

A person is climbing a grey rock wall with various colorful holds (yellow, blue, purple, red, green). The climber is wearing a yellow hoodie and dark pants, and is holding a purple rope. The background is a blurred view of the climbing wall.

# INDUSTRY PRACTICES

A Sourcebook  
for the Operation  
of Manufactured  
Climbing Walls

Third Edition



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**CLIMBING WALL ASSOCIATION, INC.**

**INDUSTRY PRACTICES**

**A SOURCEBOOK FOR THE OPERATION OF  
MANUFACTURED CLIMBING WALLS**

THIRD EDITION



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## **A SOURCEBOOK FOR THE OPERATION OF MANUFACTURED CLIMBING WALLS**

**THIRD EDITION  
July, 2007**

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# INTRODUCTION

## ***Mission of the Climbing Wall Association***

The mission of the Climbing Wall Association is to support the growth, health, independence and professionalism of the climbing wall industry.

## ***Industry Practices Overview***

The purpose of the Industry Practices is to raise awareness of standard climbing practices for those operating recreational climbing wall facilities. The industry practices are intended to assist the climbing wall industry and climbing wall facilities in defining, understanding, and implementing a set of responsible management, operational, training, and climbing practices.

The Industry Practices are intended to address climbing as a sport and not climbing activities conducted as if they were “amusement rides.” Climbing is a serious sport that necessarily involves the acquisition of knowledge, development of skills, taking risks, and the exercise of good judgment developed over time. Activities that do not actively engage and involve the person in recreation, learning, growth, challenge, development, and competency do not have the essential characteristics of a sport, and certainly not the sport of climbing.

While the Industry Practices provide a framework to assist climbing wall operators in developing responsible risk management practices. Specific ways of addressing these concerns will vary with the mission and purpose of the organization, the facility design, equipment in use, employees, clients, and other factors. The Industry Practices do not purport to provide specific solutions to climbing management issues.

The Industry Practices are intended to be flexible, not rigid standards that mandate compliance under all circumstances. In this regard, it is valuable to note that professional judgment is an important element in any recreational program or activity, climbing or otherwise. Although the Industry Practices represent an industry effort to outline responsible industry practices, professional judgment may, in a given circumstance, justify a deviation from an industry practice or practices when a deviation is in the best interest of the client’s health, safety or well-being.

The Industry Practices have been developed through a collaborative effort by members of the climbing wall industry and review by industry experts. As such, it is a dynamic document that will be periodically reviewed and revised as practices evolve.

The document is divided into six chapters. Each chapter includes “practices” that are numbered, bolded and italicized. Labeled “Comments” provide discussion, explanation, or examples pertaining to the practice and are intended only for clarification as to the intent of the listed practice. Annexes regarding selected topics follow the text.

## **Limitations of the Industry Practices & Disclaimer**

The Industry Practices are intended for use by experienced professionals in the climbing industry. Misuse or improper interpretation of the Industry Practices may result in serious injury or death. The CWA reserves the exclusive right to issue or not to issue official interpretations of any of the practices listed herein. Requests for interpretations must be made in writing to the CWA.

The Industry Practices do not attempt to encompass every possible practice that may be desirable in a given circumstance. Furthermore, compliance with the Industry Practices does not guarantee that a climbing facility will be completely safe, or that clients' use of facility's equipment or participation in facility's climbing activities or programs will be free from harm.

All wall owners, operators, employees, clients, participants, or others using or accessing a climbing wall facility must understand that climbing, whether indoors in a climbing facility, or outside, is a technical sport involving inherent and other risks, hazards and danger that can lead to damage to equipment or property and injury, or death.

Climbing is dangerous! In choosing to engage in climbing activities, participants understand that they assume responsibility for their own actions, and for any losses or injuries they suffer, resulting from the inherent and other risks of these activities.

CWA disclaims all duty, responsibility, or liability to climbing wall owners, operators, employees, clients, participants, and other parties for any injury, death, or other loss resulting from any cause, including any cause claimed to be a result of a person's or organization's adherence to, or failure to adhere to, the Industry Practices.



## **Chapter 1: Professional Ethics**

### ***1.01 Professionals conduct their work with respect for the rights and dignity of their peers, employees, and clients.***

Comment: Professionals perform their work in a manner which commends their profession and commands the respect of their peers, their clients, and the public. Professionals respect the fundamental rights and dignity of persons including respect for privacy, confidentiality, self-determination, taking of personal responsibility, and informed decision-making. Professionals endeavor to treat each peer, employee, or client in a manner that respects the person's rights, responsibilities, and need for information regarding a professional product or service.

### ***1.02 Professionals conduct their work in a manner consistent with accepted standards and commonly accepted practices of their profession.***

Comment: Professionals seek to promote integrity, quality, trust, and consistency in the practice of their chosen profession. Professionals support, assist in the development of, and promote sound practices and ethical behavior in their profession in order to advance the profession and protect the public.

### ***1.03 Professionals conduct their work with competence, and practice within the boundaries of that competence.***

Comment: Professionals strive to maintain high standards of performance and quality in their work; seek appropriate education; participate in ongoing training; maintain current knowledge; hold appropriate credentials (if applicable); and exercise reasonable judgment in the conduct of their work. Professionals also recognize the boundaries of their competence and do not provide services outside of those boundaries. Professionals provide services only after developing competence; and/or seeking appropriate supervision, consultation, or advice where necessary. When practicing in areas where standards or guidelines do not exist, professionals take reasonable steps to acquire the information and develop the skills necessary to practice or provide services.

#### ***1.04 Professionals attend to the well-being of their clients.***

Comment: Professionals attempt to promote the welfare of their clients in their work. Professionals plan and conduct instructional programs and other activities with the client's best interests in mind. Professionals monitor the effect of instructional programs on the client and modify the programming as necessary to best address the client's learning, needs, interests, and abilities. Professionals assist clients, or potential clients, in obtaining alternative services if the organization or program cannot provide the services the client needs or wants.

