games, or board games), offer music, teach new dances and/or songs, devise mystery “whodunit” scenarios, develop open-ended storytelling, or create mind challenges that engage participants in problem solving or cognitive challenges. To earn full points, teams must comply with the following requirements:

- Host at least four guests. Guest selection from specific teams will be determined in advance by the Organization.

Prepare and organize specific plans for the entertainment to be presented. Teams are encouraged to provide clear written or verbal instructions so that everyone understands the expectations.

- Provide leadership during the entertainment, so that everyone knows what to do, participates fully, and enjoys the time together.
- Show respect for others at all times and support anyone who needs assistance with the planned activities.

An Observer appointed by the Organization will use a checklist provided by the Organization to document that all criteria listed above are sufficiently met. Teams will receive full points for sufficiently meeting these criteria. The Observer will also note in writing any specific comments from Decathlete guests about the experience, such as the activities chosen, host team preparation and courtesy, leadership demonstrated, and participant response.

Teams must comply with the following rules for health and safety:

- Areas used for entertainment must be ADA accessible and free of any safety hazards.
- Entertainment chosen must be appropriate for the designated audience and free of any offensive language or experiences.

SECTION III GENERAL RULES

Rule 1 Authority

1.1 Director

The Director has final decision-making authority in all aspects of the competition and the authority to overrule any other Organizer on any matter.

1.2 Competition Manager

The Competition Manager is the lead Rules Official whose primary responsibility is administering the contests fairly and efficiently.

1.3 Rules Officials

The Rules Officials are the only Organizers authorized to interpret the official rules.

- a. If there is any doubt or ambiguity as to the wording or intent of these rules, the decision of Rules Officials prevails.
- b. Printed, electronic, and verbal communications from Rules Officials are considered part of, and have the same validity as, these rules.

1.4 Organizers

Occasionally, a Rules Official may not be immediately available to make a time-sensitive decision. In those cases, Organizers are authorized to enforce the rules in any manner that is, in their sole judgment, required for the fair and efficient operation or safety of the competition.

1.5 Staff and Volunteers

OCSD staff and volunteers are not authorized to enforce the rules under any circumstances.

Rule 2 Administration

2.1 Precedence

If there is a conflict between two or more rules, the rule with the later date takes precedence.

2.2 Violations of Intent

A violation of the intent of a rule is considered a violation of the rule itself.

2.3 Effective Date

The latest version of the Rules posted on the Team Portal and dated for the year of the event represents the Rules in effect.

2.4 Official Communications

Teams have responsibility to stay current with official communications about the competition. Official communications between Teams and the Organization occur through, but are not limited to, one or more of the following:

- a. **Team Portal:** Official communications suitable for viewing by all Teams are posted on the Team Portal message board. The Team Portal includes a section for posting files. Other Team Portal features are used for various purposes. Instructions for joining the Team Portal are provided to each team immediately following the selection of teams.
- b. **Competition Manager e-mail (rules@ocsd23.com):** For confidential communications or the transfer of small (<5 MB), confidential files, teams may e-mail the Competition Manager. The content of communications sent to this e-mail address remains confidential, unless a Team grants permission to the Competition Manager to divulge the content of these communications to other Teams. See the exception in rule 2.5 for more information about confidentiality.
- c. **Conference calls:** Teams are strongly encouraged to participate in regularly scheduled conference calls with the Organization. Invitations and instructions for participation in conference calls are provided via the Team Portal.
- d. **Meetings:** Before the event, OCSD Teams and the Organization may have one or more in-person meetings. Notification of the date(s) and agenda(s) for meeting(s) is made via the Team Portal. During the event, a meeting is held the day before assembly begins. Daily meetings are also held throughout the event.
- e. **E-mail:** For expediency and to protect confidentiality, the Organization may choose to communicate with Teams via team member e-mail addresses listed in the Team Portal. However, most official communication occurs via the Team Portal.

