



RISK ASSESSMENTS

CLIMBING & BOULDERING

ISSUE 1 | OCTOBER 2025

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This risk assessment identifies hazards present at 270 Climbing Park related to roped climbing and bouldering. It assesses potential hazards, who it affects and how. For each risk, control measures have been put in place with the aim to decrease the chance of it occurring as well as the severity of the hazards.

This risk assessment is provided to anyone working as part of the climbing team (internal or external) at 270 Climbing Park.

BOULDERING B1 & B2

Hazard	Who can get hurt	How	Control measures
Environmental Factors			
Cold	Participants	Sports injuries	Induction to advise warming up, a range of grades to allow for slow progression. Infrared heating in non-matted areas.
Frequent temperature change can loosen holds	Participants	Uncontrolled fall	Induction - advise informing a member of staff so it can be corrected. Pinning holds.
Heat	Participants	Greater risk of heat exhaustion	The fire door could be opened to allow better air flow. Water available at centre and near access to climbing areas.
Noise	Participants, supervisors, staff	Noise could distract staff and participants and cause difficulty communicating	Staff to be aware of how these communication difficulties may affect them hearing and being heard by participants and manage accordingly.
Equipment			
Participants wearing harnesses into bouldering areas	Participants	Fall onto metal objects clipped to the harness	Participants advised not to wear harnesses in bouldering areas, signage and floorwalker to spot boulderers wearing harnesses.
Wall Itself			
Monkey bars (Boulder 1)	Participants	Uncontrolled falls	Participants and supervising adult induction - no hanging upside down.

Fire door (Boulder 1)	Participants	Uncontrolled fall toward/out of fire escape. Impact with non-matted area.	Considerate setting. Induction for new users into the area.
Structural beams (Boulder 1) exclusion zone	Participants	Impact with the beam either from standing up into the beam or falling back into beam	Considerate route setting to prevent climbers obtaining full height on that wall e.g. lower finishes to routes.
Change of height of flooring	Participants, Supervisors, Staff	Trip/falls, lower limb injury Lower limb entrapment between mat and mezzanine floor.	Visual inspection of matted areas. Induction to get member of staff if section of the mat lifts. Monitor the recessed mats on the mezzanine for soft spots and dropping away from solid flooring. Matting is different shade from flooring to make the difference more prominent visually.
Unauthorised access to bouldering areas	Public, Bystanders, Participants	A range of injuries including fall from height	Controlled access to bouldering areas through sign in at main desk and restricted through access from group areas.
Structural integrity of the wall	Participants, Staff	Fall from height. Crush injuries from sections of the wall.	Visual pre use inspection included in daily opening procedures. Regular inspection of the wall and surface. Annual inspection from an external company. Wall certified to meet the standards of BS EN:12572: 2017.
Route setting	Participants	Poorly set routes could cause swing or over rotation when falling resulting in a poor landing position. General sports injuries from inappropriate moves. Moves set towards exclusion zones.	Appropriate testing of routes. Ensure holds are placed to limit participant interactions, moves are appropriate to the route difficulty. Briefing participants to route read and consider actions of other participants. General observations from staff.
Spinning holds	Participants	Unexpected/uncontrolled falls	Route setters trained.

		from height.	Routes checked before being opened to the public. Induction includes reporting any spinning holds to staff
Entrapment	Participants	Fingers trapped behind holds, through bolt holes. Potential for finger amputation and degloving.	Routes checked and tested before opening to the public. Setter training to ensure holds are placed correctly and reduce the chance of entrapment.
Participants			
Impact with wall, volumes and holds	Participants	Sports injury	Considerate setting e.g. avoid large holds below screw-on
Hit by a falling climber	Participants, Supervisors, Staff	Broken bones, impact injuries to both climber and participant.	Induction includes information about fall zones. Signage.
Hit by falling objects	Participants, Supervisors, Staff	Impact with falling objects	Participants are instructed not to climb with objects in the pockets. All kit being used at height must be appropriately secured. Exclusion zones for WAH. Trim at top of wall to prevent objects falling from mezzanine level.
Object on the boulder mats	Participants	Injury from falling on the object.	Induction to bouldering. Floor walkers. Lockers for storage of kit. Signage.
Protruding walls	Participants	Running into the walls	General behaviour of the group. Discourage running unless in an instructed group.
Participants grabbing the top of the wall or topping out	Participants	Injury from bolts, screws on the other side of the wall Impact with floor from climbing too high and topping out	Induction to include rules regarding not holding onto the top of the walls and no top out walls present throughout the centre. Signage put up showing these rules.