#### ***1.05 Professionals maintain appropriate relationships with employees and clients.***

Comment: Professionals are aware of their power and influence with respect to employees and clients, and avoid taking advantage of or exploiting this power and influence in ways that exploit or harm the employee or client. Professionals endeavor to promote trust and respect of such persons. Professionals avoid relationships with employees or clients that could impair their professional judgment, cause harm, or are inappropriate. Examples of such relationships include, but may not be limited to: business relationships that do not benefit the employee or client; inappropriate physical contact; inappropriate intimate and/or sexual relationships; or any relationship used to further the interests of the professional to the detriment of the employee or client.

#### ***1.06 Professionals inform their clients of reasonably foreseeable inherent risks associated with their products or services.***

Professionals proactively discuss the nature of their products or services with their clients, the requirements for purchase or participation, and the consequences for not meeting these requirements. Professionals discuss the reasonably foreseeable hazards and risks associated with their products or services with the client prior to participation. Professionals discuss their role and obligations as a professional with the client. Professionals also discuss the responsibilities and obligations of the client required for participation. Professionals endeavor to communicate this information clearly and promptly in order to enable the client to make informed-decisions regarding purchase or participation.

***1.07 Professionals fairly and accurately represent themselves, their products and services to the public.***

Comment: Professionals accurately describe and represent their education, qualifications, experience, capabilities, and affiliations (such as membership status in a professional or trade organization) to the public. Professionals to not misrepresent themselves: their membership affiliations, qualifications, licenses, certifications, or other endorsements to the public. Furthermore, professionals do not misrepresent the nature of their products or services, or the nature of competitors' products and services, to the public.



## **Chapter 2: Administration and Business Practices**

### ***2.01 The organization makes reasonable efforts to comply with all applicable federal, state or provincial, and local laws, rules and regulations regarding the operation of the climbing facility.***

Comment: Organizations should exercise due diligence in operating the climbing facility in compliance with all applicable federal, state or provincial, and county or local laws and regulations. These include but are not limited to: occupational safety and health laws and regulations; The Americans with Disabilities Act; federal, state, and provincial labor laws; bonding laws; insurance laws and regulations; and business licensing laws.

### ***2.02 The organization maintains current and orderly business records including client information, copies of all participant agreements, and records of client belay and climbing proficiency tests.***

Comment: A record keeping system recording general client information provides verification that a climber has completed a participant agreement, has completed any necessary training or assessment, and can indicate the climber's level of access to the climbing facility. Information collected may include, but is not limited to: the client's name, address, telephone number, email address, climbing experience, level of qualification at the facility, emergency contact, etc.

The record keeping system should record and provide a means to check the status of the results of the clients' belay and climbing tests for both top rope and lead climbing. At a minimum the record should include the client's name, the tester's name, the date of the test, a listing of the tests passed, and the expiration date of the test (if any).

It is important that required business records are kept current, up-to-date, secure, and are easily accessible. Orderly business records are important in the event of an accident, injury, insurance or legal claim, or audit. Some records may be kept off-site in case of damage to the facility through fire, vandalism, flood, theft, etc. The climbing wall operator should have an adequate records retention policy in place and should follow that policy consistently.

### ***2.03 The organization maintains adequate types and amounts of insurance coverage or is adequately self-insured.***

Comment: Insurance coverage should cover the organization's routine operations. Organizations should review the details of their insurance coverage annually with their legal counsel or insurance professional to ensure that all routine operations are covered, for example: competitions, outdoor instruction, or special events. Types of required or desired coverage might include: commercial general liability, professional liability, product liability, workers' compensation, health insurance, auto, etc. Organizations should also understand the exclusions in the insurance contract or contracts and the carriers' requirements for settlement of claims. In some cases, you may be required by law to carry a certain minimum amount of commercial general liability insurance coverage or evidence of adequate self-insurance. Climbing wall operators should consult with their legal counsel and/or insurance professional regarding adequate insurance coverage for their operations.

### ***2.04 The organization has a written manual or manuals that contain necessary operating policies, procedures, and/or practices.***

Comment: The purpose of the operations manual is to record and communicate the organization's essential or required policies, procedures, and operating practices. The operations manual may address matters related to the health and safety of employees and clients, the requirements of original equipment manufacturers, the owner's requirements for the operation of the facility, consistency of practice within the facility, emergency procedures, reporting requirements, and any other essential requirements. The operations manual should be kept current, should be reviewed regularly, and should be readily accessible to employees. The operations manual can contain a disclaimer that includes language stating that all policies, procedures or practices currently in place are subject to change by management at any time. Climbing wall operators should consult with their legal counsel and other experts in developing an operations manual, in crafting appropriate disclaimers, and in maintaining compliance with any applicable laws, regulations, rules or other requirements.

### ***2.05 The organization has an adequate emergency response plan in place.***

Comment: The organization maintains policies, procedures or protocols in order to promptly respond to accidents, injuries, illnesses and other emergencies. The staff must be trained in carrying out these policies, procedures, or protocols. The organization should develop its emergency plan in consultation with experts in

emergency management, first aid, rescue, media or public relations, legal counsel and other experts as necessary. The plan should be reviewed periodically and should be kept up-to-date. Written emergency protocols, procedures, or practices should be maintained on the premises.

The organization has at least one person on duty with current CPR and first aid training, including training in standard precautions for body substance isolation, when any climbing or maintenance is occurring. Employees who are required to respond to medical emergencies are encouraged to obtain and maintain proper vaccinations that can provide protection from blood borne pathogens (for example, hepatitis B vaccine). An example of sufficient first aid training would be American Red Cross Standard First Aid with CPR. This course is a 5-½ to 6-½ hour workplace training course covering knowledge and skills necessary to prevent, recognize, and provide basic care for injuries and sudden illnesses until professional rescuers or advanced medical personnel arrive and take over care. The course covers first aid, adult and child CPR, and the use of an automated external defibrillator (AED) as an optional course component. AED devices and training may now be required in some jurisdictions.