2.5 Decisions on Rules

Decisions on OCSD Rules offers interpretations of the Rules contained in this document, the OCSD Rules.

After the Rules Officials make a decision that may, in their opinion, directly or indirectly affect the strategies of all Teams, the Rules Officials add the decision to “Decisions” on OCSD Rules and notify Teams of the addition via the Team Portal.

Exception: If such a notification would unfairly reveal the strategies of one or more individual Teams, the Organization may, depending on the circumstances, refrain from notifying all Teams of the decision.

2.6 Self-Reporting

Teams must self-report obvious or suspected rules infractions that have occurred or may occur.

- a. OCSD Rules do not address every possible scenario that may arise during the competition. Therefore, a team considering an action that is not explicitly permitted by the Rules should ask the Rules Officials for a decision before proceeding with the action.

If the Team does not ask for an official decision, it puts itself at risk of incurring a penalty.

- b. The Rules Officials and Director exercise discretion when determining the penalty for a rules infraction. Rules infractions observed by Rules Officials, Organizers, or other teams, (e.g., not self-reported by the team committing the infraction) may be subject to more severe penalties than self-reported rules infractions.

2.7 Penalties

Teams committing rules infractions are subject to one or more of the following types of penalties, depending on the severity of the infraction: 1) point penalty applied to one or more contests; 2) disqualification from part, or all, of one or more Contests or Subcontests; or 3) disqualification from the competition.

- a. Rules Officials determine the severity of rules infractions and classify them as **minor** or **major**.
- b. Rules Officials are authorized to apply point penalties and disqualify a team from part, or all, of one or more contests or subcontests as a consequence of **minor** rules infractions.
- c. Rules Officials report to the Director all **major** rules infractions. The Director is solely authorized to apply point penalties or disqualify a team from the competition or from part, or all, of one or more contests or subcontests for **major** rules infractions.
- d. Disqualification from the competition requires prior notice to the Team and an opportunity for the Team to make an oral or written statement on its behalf.
- e. The Competition Manager notifies all Teams via the Team Portal when a penalty has been assessed against any Team. The notification includes the identity of the Team receiving the penalty; a brief description of the infraction, including its severity, (minor or major); and a brief description of the penalty.

2.8 Protests

Official written protests may be filed by a Team for any reason. A filing fee of up to 10 points may be assessed to the Team filing the protest, if the protest is deemed by the Protest Resolution Committee to be frivolous.

- a. Teams are encouraged to communicate with Rules Officials to resolve issues and complaints before resorting to the protest process. Protests should be filed only if a) the Team and the Rules Officials are unable to resolve the dispute themselves; or b) the Team or Rules Officials are too busy to engage in discussions that may result in resolution of the dispute without a protest.
- b. Protests must be submitted between 8 a.m. and 6 p.m. local time, and within 24 hours of the action being protested. The final opportunity to file a protest is 5 minutes following the conclusion of the final contest on the final day of contest week.

Exception: The results of one or more contests may be announced during the final awards ceremony. The results of contests announced during the final awards ceremony may not be protested.

- c. The protest must be submitted to the Competition Manager in a sealed envelope. It must include the name and signature of a decathlete, the date of the protest submission, an acknowledgment that a 10-point filing fee may be assessed, and a clear description of the action being protested.
- d. The protest resolution procedure follows:
 - (i). Competition Manager convenes the Protest Resolution Committee.
 - (ii). Competition Manager submits the sealed envelope containing the Team's written protest to the Committee. Unless the Competition Manager is called by the Committee to testify, he is not permitted to read the protest until after the Protest Resolution Committee has submitted its written decision.
 - (iii). The Committee opens the envelope and reads the protest in private. No appearance by Organizers or team members is authorized during the Committee's private deliberations. No right to counsel by Organizers or team members is authorized.
 - (iv). The Committee notifies Competition Manager if it would like to call any individuals for testimony. Competition Manager notifies individuals called for testimony. The Committee may call the Competition Manager for testimony.
 - (v). Testimony is provided by individuals called by the Committee.
 - (vi). The Committee notifies the Competition Manager of its decision in writing and indicates how many points will be assessed as a filing fee. The decision of the Committee is final, and no further appeals are allowed.
 - (vii). If the decision involves changes to a Team's score or the assessment of a filing fee, the Competition Manager notifies the Scorekeeper of the changes, and the Scorekeeper applies the changes to the scoring server.
 - (viii). Competition Manager posts a copy of the written protest and decision on the Team Portal.