Participant stuck (nervous to climb/jump down) at the top of the wall	Participants	Uncontrolled falls when tired	Easier route (in comparison) next to harder routes to allow for down climb options and down climb jugs for riskier movements. Instructor encourages participant to slowly build confidence on the wall.
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INSTRUCTED SESSIONS

Hazard	Who can get hurt	How	Control measures
Poor/inadequate supervision of participants by staff	Participants, Bystanders	Participants poor behaviour while waiting their turn, resulting in injury	Supervision ratios - less experienced staff may only be able to manage smaller numbers of participants than experienced members of staff. Ratios should factor in needs of the group including what level/skills they are being taught and the learning needs of the group. Induct staff appropriately. Only deploy staff that are suitably experienced and competent for the task that is expected of them. External instructors must be inducted into all areas and must hold a Mountain Training award.
Ongoing staff competency	Participants	Staff teaching inappropriate progressions. Staff not understanding what they are teaching and allowing poor practise from participants. Staff teaching out of date techniques/what they have always taught.	CPD and retraining opportunities- given in training needs analysis. Developing and using a written scheme of work for staff to follow. Monitoring of staff delivering sessions by head of coaching and performance. External validation via Technical Expert visits.
Distractions external/internal	Participants	Participants not being correctly attached resulting in a fall from height.	Staff to report to duty managers when they are feeling overwhelmed due to personal distractions. Appropriate actions may include a change in staff for the lesson.
Use of/managing assistants	Participants, Staff	Participants not being correctly attached resulting in a fall from height. Assistants not fully understanding what they are supervising/managing, allowing	If assistants are used, the instructor must clearly define their responsibilities. Suitably experienced assistants may be used but the member of staff is responsible for their actions.

		poor practise from participants.	
Participants			
Level of preparedness for the activity	Participants	Sports injury	Ensure the participants are correctly warmed up for the intensity of the activities they are performing.
Not correctly dressed for activity	Participants	Entrapment by hair, clothing, jewellery	Ensure hair is tied back, jewellery is removed, and baggy clothing is removed.
Specific medical or educational needs	Participants	Various	Staff should be aware of any specific needs. Specific advice can be obtained from the TA if required.
Behaviour	Participants	Managing poor and disruptive behaviour could distract staff from their main responsibility of managing participants.	Positive engagement and well delivered schemes of work instructors should try, where possible, to reduce the amount of 'down time' the participant experiences, reducing the opportunities for the participant to get bored. Auto belays are particularly useful for this.
Getting scared	Participants	Psychological harm, disengagement, potential for poor behaviour choices.	Progressive approach to gaining height on the wall, not encouraging the participants to go past where they are comfortable. Let them decide what their success is.
Number of participants	Participants	Participants not being correctly attached resulting in a fall from height.	Appropriate scheme of work to ensure participants are engaged while on the floor. Instructors should be appropriately experienced for the size of group.

EXTERNAL INSTRUCTORS

Hazard	Who can get hurt	How	Control measures
Poor/inadequate supervision of participants by staff	Participants, Bystanders	Participants poor behaviour while waiting their turn, resulting in injury.	Supervision ratios- ratios should factor in needs of the group including what level/skills they are being taught and the learning needs of the group. Contact us beforehand to discuss session needs and ratios. Induction for external staff.
Ongoing staff competency	Participants	Staff teaching inappropriate progressions. Staff not understanding what they are teaching and allowing poor practise from participants. Staff teaching out of date techniques/what they have always taught.	Make sure they are current in the skills they are going to teach; they should be a member of a professional body. E.g. AMI, MTA. Qualified - mountain training supervision awards. Could accept others on a case by case e.g. high-level military award holders (TA sign off). 270 Climbing reserve the right to observe sessions/refer to our TA.
Distractions external/internal of instructors	Participants	Participants not being correctly attached resulting in a fall from height.	Report to duty managers when they are feeling overwhelmed due to personal distractions.
Use of/managing assistants	Participants, Staff	Participants not being correctly attached resulting in a fall from height. Assistants not fully understanding what they are supervising/managing, allowing poor practise from participants.	If assistants are used, the instructor must clearly define their responsibilities. Suitably trained assistants may be used but the member of staff is responsible for their actions.