If the organization's policy permits staff to perform technical rescues on the climbing structure, the organization has at least one person on duty capable of rescuing a stranded or stuck climber. Employees who are required to respond as technical rescuers must have received rescue training and must have adequate and appropriate rescue equipment available.

## ***2.06 The organization maintains a system of incident/accident reporting and maintains records of all accident reports.***

Comment: An incident for the purpose of this practice is defined as any unplanned for, unintended, dangerous or potentially dangerous occurrence or condition that results in injury, illness, property damage, near miss, or other loss. The organization has a system of collecting incident data, which is reviewed by the owner/operator periodically to review performance, identify any trends, to proactively manage risks, and to make changes in policies, procedures and practices as necessary. The incident reporting system is sufficient to meet the requirements of the organizations insurance carrier. Many insurance carriers will provide accident-reporting forms to policyholders. Written accident or incident reports should be limited to reporting factual information and should avoid conjecture, supposition, and other similar types of statements. Management should consult with their legal counsel and insurance provider to review and coordinate any accident reporting system, requirements, forms and related risk management policies.



## **Chapter 3: Human Resource Management**

### ***3.01. The organization has adequate written employment policies for staff, communicates these employment policies to staff, and practices these policies consistently.***

Comment: The development of employment policies is a critical aspect of any business that should be done in conjunction with qualified human resources professionals and/or legal counsel specializing in employment law. Employment policies should reflect the skills needed for each position, and a job description for each position. Certain positions, such as route setting and technical climbing instruction require specific climbing skills and experience. Managers may consider requiring a climbing resume and contacting references for all potential staff.

### ***3.02 The organization has adequate written position descriptions, including minimum qualifications, for staff and volunteers.***

Comment: Position descriptions should address essential job responsibilities and typical duties. A position job description should clearly outline the minimum qualifications and the performance expectations for staff and/or volunteers. Qualifications or requirements may address: age, education, training, prior experience, and skills necessary to perform in the position.

### ***3.03 The organization has an adequate screening system in place for staff and volunteers.***

Comment: The organization takes reasonable steps to screen employee and volunteer candidates prior to selection. Screening may include: written applications, interviews, reference checks, driving record check, criminal record check, etc.

### ***3.04 The organization has an adequate program in place for training staff in the performance of their jobs.***

Comment: Staff training should focus on the specific responsibilities, duties, skills, and expectations of the position. The training program may include reading the operation's manual, reading instructional curricula, on-the-job training,

apprenticeship periods, supervised practice, attending training meetings/seminars, role-playing or any combination. The employees that teach lessons/classes to customers should be trained in instruction and possess appropriate experience and skills to teach the assigned classes. The training program should include all relevant areas of a facility's operations, both risk management and otherwise.

### ***3.05 The organization maintains adequate documentation of staff training.***

Comment: Documentation of training should include the topic(s) of the training, the date of the training, the name of the trainer, and the name(s) of the trainee(s). Documentation of staff training can be important to demonstrate the level and consistency of employee training in the event of an accident or legal claim.

### ***3.06 The organization has an adequate employee performance evaluation system in place and uses that system consistently.***

Comment: Regular employee performance feedback can assist in improving employee performance and maintaining consistent application of operating practices. Striving for consistent operating practices assists the facility in maintaining responsible risk management practices and may help to minimize potential customer and staff injuries. The program's frequency and structure may vary due to seasonal or part time employees. (For example, some employees may work only during summer months and may not be available for a typical six-month review). The system should be designed to accommodate all employees, i.e. seasonal, part-time, etc., and independent contractors.

### ***3.07. The organization maintains adequate employee records.***

Comment: Employee records or a personnel file may include: employment eligibility verification, letter of application, resume, application for employment, work history, letters of reference or reference contact information, copies of current first aid and CPR certifications (including expiration dates), a summary or listing of completed training, results of screening checks, etc.

### ***3.08 The organization has an adequate workplace safety program in place.***

Comment: Workplace safety is an important management responsibility in the climbing industry where employees are exposed to many inherent risks and potential hazards. The organization takes reasonable and cost effective steps to implement a program that informs employees of workplace safety issues, trains employees in essential workplace safety matters, and attempts to prevent work-related injuries, illnesses, and deaths. The organization develops appropriate policies, procedures, practices, or guidelines pertaining to workplace safety and health. Examples of risks and hazards the program might address include but are not limited to: falls from height, mechanical hazards, exposure to toxic or hazardous chemicals, exposure to blood-borne pathogens, unsanitary conditions, and other workplace-related threats to health and safety.



## **Chapter 4: Client Orientation, Training, and Assessment**

### ***4.01 The staff has a system for registering both new and existing clients.***

Comment: Clients should register or check in prior to climbing. The climber's level of qualification or access to the climbing facility should be checked upon entering or prior to climbing in the facility. Clients that have not demonstrated proficiency in required climbing or belaying skills; must be supervised by staff or a qualified climbing partner, or their access to the facility must be limited accordingly. Facilities may choose to have membership cards, a sign-in sheet, a verbal check-in, or a database.

### ***4.02 The staff employs a screening process for new clients before allowing access to the climbing facility.***

Comment: The screening process will assist the staff in determining the new client's ability to climb in the facility; to assess the client's prior climbing experience, knowledge, and skills (if any); to inform the client of the nature of the sport of climbing; and to introduce the facility's rules for access and participation. Customer screening may include questions that will provide a sound basis for the decision to allow access and to make an appropriate decisions regarding orientation, training, and testing such as:

- Climber's age, height and weight;
- Years of climbing experience;
- Climbing experience in a climbing facility;
- How often and how recently has the client climbed;
- Level of climbing competency (using the Yosemite Decimal System or bouldering scale);
- Type of climbing experience (sport climbing, traditional climbing, mountaineering, bouldering);
- Proficiency in top rope climbing and belaying;
- Proficiency in lead climbing and belaying;
- Pertinent medical or health history.