Rule 3 Participation

3.1 Entry

OCSD is open to colleges, universities, and other post-secondary educational institutions. Entry is determined through a proposal process. All proposals are reviewed, scored, and ranked. Subject to the quantity and quality of proposals, a limited number of teams will be selected for entry.

3.2 Contact Information

Each team must enter contact information in the Team Portal for the team officers listed in Table 3 and must keep contact information current for the duration of the competition.

- a. If a team's internal officer titles do not exactly match those listed in Table 3, each team must provide the contact information for the person fulfilling each of the areas of responsibility described in the second column.
- b. Teams must provide the contact information for only one person in each officer position.

- c. An individual may have multiple officer titles.
- d. Faculty members are only eligible to fill the “faculty advisor” team officer position. Eligible Decathletes must fill all other team officer positions.

Table 3: Team officers for participating OCSD teams

Title	Responsibilities
Primary student contact	Ensures that official communications from the Organization are routed to the appropriate team member(s)
Project manager	Leads project planning and execution
Public relations contact	Works in conjunction with the Organization to coordinate team interactions with the media
Construction manager	Responsible for planning and oversight of the construction, transport, assembly, and disassembly of the house
Architecture project manager	Responsible for the architectural design effort; license not required
Project engineer	Responsible for the engineering design effort; license not required
Performance Verification POC	Serves as the primary point-of-contact (POC) for all activities related to the performance verification contests
Safety officer	Responsible for developing and ensuring compliance with the Environment, Health, and Safety Plan for the team
Faculty advisor	Serves as the lead faculty member and primary representative of a lead participating school; also provides guidance to the team throughout the project
Sponsorship manager	Responsible for recruiting team sponsors and ensuring compliance with Rule 10.3

3.3 Safety

Each team is responsible for the safety of its operations. If a hazardous condition is identified, the Organization may issue a stop work order at any time during the competition. The duration of the stop work order is at the discretion of the Organization; lost work time will not be compensated.

- a. Each team member and team crew member must work in a safe manner at all times.
- b. Each team must supply all necessary personal protective equipment (PPE) and safety equipment for all workers and visitors during the competition.

- c. During assembly and disassembly, a minimum level of PPE—hard hat (ANSI Z89.1 or equivalent, Type I, Class G or better); safety glasses with side shields (ANSI Z87.1 or equivalent); shirt with sleeves at least 3 in. (7.6 cm) long; long pants (the bottoms of the pant legs must, at a minimum, touch the top of the boots when standing); a Class 2 high-visibility reflective vest, shirt, or jacket; and safety boots (ANSI Z41 PT99 or equivalent) with ankle support—must be used by each team member and team crew member. Additional PPE or safety equipment must be used if required for any task being performed.
- d. Individuals under the age of 18 are not permitted to be on team sites during assembly and disassembly.

3.4 Conduct

Improper conduct, the use of alcohol or marijuana, and the use of illegal substances are not permitted on the competition site at any time. Improper conduct may include, but is not limited to, improper language, unsportsmanlike conduct, unsafe behavior, distribution of inappropriate media, and cheating.

3.5 Use of Likeness, Content, and Images

Team members and crew agree to the use of their names, likenesses, content, graphics, and photos in any communications materials issued by the Organization and event sponsors.