ROPE CLIMBING AND AUTO BELAYS

Hazard	Who can get hurt	How	Control measures
Structural failure	Participants, Staff, Bystanders	Impact/ crush injury from wall	The wall is built to the standards of BS EN:12572: 2017. Structural inspection annually.
Incorrectly fitted or adjusted harness	Participants and Staff	Entrapment from badly fitting harnesses. Injury from the harness. Falling out of the harness.	Participants wear correctly sized and fitted harnesses. Straps left loose on group harnesses and tucked away on sport harnesses to avoid catching on holds.
Jewellery, loose clothing	Participants	Entrapment/suspension from loose clothing. Degloving from rings.	Participants instructed to remove jewellery and loose clothing before starting the activity. Hoods tucked in when using auto belays.
Fall due to climber not attached/ clipped in	Participants	Impact with the floor due to not clipping in. Distracted climber/no pre climb checks/auto no longer in situ/climber not experienced/not used device before.	Instruction given before novices use auto belays. Floor walker in auto belay areas. No headphones that block external sounds. Climbers taught to complete pre-climb checks. Rope or signage put in place when an auto belay is out of action. Belay checks upon entry include checking auto belays.
Fall due to poor belay technique	Participants	Too much slack in the system. Failure to hold fall. Loss of control when lowering.	Belay check before use of the centre. Floor walker. Use of friction / assisted braking devices only. Equipment is in date, staff authorised to check kit if deemed necessary. No loose clothing that can be caught.
Belay device not set up correctly	Participants	Loss of control while belaying. Detachment from belay	Belay checks using their device before climbing. Floor walker aware of common belay devices and methods to intervene with incorrectly set up belay devices.

		device.	Novice climbers attend courses to learn belay technique.
Lowering off the end of the rope/rope too short	Participants	Fall from height, impact with floor.	Signage for the length of rope required for the wall. Floor walker trained to correct incident of rope too short. Climbers advised to put a knot in the belay end of the rope. Belayers advised to stand close to the wall.
Fall due to rope failure	Participants	Fall from height, impact with floor.	Centre ropes follow inspection requirements. Floorwalkers trained to intervene when a customer rope is obviously visually non-compliant for the climbing they are undertaking. Ropes used within manufacturer's guidelines.
Trip hazards on mat	Participants, Staff, Bystanders	Impact with objects, sports injuries.	Areas on the mat must be kept clear. Spaces to store bags. Floor walker advises anyone to move things left on the mat.
Hair/clothing stuck in belay device	Participants	Skin irritation. Hair loss. Injury from fall from height.	Groups instructed to tie hair back at the start of the session. Floor walkers/instructors taught to rescue.
Loss of control of rope	Participants	Rope burns, abrasion to limbs.	Guidance to not grab the rope when taking falls. Proper teaching of lowering and catching falls to avoid the rope slipping through the hand.
Fall or jump with bad landing	Participants	Sports injury	Option to pre-clip the first quickdraw if there is a high risk of falling before the first clip. Grades displayed to allow people to judge difficulty against their ability. Route setting is set easier than the full grade for the first few clips.
Incorrect use of auto belays (out of line with manufacturer guidelines)	Participants, Staff, Bystanders	Impact with wall from uncontrolled swing.	Auto belays are fitted as per guidelines. Staff carry out daily checks, weekly checks and 6 monthly checks, the auto belay is sent off to headrush for the annual service. Auto belay inductions include guidance on the correct use of the auto belays.