It is the client's responsibility to notify the staff of any pre-existing medical condition or health history that may negatively affect the client's (or any other persons) health and safety if the client climbs.

Under certain circumstances, it may be prudent to advise a new client or potential client to consult with their health care provider prior to climbing. Climbing and related activities are strenuous and potentially stressful for new climbers and may put unaccustomed demands on the body and cardiovascular system. Clients may want to seek medical advice prior to participation in climbing sports if they have any medical condition that may adversely affect their health or ability to adequately perform activities such as belaying or spotting. The facility may encourage seeking medical advice by posting signage in the climbing gym, incorporating appropriate language in a participation agreement, using a separate health history questionnaire, or requiring the gym staff to provide a verbal warning upon check-in. Furthermore, participants might also be advised that if their health or medical conditions change, it may be advisable to consult their physician again.

Staff should be sensitive to information received from customers during the screening process and in making decisions based on the screening process. If any health information is collected, it is handled confidentially and secured.

***4.03 The staff informs the client about the inherent risks of climbing in a climbing facility, and the client agrees to acknowledge, accept, and assume those risks in a written document prior to gaining access to the climbing facility.***

Comment: It is important that clients are informed of the nature of climbing and the inherent risks of climbing in a climbing facility during their initial orientation and at other appropriate times. Clients must be willing to acknowledge, accept, and assume the reasonably foreseeable risks inherent in a climbing wall environment before they are allowed to climb. It should be made clear that this document is not intended to include or provide a description of all risks and hazards associated with climbing in a climbing facility. Written participation agreements may take many different forms, and may be included within a legal document containing other types of information (for example, a release of liability, a waiver of claims, an agreement to indemnify or defend, or other information).

***4.04 If the organization chooses to reallocate or release its liability for clients' injuries or losses, it does so through a written agreement.***

Comment: Agreements or documents that attempt to shift, reallocate, or release an organization from liability may take different forms. Written agreements or documents may take the form of a multi-part document that may contain other agreements or types of information (for example, a participation agreement, see

comment for 4.04 above). The agreement should be developed or approved by your legal counsel, reviewed for enforceability in your jurisdiction, and revised as necessary. Please note that statutes, regulations, case law, and other factors may affect the efficacy of these types of agreements, it is imperative that these agreements are properly drafted and reviewed periodically.

***4.05 The staff reviews the facility rules with new clients and clients agree to follow the rules prior to granting access to the climbing facility.***

Comment: Clients shall be instructed and must agree to follow the facility rules. Clients should be shown where rules are posted in the facility. Clients should be instructed to obey all rules, instructions, oral and written warnings in the facility. Clients should be informed that compliance with rules, instructions, or warnings does not guarantee safety.

***4.06 The staff provides an orientation to the climbing facility and to the belay systems in use at the facility.***

Comment: The staff provides an orientation to the facility, or to the portions of the facility the client will have access to, that provides the client with general information about the climbing areas, the types of climbing allowed in various areas (bouldering, top-rope, lead, auto-belay devices, etc.), or where climbing is not allowed. If the facility employs auto belay devices, the client is provided an orientation to their proper functioning and use.

***4.07 The staff provides instruction for novice climbers appropriate to the program being offered and the belay systems and equipment in use at the facility.***

Comment: The staff provides instruction for novice climbers appropriate to the climbers' level of access to the facility, the objectives of the course or program they are participating in, the level of supervision provided, the skills the climbers are expected to perform, etc. For example, if the climber is participating in a supervised program and will not be expected to perform a belay for another climber; then belay training and assessment would not be necessary.

**4.08 The staff administers a top rope belaying and climbing test that each belayer must pass before being allowed to belay or climb without assistance or direct supervision. The belay test is appropriate for the belay system employed at the facility.**

Comment: The top rope belay test should assess all of the skills necessary to perform a proper belay using the belay system or systems employed at the facility. The test should address proper use of all climbing equipment according to the manufacturers' instructions, proper set up of the belay system on the harness, the use of an appropriate knot to tie into the rope (or the correct use of locking carabiner(s) to clip into the rope, if that is permitted), proper checking of the climbing partner's equipment, proper commands between the climber and belayer, proper use of the belay device, the ability to catch a fall, and the ability to lower the climber to the ground.

Regardless of the belay system in use, the essential criteria for effective belays include:

- a. proper configuration and use of the belay device according to manufacturer's instructions;
- b. ability to properly feed rope through the device;
- c. maintaining a brake hand on the rope **at all times**;
- d. ability to brake **at all times**;
- e. ability to demonstrate an appropriate behavioral reaction to a fall (i.e. the belayer must reflexively react to brake a fall -- even if surprised, stressed, fearful, etc.)

Please see Annex A – Sample Top-Rope Belaying and Climbing Test Procedure.

**4.09 The staff administers a lead belay/climbing test that each belayer must pass, before being allowed to belay a leader or lead climb without assistance or direct supervision.**

Comment: The lead belay test should assess all of the skills required to perform a proper belay for a lead climber. The test will incorporate some material from the top rope test plus additional skills. The test should address proper use of all climbing equipment according to the manufacturers' instructions, proper set up of the belay system on the harness, the use of an appropriate knot to tie into the rope, proper checking of the climbing partner's equipment, proper commands between the climber and belayer, proper use of the belay device, proper feeding of rope to the climber, proper belayer positioning, the ability to catch a fall, the ability to recognize and avoid back clips and z clips, and the ability to lower the climber to the ground. Please see Annex B – Sample Lead Belaying and Climbing Test Procedure.