- a. Content and images (graphics and photos) may be viewable and made available to the general public via digital and printed collateral material with unrestricted use.
- b. The Organization and event sponsors will make all reasonable efforts to credit the source of content and images, although they may be published without credit.

Exception: If a team submits content or images that it would like kept confidential, it should make that request, with an explanation, in writing to the recipient of the content or images. Every effort will be made to honor requests for confidentiality until the end date of the competition, when all confidentiality requests expire.

3.6 Withdrawals

Any team wishing to withdraw from the project must notify the Competition Manager in writing. Any team considering withdrawal should communicate early and frequently with the Director. All written withdrawals signed by a faculty advisor are final.

Rule 4 Site Operations

4.1 Damage Liability

Each team is financially responsible for any damage to the competition site caused by any Team, except as allowed under Rule 4.3.

4.2 Construction Equipment

- a. While on the competition site, teams may use only heavy construction equipment that has been declared in the construction documents and subsequently approved by the Organization.
- b. Upon arrival at the competition site entrance, operators of truck-mounted cranes, trailers, semi-trailer trucks, etc. must drive their vehicles to a designated staging area. When they are instructed to drive from the staging area to the designated house site, vehicle operators must follow established paths and the Organization's pre-planned schedule.
- c. Vehicle operators must respect the Organizer-established internal circulation routes.
- d. Each team is permitted a maximum of two vehicles in the village at any one time. Vehicles must be parked in either the team staging area or directly adjacent to the team lot.
- e. Equipment or tools that are deemed unsafe by the Organization or do not comply with applicable requirements of the Occupational Safety and Health Administration (OSHA) or other applicable regulatory standards are prohibited on the competition site.

4.3 Ground Penetration

Ground penetration is permitted only for the approved means of wind tie-down and electrical grounding needed to meet OCSD Building Code requirements.

4.4 Impact on the Competition Site

Low-impact footings must be used to support all house and site components.

- a. All footings must comply with the bearing pressure criteria specified in the OCSD Building Code.

4.5 Construction Power and Lighting

Generators are permitted to power tools and construction lights during assembly and disassembly. Ambient site lighting will be provided by the Organization during the assembly period.

- a. Teams must supply their own power for construction purposes.
- b. Engine generator noise levels must not exceed 60 dB (A) at 50 ft (15 m) under full load. Note that a given dB level at one distance can be converted to an equivalent dB at a different distance.
- c. Teams must supply their own task lighting as needed to operate safely.

4.6 Spill Containment

The release of water and other liquids onto the competition site or into nearby storm drains is prohibited without advance approval from the Organization.

4.7 Lot Conditions

Minor vertical elevation changes up to 4 in. (10 cm) may exist across a team site, and the lateral position of each team site, as shown in the competition site plan, is imprecise and subject to change. Design and plan accordingly.

Rule 5 Building Envelope

5.1 Lot Size

All house and site components must be located and remain within the lot boundaries for the assigned team lot. Lots are 80 ft (24.4 m) east to west by 60 ft (18.3 m) north to south.

5.2 Height Limit

The maximum vertical height of the house and all site components must be less than or equal to 18 ft (5.49 m) above the maximum grade elevation within the lot boundaries.

- a. Small weather stations, antennas, air vents, and other similar components may be specifically exempted from Rule 5.2 if all of the following conditions are met:
 - (i). The Team makes a request for an exemption to the Competition Manager.
 - (ii). The Team can prove to the satisfaction of the Competition Manager that the component is not significantly restricting a neighbor's right to the sun.
 - (iii). Competition Manager determines that the component is sufficiently unique in function and small in size to warrant an exemption.
- b. Moveable or convertible house or site components must not violate the height limit during live demonstrations or in printed or electronic media presented by the Team during jury visits, public exhibit hours, or contests.

Rule 6 The House

6.1 Structural Design Approval

Each Team must submit structural drawings and calculations that have been stamped by a qualified, licensed design professional.

- a. By stamping the structural drawings and calculations, the licensed professional certifies that the structural provisions of the OCSD Building Code have been met by the design, and that the structure is safe for the public to enter if it is built as designed.
- b. The licensed professional must stamp the structural drawings and calculations of the house and all site components that might pose a threat to public safety if they fail.

6.2 Finished Square Footage

The finished square footage, as defined by ANSI Z765-2003, "Square Footage—Method for Calculating," must be at least 800 ft² (74.3 m²) but must not exceed 1200 ft² (111.5 m²).

- a. If the building has convertible or moveable components, the maximum and minimum square footages observed during live demonstrations or shown in printed or electronic

media presented by the Team during jury visits, public exhibit hours, or contests count as the maximum and minimum square footages of record, respectively.

6.3 Entrance and Exit Routes

- a. The main house entrance may be placed on any side of the house. However, an accessible route leading from the main street of OCSD village to the main house entrance must be provided.
- b. The house exit route must lead from main house exit to the main street of OCSD village. **Possible Exception:** Pending the approval by the Organization, teams on “corner lots” may modify the exit route so that it empties onto a “cross street.” Teams requesting this option must provide an alternate site plan in the construction documents that shows an exit to the cross street. The alternate site plan will be considered if the Team is situated on a corner lot. However, the location of corner lots will not be known with certainty until the beginning of assembly.
- c. Teams must clearly illustrate and label the entrance and exit routes between lot boundaries and house entrance/exit in the construction drawings.

6.4 Competition Prototype Alternates

Alternates to the competition prototype must not be proposed in materials intended for consideration by the Sustainability and Resilience, Architecture and Interior Design, and Engineering and Construction juries. Team websites and public exhibit communications materials are not subject to this rule.

- a. Renderings and other graphical representations must show only the competition prototype house and associated competition prototype site components on a featureless 80 ft-by-60 ft lot. The featureless lot has a flat, uniform ground covering to be specified by the team.
- b. Natural and man-made features, including adjacent competition prototypes, located near the target client site may be depicted, but must be located outside of lot boundaries.
- c. Teams must not propose alternates to address local building code provisions and site restrictions at the target client site. Juries will be instructed to assume that OCSD Rules and Building Code also apply at the target client site.
- d. Public exhibit communications materials are not considered part of the competition prototype and, therefore, must not be shown in renderings or other graphical representations.

Rule 7 Vegetation

The use of potted vegetation is permitted on assigned Team lots at the event site. All potted vegetation must comply with rules 4.4 and 4.6.

7.1 Placement

Vegetation may be moved around the lot prior to contest week, after which it must remain stationary until the conclusion of contest week, unless drawings clearly show how some or all vegetation is designed to be moved as part of an integrated system.

7.2 Watering Restrictions

Greywater that might contain living organisms that could go septic must not be used to water vegetation at the OCSD competition site.

Rule 8 Energy

8.1 Competition Site Constraints

Grid interconnection is not available at the competition site. Therefore, houses must operate autonomously during contest week.

- a. Energy sources and storage intended only for use on the competition site must comply with Rules 8.3 and 8.4.
- b. To avoid confusing OCSD village visitors and jurors, energy sources and storage intended only for use on the competition site must be clearly identified as such in design deliverables; they must be physically labeled with Organizer-provided labels while the house is at the competition site.

8.2 PV Technology Limitations

- a. Bare photovoltaic cells and encapsulated photovoltaic modules must be commercially available to all teams by the beginning of the event.
- b. Substantial modification of the crystal structure, junction, or metallization of PV cells or systems constitutes manufacture of a new cell and is not allowed.

8.3 Energy Sources

OCSD houses must be all-electric and designed to consume only grid electricity and electricity generated within the lot boundaries.