***4.10 If the facility employs auto belay devices, the staff administers an auto belay device orientation and proficiency test for each climber before being allowed to use the auto-belay device without assistance or direct supervision.***

Comment: A climber may use the auto belay device without training or qualification if directly supervised by a qualified staff member or assisted by a qualified person. Otherwise, climbers must be trained in the proper use of an auto belay device prior to first use without direct supervision. Climbers should have an understanding of the normal functioning and mode of operation of the auto belay device. Climbers should be instructed to report any potentially unsafe condition or unauthorized use of the device such as slack in the rope or lanyard, improper retraction of the rope or lanyard, uncharacteristic noises coming from the device, climbers not clipped in properly or not clipped in at all, etc. The manual or operating instructions should be readily accessible and made available to the climber upon request. Please see Informative Annex C – Sample Auto Belay Device Orientation and Test Procedure for more information.

***4.11 If the facility allows bouldering, the staff provides an orientation to bouldering before novice climbers are allowed to boulder without assistance or direct supervision.***

Comment: Bouldering is climbing that does not involve the use of a rope, harness or belay device. The client is informed of the inherent risks of bouldering, the intended function and limitations of impact attenuating surfaces or padding, the maximum height of bouldering in the facility, and where in the facility bouldering is allowed. The staff reviews the rules for bouldering in the facility, which should be prominently posted in an appropriate area.



## **Chapter 5: Personal Protective Equipment**

***5.01 All personal protective equipment should be used in accordance with the original equipment manufacturer's instructions.***

***5.02 The organization maintains an inspection and maintenance program appropriate for the facility-owned personal protective equipment in use.***

Comment: The facility conducts regular visual inspections of all facility-owned equipment. The facility conducts visual inspection of rental equipment as it is distributed. As part of the inspection and maintenance program, the staff performs ongoing and regular visual and close inspections of facility-owned ropes. All facility-owned personal protective equipment should meet manufacturer's requirements, be subjected to periodic visual and close inspections, and be used in accordance with the manufacturer's instructions. Please see Informative Annex D for more information.

***5.03 The organization maintains appropriate quality assurance records for the facility-owned climbing equipment in use.***

Comment: The organization maintains copies of the manufacturer's published material such as product information that accompanies facility owned climbing equipment. The organization maintains quality assurance records such as inspection, maintenance, or repair records or logs deemed appropriate by the manufacturer and owner/operator for all facility-owned equipment. Climbing equipment records and logs should be readily accessible at the facility or easily retrievable.

***5.04 The organization maintains a policy regarding the use of personal climbing equipment and practices the policy consistently. All personal equipment used must be manufactured specifically for climbing use and used in accordance with manufacturer's instructions.***

Comment: This practice applies to the use of any personal climbing equipment used in the facility, including but not limited to ropes, harnesses, belay devices, carabiners, quick-draws, etc. Personal equipment used, including harnesses, must be manufactured specifically for climbing use. For example, hand tied "swami belts" are not adequate or appropriate in a climbing facility. All equipment used in the facility must meet the requirements of and be used in accordance with manufacturer instructions. Personal equipment is not subject to regular and ongoing inspection by the facility staff; therefore, the client must acknowledge, assume, and accept all responsibility for the proper selection, use, care, maintenance, inspection, and storage of personal climbing equipment. Consult your legal counsel regarding policies pertaining to use of personal climbing equipment, and design specific language that can be included in your participant agreement to address these issues.

## **Chapter 6: Climbing and Facility Operations**

### ***6.01 The staff controls access to the climbing facility or the climbing wall.***

Comment: Access to the facility or the climbing wall should be controlled to prevent unauthorized use. Access can be controlled in a number of ways, with the most common being the presence of a “front desk” area at the facility’s entrance. Access may also be limited by segregating the climbing area, installing barriers or boundary lines, posting appropriate signage, removing holds, or whatever means the owner/operator deems appropriate for the facility.

### ***6.02 The organization prominently posts its rules in the facility.***

Comment: The facility prominently posts its rules in a visible location or locations for all to read. Posted rules should be kept up to date. Rules relating to specific types of climbing, such as top rope climbing, lead climbing, and bouldering may also be posted in appropriate areas in the facility. The facility may consider including language in the posted rules or warnings that informs customers that compliance with the rules does not guarantee a customer’s safety. Any attempts to formally disclaim liability in signage should be discussed with an operator’s legal counsel, and developed consistent with applicable law. Please see Informative Annex E for more information (ClimbSmart).

### ***6.03 The organization maintains an adequate supervisory plan for the climbing facility during the hours of operation.***

Comment: The staff members actively supervise the facility while it is in operation. An appropriate number of qualified staff members are present to monitor access to the facility, monitor the activity within the facility, to supervise instructional programs, and to respond to emergencies. The organization establishes appropriate employee to client ratios for instructional and supervised programs. Programs or client populations that pose greater potential risks should possess a higher ratio of employees to clients. For example, appropriate instructional or supervisory ratios will depend upon the age, skill, and experience of the staff, the material being taught, the age and maturity of the clients, the length of instruction, and other factors. If parents, guardians, or clients are incorporated into the supervisory plan for the program, the parents, guardians, or clients must be trained in and reasonably capable of performing the duties entrusted to them.

***6.04 The organization maintains an instructional program appropriate for the artificial climbing structure, types of climbing permitted, and equipment in use at the facility.***

Comment: The instructional program or classes typically instruct students in the fundamentals of climbing safety, technical proficiency, and technique. Written lesson plans help to identify goals so staff and clients are clear about what will be taught, how it will be taught, and what the intended outcomes are in any given class. In addition, a lesson plan can specify the criteria used to evaluate customers who are prepared to belay or climb without supervision.