- a. House designs must not include facilities capable of directly consuming non-electrical fuel sources, such as wood, natural gas, propane, oil, hydrogen, etc., unless all the fuel is generated within the lot boundaries.
- b. Electric vehicle systems designed to push power from EV batteries to the electrical system of a house will be treated as de-facto extensions of the utility grid in the energy models for the energy performance rating.

8.4 Batteries

Hard-wired battery banks, large plug-in uninterruptable power supplies (UPS), and devices with small secondary (rechargeable) batteries designed to be recharged by the electrical system of the house are permitted in the designs.

- a. Batteries include most commercially available energy storage devices, such as electrochemical batteries and capacitors.
- b. The use of primary (non-rechargeable) batteries (no larger than “9V” size) is limited to smoke detectors, remote controls, thermostats, alarm clock backups, and other small devices that typically use small primary batteries.

8.5 Desiccant Systems

If a desiccant system is used, it must be regenerative.

- a. To enable verification that the desiccant system is regenerative, the desiccant material or device must be easily measurable.
- b. Some desiccant systems with very low moisture storage capacities may be exempt from this requirement. Exemptions will be granted on a case-by-case basis.

Rule 9 Liquids

9.1 Competition Site Constraints

Teams are not permitted to connect their houses to the municipal supply, sewer, or storm water networks on the competition site. Instead, they may request a one-time water delivery from the Organization, subject to the limitations and regulations described in Rule 9.9.

- a. Teams must provide the means to store the requested supply water, deliver the water to the water supply system for the house, and store all water outputted by the drain-waste-vent (DWV) system of the house.
- b. To avoid confusing OCS D village visitors and jurors, water storage and distribution vessels, pipes, and additional components intended only for use on the competition site must be clearly identified as such in the design deliverables; they must be physically labeled with Organizer-provided labels while the house is at the competition site.

9.2 Container Locations

- a. Primary supply water and greywater containers must be located outside of the finished square footage of the competition house. These containers may not be located below the finished square footage.

Exception: Teams may utilize one or more small tanks to accept wastewater discharge in preparation for delivery to the main wastewater tank(s), up to a maximum aggregate volume of 20 gallons.

- b. Solar storage, hot water, or other thermal storage containers may be located within the finished square footage of the competition house.
- c. The primary supply water tank(s) must be fully shaded from direct solar radiation between 9 a.m. and 5 p.m. PDT or between 8 a.m. and 4 p.m. solar time throughout Contest Week.

9.3 Team-Provided Liquids

A team may provide its own liquids for the following purposes:

- a. Personal hydration
- b. Irrigation [one-time delivery before water delivery day, 50-gallon (189 L) limit, water only]
- c. Thermal mass (quantity limited by soil bearing pressure limit and rule 4.4; see rule 9.7 for restrictions)
- d. Food preparation
- e. Hydronic system pressure testing¹
- f. Small volumes of glycol, deionized water, or other working fluids for thermodynamic systems that use working fluids other than non-potable water
- g. Assembly (e.g., hydraulic fluid), finishing (e.g., paint), and cleaning (e.g., mineral spirits).

9.4 Greywater Reuse

A team may reuse greywater for irrigation purposes only.

- a. Greywater reuse systems must comply with rule 7.2.

9.5 Rainwater Collection

A team may collect rainwater that falls on its site and use it in, or as, any of the following:

- a. Irrigation source
- b. Water feature
- c. Heat sink or heat source

9.6 Evaporation

Water may be used for evaporation purposes.

9.7 Thermal Mass

Teams may use liquids as thermal mass.

- a. Thermal storage containers must be filled and sealed before their arrival on the competition site. They must remain sealed until removed from the competition site by Teams.
- b. Thermal storage containers must be isolated, and the contained liquid must not circulate to other containers or systems.

9.8 Greywater Heat Recovery

Heat may be recovered from greywater as it flows from the drain to the waste tank. “Batch”-type greywater heat recovery is prohibited.