***6.05 The organization maintains an inspection and maintenance program appropriate for the artificial climbing structure or structures in use.***

Comment: Manufacturers of artificial climbing structures can provide facility owners/operators information regarding instructions for the scheduling, periodic inspection, periodic maintenance, and, if and where appropriate, instructions for repair of structures, structural components, and/or equipment. The organization's program should only address matters that the owner/operator is reasonably capable and competent to perform. If the owner/operator performs repairs or maintenance on the structure, only replacement parts specified or approved by the manufacturer are used. In some cases, inspections, maintenance, and repair by the manufacturer, or a qualified third party inspector, may be necessary and a written inspection report provided. The owner/operator should report serious malfunctions or failures of structures, structural components, or equipment promptly to the manufacturer and/or the installing vendor.

***6.06 The organization maintains appropriate design documents, quality assurance records, and maintenance and repair logs for the climbing structure or structures in use.***

Comment: The organization maintains the design plans, manufacturer's manual (if any), manufacturer technical notices, quality assurance records or inspection or maintenance logs deemed appropriate by the manufacturer and owner/operator. Records of reconfigurations or modifications of climbing structures should also be maintained. Records and logs for structures and equipment should be readily accessible at the facility or easily retrievable.

***6.07 The organization uses the artificial climbing structure and its protection anchors in accordance with the artificial climbing wall manufacturer's instructions.***

Comment: The organization uses the protection anchors and ground anchors on the climbing structure consistent with the artificial climbing wall manufacturer's instructions. Artificial climbing structures are designed and engineered to work properly with generally accepted climbing equipment and practices. The use of equipment or practices not specified or approved for use by the wall manufacturer can lead to forces being generated that are greater than the structure was designed to withstand or the human body can tolerate. For example, many artificial climbing structures are designed and built to utilize climbing ropes that meet UIAA 101 "Dynamic Ropes" or CE EN 892 "Dynamic Mountaineering Ropes – Safety Requirements and Test Methods", ropes that do not meet one of these standards should not be used unless specified or approved by the manufacturer. Furthermore, floor anchors may not be designed to withstand the loads of a top rope or lead anchor. A floor anchor should not be used as a protection anchor unless specified or approved by the manufacturer. The owner/operator of an artificial climbing structure should not utilize the structure or its protection anchors in ways that do not meet the wall manufacturer's specifications, instructions, or recommendations.

***6.08 The organization has adequate and appropriate emergency equipment at the facility.***

Comment: The organization maintains a first aid kit on the premises with dressings and bandages to stop bleeding, a barrier mask for rescue breathing, and gloves to prevent the spread of infectious disease. If the organizations' policy permits employees to perform a technical rescue, adequate and appropriate rescue equipment is on the premises. Examples of rescue equipment might include the equipment necessary to perform a rescue from a ladder or a simple snatch rescue.

***6.09 The facility has a policy (or policies) for belaying and climbing and administers the policy consistently.***

Comment: The policy for belay testing may include language regarding the client's age, climbing knowledge, prior experience, climbing skill, level of climbing ability, training prerequisites, other required tests, training, or orientation, etc. The purpose of the climbing/belaying policy is to establish minimum expectations for who may take the top rope test, the lead test, and any other required tests and under what circumstances. The facility may want to state the minimum acceptable grade for the test route (for example, "the lead test will be given on a route of 5.8 difficulty or

greater”). The facility may also want to adopt language regarding who may or may not furnish ropes used for lead climbing. Clients taking the test understand they are responsible for one another’s safety as well as the safety of other climbers in the immediate area. If a client fails the belay test, facilities may consider adopting language addressing when the individual is allowed to take the test again, how often, and under what circumstances. The policy may require the individual to wait for a period of time before the next test, or take a class from a qualified instructor prior to taking the test again.

***6.10 The organization has a reasonable policy regarding a minimum age limit for climbing and belaying without direct adult supervision.***

Comment: Children in late childhood begin to develop the ability to reason hypothetically and systematically and perform more complex problem solving tasks between the ages of approximately 11 and 15 years of age. Children that are too young, not sufficiently developed to reason abstractly, not able to follow relatively complex instructions, not able to reproduce those instructions consistently, not able to generalize from specific examples, or not able to understand the consequences of their actions or inactions, should not be climbing or performing tasks such as belaying without direct adult supervision.

There has been no consensus in the climbing industry regarding a minimum age limit for climbers and young children who may climb with adult supervision. However, many climbing wall operators in the industry do establish a minimum age for belaying (restrictions allowing belaying only for those over the ages of 12 to 14 are most common). This limit relates to the climber’s ability to have and retain proficiency in the use of technical climbing equipment, and the ratio of belayer weight/strength to climber weight, and other factors. These factors justify establishing a minimum age for climbing and belaying without direct adult supervision.

***6.11 The organization has a policy regarding the maximum height of bouldering or un-roped climbing in the facility.***

Comment: Please see informative Annex E Bouldering for more information.

***6.12 The facility has installed an impact attenuation system (landing surface) in the fall zones below all climbing structures.***

Comment: There are many types of landing surfaces used in the climbing wall industry including, but not limited to, poured in place composites, shredded rubber, pea gravel, open cell foam, closed cell foam, gymnastic mats, and portable landing cushions. Climbing wall operators should review the systems currently available on the market and in use in the industry and the configuration of their facility in selecting a system and for determining the appropriate areas in which to apply the system. An appropriate landing surface does not guarantee the prevention of injuries resulting from falls.

***6.13 The facility has a route-setting program in place.***

Comment: The following are suggested route-setting considerations and guidelines: employing the services of an experienced route setter to train facility staff and to provide overall risk management of route setting within the facility. Setters should avoid setting routes that introduce unnecessary hazards such as pendulum swings or falls, unsafe clips, or unsafe handholds. Customers should be cautioned as to where routes are being set and access to those areas should be restricted during route setting activities. Establish a route rating system and frequency for changing routes. Establish inspection frequency for spinning or cracked holds, and other hazards such as ropes running over handholds.



## Annex A – Informative

### Sample Top-Rope Belaying and Climbing Test Procedure

The following steps are suggested as a belay test procedure to evaluate a climber fully qualified to climb and provide a top rope belay in a climbing facility. Climbers that cannot pass this test procedure would not be considered to be fully proficient in traditional top rope belaying skills, but may be allowed to climb in the facility depending upon the belay systems in use, the level of supervision, and other factors.

1. Qualified staff administers the test.
2. The climber is informed of the facility's protocols related to belaying and roped climbing.
3. Staff informs the belayer and climber of the purpose and expectations of the belay/climbing test and gives a brief description of the test components.
4. The belayer and climber put on the climbing harnesses in accordance with manufacturer's instructions.
5. The belay device, locking carabiner, and rope are given to the belayer as separate pieces. (This may not be necessary if the test is given on a permanently installed, pre-rigged, fixed-in-place belay system).
6. The belayer demonstrates proper set up of the belay system on the harness.
  - a. The carabiner used to attach the belay device to the harness is attached according to the harness manufacturer's instructions.
  - b. The carabiner is checked to ensure it is locked.
  - c. The rope is threaded through the belay device correctly.
  - d. The threaded belay device is attached to the harness using the locking carabiner and the gate is locked.
7. The climber ties in using an appropriate knot (for example, a retraced or re woven figure eight knot with a sufficient amount of tail).
  - a. If the climber is permitted to clip into the rope using locking carabiner(s), the climber checks the carabiner ensure it is locked and not cross loaded.
8. The climbing rope is correctly attached to the harness in accordance with manufacturer's instructions.
9. The belayer and climber demonstrate proper use of verbal belay commands (e.g. "on belay", "belay on", "climbing", "climb on", "up rope", "slack", "tension", "take", "that's me", "got you", "lower me", "lowering", "off belay", "belay off", etc.)
10. The climbing partners check their own and one another's equipment, including the belay set up, prior to beginning the climb.
11. The belayer demonstrates proficient belay technique. Criteria for effective belay technique (all criteria **must** be met);
  - a. proper configuration and use of the belay device according to manufacturer's instructions;
  - b. ability to properly feed rope through the device;

- c. maintaining a brake hand on the rope **at all times**;
  - d. ability to brake **at all times**;
  - e. ability to demonstrate an appropriate behavioral reaction to a fall (i.e. the belayer must reflexively react to brake a fall -- even if surprised, stressed, fearful, etc.)
12. The belayer demonstrates prompt responses to climber actions or commands.
  13. The belayer demonstrates proper position relative to the climber and the wall, avoiding the climber's fall line.
  14. The belayer demonstrates how to catch a simulated or actual fall in a controlled manner during the demonstration of belay technique. If catching an actual fall, staff is to provide a top-rope back up or a back up brake hand on the rope during the test.
  15. The belayer demonstrates controlled lowering of the climber to the ground.
  16. If there is a pair of climbers being tested, each climber individually demonstrates all the requisite skills.

## Annex B – Informative

### Sample Lead Belaying and Climbing Test Procedure

The following steps are suggested as a belay test procedure to evaluate a lead climber or lead belayer in a climbing facility. Climbers that cannot pass this test should not be allowed to lead climb or belay a leader in the facility.

1. Qualified staff administers the test.
2. The climber is informed of the facility's protocols related to lead belaying and lead climbing.
3. Staff informs the climber of the purpose and expectations of the lead belay/climbing test and gives a brief description of the test components.
4. The belayer and climber put on climbing harnesses in accordance with manufacturer's instructions.
5. The belay device, locking carabiner, and rope are given to the belayer as separate pieces.
6. The belayer demonstrates proper set up of the belay system on the harness.
  - a. The carabiner used to attach the belay device to the harness is attached according to the harness manufacturer's instructions.
  - b. The carabiner is checked to ensure it is locked.
  - c. The rope is threaded through the belay device correctly.
  - d. The threaded belay device is attached to the harness using the locking carabiner and the gate is locked.
7. The climber ties in using an appropriate knot (for example, a retraced or rewoven figure eight knot with a sufficient amount of tail).
8. The climbing rope is correctly attached to the harness in accordance with manufacturer's instructions.
9. The belayer demonstrates proper rope management skills such as stacking the rope properly, avoiding entanglement, avoiding straddling of the rope, avoiding standing on the rope, etc.
10. The belayer and climber demonstrate proper use of verbal belay commands (e.g. "on belay", "belay on", "climbing", "climb on", "up rope", "slack", "tension", "take", "that's me", "got you", "lower me", "lowering", "off belay", "belay off", etc.)
11. The climbing partners check their own and one another's equipment, including the belay set up, prior to beginning the climb.
12. The belayer demonstrates proficient belay technique for lead belaying, both taking in and paying out rope for the leader as needed without introducing excessive slack in the rope. Criteria for effective belay technique (all criteria **must** be met);
  - a. proper configuration and use of the belay device according to manufacturer's instructions;
  - b. ability to properly feed rope through the device;
  - c. maintaining a brake hand on the rope **at all times**;

- d. ability to brake **at all times**;
  - e. ability to demonstrate an appropriate behavioral reaction to fall (i.e. the belayer must reflexively react to brake a fall -- even if surprised, stressed, fearful, etc.)
13. The belayer demonstrates prompt responses to climber actions or commands.
  14. The belayer demonstrates proper position relative to the climber and the wall, avoiding the climber's fall line.
  15. The belayer demonstrates a proper take of the leader at some point on the route.
  16. The belayer and climber demonstrate the ability to recognize, describe and avoid a back clip or z clip.
  17. The climber demonstrates proper clipping of the rope into each protection anchor without skipping clips.
  18. The climber chooses appropriate holds from which to clip the rope in order to maintain a secure stance while clipping.
  19. The climber demonstrates proper body position in relation to the rope (e.g. does not let the rope run behind the leg).
  20. The belayer demonstrates how to catch a simulated or actual fall in a controlled manner during the demonstration of lead belay technique. If catching an actual fall, staff is to provide a top-rope back up or a back up brake hand on the rope during the test.
  21. The climber demonstrates clipping into the top anchor(s) correctly.
  22. The belayer demonstrates controlled lowering of the climber to the ground.
  23. If there is a pair of climbers being tested, each climber individually demonstrates all the requisite skills.