¹ The water may only fill isolated loops; it must not enter tanks.

9.9 Water Delivery

A team may request up to 1500 gallons of water from the Organization in its detailed water budget.²

The procedure and associated requirements for water delivery follow.

- a. On water delivery day, two water trucks begin at the southeast and northwest corners of the competition site in the morning and proceed to service each house. Each truck will be equipped with a pump to aid in water supply delivery.
- b. Each Team must provide six people, on command, to help move the water hose to their house from the previously serviced house.
- c. After the two trucks have serviced all houses once, they will circle the village again to service any house that needs a container “topped off.”
- d. Teams that delay the water supply process or request additional water after the trucks have completed their second circle around the village are subject to a penalty and a delay in receiving their water. Instead of, or in addition to, a penalty, these teams may be required to pay for their own water. Teams required to pay for their own water supply must use a company approved by the Organization.
- e. The design deliverables must clearly indicate the fill location(s), quantity of water requested at each fill location, container dimensions, diameter of the opening(s) (minimum 4 in., or 10 cm), and clearance above the container(s) fill location(s) (minimum 12 in., or 30.48 cm). All openings must be easily accessible.
- f. Teams are responsible for distributing water for use within their houses. This includes all necessary pumps, containers, lines, valves, etc. All pumping power to distribute water must be delivered by an AC circuit.

9.10 Water Removal

The procedure and associated requirements for water removal follow.

- a. On water removal day, two water trucks begin at the middle of the village and proceed toward the northwest and southeast to service each house. Each truck will be equipped with a pump to aid in water removal.
- b. Each Team must supply six people, on command, to help move the water hose to their house from the previously serviced house.
- c. After the two trucks have serviced all houses once, they will circle the village again to service any house that needs remaining water removed.
- d. Teams that delay the water removal process may be required to pay for their own water removal. Teams required to pay for their own water removal must use a company approved by the Organization.
- e. The design deliverables must clearly indicate the removal location(s), quantity of water to be removed from each removal location, container dimensions, diameter of the

² The detailed water budget must be included in the Project Manual.

opening(s) (minimum 4 in., or 10 cm), and clearance above the container(s) fill location(s) (minimum 12 in., or 30.48 cm). All openings must be easily accessible.

- f. Teams are responsible for either removing remaining water from the site or moving remaining water to the designated removal locations.

Rule 10 The Event

10.1 Registration

All OCSD event participants must register through the online registration site or at the competition site.

- a. The following rules apply to all registrants:
 - (i). Each event participant must register individually. Group registrations are not allowed.
 - (ii). When registering, event participants must complete all required information and forms before access to the event.
- b. Organizers, team members, and staff must provide a photo. To avoid delays, registrants should use the online registration site and submit completed forms, information, and photos prior to the event. Once all information, forms, and photos are received, the Organization will issue an event security ID, which must be visible at all times while on the competition site.

Exceptions:

- Team crew members are not required to submit a photo. Due to safety concerns, site access for team crew may be restricted.
- Visiting media are not considered event participants and are not required to register, but those individuals must check in at event headquarters. Due to safety concerns, site access for visiting media may be restricted.

10.2 Event Sponsor Recognition

All communication materials produced by Teams concerning the competition (including team websites) must refer to the competition as the “Orange County Sustainability Decathlon” or “OCSD”.

- a. Teams are required to use the OCSD brand on all communications materials visible on the competition site. The OCSD brand must be at least three times the size of all other brands.
- b. The OCSD brand is the only required graphical element.
- c. Team uniforms are exempt from rule 10.2. See rule 11.5 for specifics.

10.3 Team Sponsor Recognition

Team sponsors may be recognized with text, brands, or both, but any text or brands must appear in conjunction with the OCSD brand.