## Annex C – Informative

### Sample Auto Belay Device Orientation and Test Procedure

The following steps are suggested as an orientation procedure to an auto belay device for climbers using an auto belay device without assistance or direct supervision.

1. The climber is informed of the inherent risks of using an auto belay device.
2. The climber is instructed in the correct functioning and proper use of the auto belay device.
3. The climber is instructed in the limitations of use of the auto belay device, for example:
  - a. use by one person at a time,
  - b. weight or loading limitations,
  - c. climbing on route,
  - d. not climbing above the auto belay device,
  - e. not climbing in the path of another climber
  - f. avoiding a pendulum or swinging fall;
  - g. not releasing the line from the ground anchor or attachment point;
  - h. avoiding entanglement of the lanyard or rope with the wall or the climber;
  - i. not redirecting the lanyard or rope through protection points on the wall or interfering with the free running of the lanyard or rope;
  - j. keeping the landing area clear of obstructions and climbers;
  - k. etc.
4. The climber is instructed to properly fit and secure the climbing harness.
5. The climber is instructed to check for the proper operation of the auto belay device prior to clipping in.
6. The climber is instructed to properly attach the carabiner or snap hook to the climbing harness in accordance with the harness manufacturer's instructions.
7. The climber is instructed to double check the attachment of the carabiner or snap hook to the harness by depressing the gate to ensure it is closed and locked.
8. The climber is instructed how to ascend and descend using the auto belay device.
9. The climber is instructed to report any potentially unsafe condition or use of the auto belay device to the staff.

#### Sample Test Procedure

1. The climber properly fits and secures the climbing harness.
2. The climber checks for the proper operation of the auto belay device prior to clipping in.

3. The climber properly attaches the carabiner or snap hook to the climbing harness in accordance with the harness manufacturer's instructions.
4. The climber double checks the attachment of the carabiner or snap hook to the harness by depressing the gate to ensure it is closed and locked.
5. The climber ascends and descends using the auto belay device.
6. The climber is aware of the limitations of use of the auto belay device as stated above.

## **Annex D – Informative**

### **Inspection Criteria for Facility-Owned Equipment**

Periodic visual and close inspection of facility-owned personal protective equipment should be conducted by a person competent to inspect the equipment. A close inspection is considered to be a “hands on” inspection.

Equipment should be retired and replaced at the end of its operational lifetime which is determined after consideration of combination of factors, including but not limited to:

1. the age of the equipment,
2. length of time in storage,
3. length of time in use,
4. amount of use,
5. type of use,
6. deterioration from use, and
7. the overall condition and functioning of the equipment.

Equipment should be, stored, maintained, inspected, repaired (if appropriate), retired and replaced as per the manufacturer’s instructions.

Equipment that is excessively worn or damaged and is not in proper working order must be repaired (if appropriate) or retired. Equipment that is obsolete or recalled must be retired. Retired equipment should be disposed of so it cannot be used inadvertently.

In some cases repair of equipment is not possible or advisable. Consult the manufacturer’s instructions or recommendations regarding equipment repair.

Inspection, maintenance, and repair activities should be recorded in appropriate quality assurance records or logs.



## **Annex E – Informative**

### **Bouldering and Impact Attenuating Surfaces**

The overwhelming majority of climbing facilities the CWA has surveyed have an impact attenuating surface (padding) installed in their facility. It is clear that the installation of padding in a climbing facility is an industry practice. However, the type of material or materials used in the pads, the thickness of the pads, and the height of bouldering can vary significantly from facility to facility. There is little definitive guidance regarding the use of impact attenuating surfaces in climbing in the USA, and given the wide variety of types of surfacing and depth of surfacing in US facilities – the behavior and effectiveness of these systems is unpredictable at best.

It is difficult to address the proper use of pads without defining the risks and hazards the pads are intended to minimize in actual use. In our research, pads are generally designed to minimize or mitigate debilitating injuries only to the head. Head injuries are simply not common in climbing facilities. Pads are not designed to mitigate or limit extremity injuries, although they may do so. We are not aware of any specification for padding designed to mitigate or limit extremity injuries. It is important to be clear with clients that padding is only designed to perform a certain specific function, under certain specific circumstances, and cannot be expected to perform in ways that it was not designed or intended to perform.

Needless to say, there is a relationship between the potential fall height and the depth and/or performance characteristics of the padding in use, but this relationship has not yet been quantified for the purposes of recreational climbing in the US. Nor is it clear that this will be quantified in the near future. As of the date of this edition, to our knowledge, there is no engineering standard in the US for impact attenuating surfaces for artificial climbing structures.

Facilities may have different policies and rules for bouldering and padding given different or unique sets of circumstances. For example, the bouldering height may be determined by the facility's design (for example, the ability to top out on the bouldering structure, the presence of roofs or ceilings within the bouldering structure, etc.) However, it may be prudent to limit the height of un-roped climbing in the facility to a level appropriate for the impact attenuating surface in place and the client population. Our research indicates the average range for the height of bouldering walls in the climbing wall industry is between 12 and 15 feet; however there are facilities with bouldering approaching 20 feet in height.

CLIMBING WALL ASSOCIATION, INC. (CWA)  
CONTACT INFORMATION  
& RESOURCES

The Climbing Wall Association (CWA) has many resources available for climbing equipment and wall, manufacturers, retailers, sales representatives, and climbing facilities. The CWA has an informative consumer information program titled ClimbSmart!® that is designed to promote responsible climbing. The ClimbSmart!® Program is CWA's principle national public awareness campaign addressing risk in climbing sports, climbers' safety, and personal responsibility. Contact CWA or visit <http://climbingwallindustry.org/?page=ClimbSmart> for more information.

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