- a. Rule 10.3 applies, but is not limited to, all communications materials that will be on display or distributed at the competition site.
- b. The combined area of all marketing and communications materials or other products that are located on the team lot and exist largely for the recognition of sponsors is limited to 20 ft² (1.89 m²). “Other products” include, but are not limited to, signs, exhibits, posters, plaques, photos, wall art, and furnishings.
- c. For multimedia or audio presentations shown on the competition site, no more than 20% of the total time, one minute, or whichever is less, may be dedicated to recognition of team sponsors.
- d. Labels that feature a built-in manufacturer’s brand are acceptable and need not be accompanied by the OCSD brand.
- e. Team uniforms are exempt from rule 10.3. See rule 11.5 for specifics.

10.4 Logistics

- a. Each team is responsible for the transport of its house, contents of the house, and all necessary tools and equipment. Each team is responsible for any damage to or loss of such items.
- b. Each team is responsible for procuring all necessary equipment, tools, and supplies.
- c. Each team is responsible for transportation, accommodations, lodging, food, and beverages.
Exception: The Organization will provide drinking water for the duration of the event.
- d. Each team is responsible for making its own arrangements and to cover all necessary costs.

10.5 Inspections

Each project will be inspected for compliance with the OCSD Rules and Building Code.

- a. A team must notify the appropriate inspector when it is ready for a formal inspection.
- b. Random compliance checks may occur at any time.
- c. All final inspections must be “passed” by the end of the inspectors’ workday, in order for a team to be eligible to participate in contests on the next day. The Competition Manager will check each team’s inspection status, as indicated on the team’s official inspection card, to determine which houses are eligible to participate in contests.
Exception: Jury visits will proceed as scheduled, regardless of a team’s inspection status. However, jurors may be aware of the team’s inspection status and may consider this in their evaluations.
- d. Open, partially functioning houses are preferable to closed, fully functioning houses, the Organization may direct inspectors to require that an unsafe condition be corrected, in order to allow public visits—even if, as a consequence, the house is ineligible for participation in contests.

Rule 11 Contest Week

11.1 House Occupancy

- a. The number of house occupants must never exceed the occupancy limit established by the OCSD Building Official.
- b. Teams must promptly comply with temporary and scheduled Organizer requests for reduced occupancy to allow for contest operations, inspections, VIP visits, media visits, fire drills, etc.

11.2 House Operators

Only Decathletes from each team are permitted to actively operate their own house and participate in contests during contest week.

- a. All competition-related communications on the competition site must be between OCSD Organizers and Decathletes.

11.3 Late Design Changes

Each house assembled on the competition site must be consistent with the design and specifications presented in the as-built deliverables.

- a. If there are known inconsistencies between the house and the as-built deliverables, the team must document these inconsistencies and submit documentation to the Competition Manager as soon as possible after the inconsistency is known.

11.4 Public Exhibit

- a. Teams are required to provide an accessible route to all areas of the house and site that are available to the public during exhibit hours.
- b. Teams are permitted to produce and distribute no more than one informational brochure or handout at the competition site.
- c. Teams must develop signage that complements public exhibit tours by informing visitors about the team house and engaging visitors who are waiting in line for a tour.
- d. Only the Organization and Organizer-approved vendors may provide food and beverages to the general public at the competition site.

11.5 Team Uniforms

- a. During contest week and special events specified by the Organization, all team members present on the competition site or the site of a special event must wear uniforms that represent their team.
- b. Team uniforms are exempt from rules 10.2 and 10.3.
- c. Team sponsor brands are approved to be visible ONLY on the back of the team uniform (jacket, shirt, hat, or other wearable item).

- d. The only information or graphics approved to be visible from the front of the team uniform (jacket, shirt, hat, or other wearable item) are the name of institution and its brand, the team name and brand, and the OCSD brand.
- e. A built-in clothing manufacturer brand may be visible on the front or back of the team uniform, or both.

11.6 Impound

Each house will be impounded on specified nights under the direct supervision of the Organization or staff. Team members and team crew must not occupy the site during impound hours.