			All staff using auto belays receive site specific training. Participants advised to protect back and head in the event of rotating on the wall.
Equipment failure	Participants, Staff, Bystanders	Fall from height	All centre owned equipment is checked and recorded on PaperTrail. Auto belays receive their annual service on top of regular inspections. Customer's PPE must not exceed 10 years old. Instructors reserve the right to inspect customer equipment.
(Fun Wall) Additional collision risk on Chimney element	Participants and staff	Bruising and distress from collision with walls on the way down.	Participants are instructed to climb down the chimney element to avoid this.
(Fun Wall) Double trouble element	Participants and staff	It is possible for participant to climb on top of this element and become trapped	Participants are instructed not to climb on top of the element or hold onto chains at the top. They are also asked to climb down this element.
(Fun Wall) Double trouble element	Participants and staff	Entrapment/entanglement on double trouble handles	Participants are asked to climb down this element, instructors monitor this throughout the session.
(Fun Wall) Double trouble element	Participants	Participants knocking each other off of the element - leading to uncontrolled descent	Staff training and group management
(Fun Wall) DNA element	Participants and staff	Additional entrapment/entanglement with rungs on DNA	Participants asked to climb down this element, instructors monitor this throughout the session.

Risk of being fallen on by a climber coming down whilst you are below wall	Participants and staff	Crushing/collision injury	When auto belays are engaged, green matting is on the floor, indicating climber above. All climbers using the fun walls are given a safety brief on the use of auto belays and the landing zones are clearly marked with a line on the floor which participants do not cross whilst green mat is down.
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OUTDOOR BOULDER

Hazard	Who can get hurt	How	Control measures
Environmental Factors			
Cold	Participants	Sports injuries	Induction to advise warming up, a range of grades to allow for slow progression. Use of main bouldering room to warm up before using outdoor boulder.
Frequent temperature change can loosen holds	Participants	Uncontrolled fall	Induction- advise informing a member of staff so it can be corrected. Pinning holds.
Heat	Participants	Greater risk of heat exhaustion. Sun exposure.	Ensure water is openly available for climbers using outdoor boulder. In exceptional heat outdoor boulder will be closed.
Ice & snow	Participants	Slips and falls from surface change	On days where ice and snow are present the outdoor boulder will be closed with conditions supervised closely before reopening.
Wet matting from rain	Participants	Slips and falls from surface change	Area to be cordoned off when wet. Water will be removed by use of mop or similar cleaning implement with area only opened when fully dry.
Boulder Wall			
Change of height of flooring	Participants, Supervisors, Staff	Trip/falls, lower limb injury Lower limb entrapment between mat and walkway.	Visual inspection of matted areas. Induction to get member of staff if section of the mat lifts at joint. Monitor soft spots and dropping away from walkway.
Unauthorised access to bouldering areas	Public, Bystanders, Participants	A range of injuries including fall from height	Controlled access to bouldering areas through sign in at main desk and restricted through access from group areas.
Structural integrity of the wall	Participants, Staff	Fall from height. Crush injuries from sections of the wall.	Visual pre use inspection of the wall before use. Regular inspection of the wall and surface. Annual inspection from an appropriate external company. Wall

			certified to meet the standards of BS EN:12572: 2017.
Route setting	Participants	Poorly set routes could cause swing or over rotation when falling resulting in a poor landing position. General sports injuries from inappropriate moves. Moves set towards exclusion zones.	Ensure appropriate testing of routes. Ensure holds are placed to limit participant interactions, moves are appropriate to the route difficulty. Briefing participants to route read and consider actions of other participants. General observations from staff.
Spinning holds	Participants	Unexpected/uncontrolled falls from routes.	Route setters trained and routes checked before being opened to the public. Induction includes reporting any spinning holds to staff.
Entrapment	Participants	Fingers trapped behind holds, through bolt holes. Potential for finger amputation and degloving	Routes checked and tested before opening to the public. Setter training to ensure holds are placed correctly and reduce the chance of entrapment.
Participants			
Impact with wall, volumes and holds	Participants	Sports injury	considerate setting e.g. avoid large holds below screw-on
Hit by a falling climber	Participants, Supervisors, Staff	Impact with falling climber, broken bones, impact injuries	Induction includes information about fall zones. Signage. All participants sign acknowledgement of risk form which includes ABC bouldering video.
Hit by falling objects	Participants, Supervisors, Staff	Impact with falling objects	Participants are instructed not to climb with objects in the pockets. All kit being used at height must be appropriately secured. Exclusion zones for WAH.
Object on the boulder mats	Participants	Falling on the object	Induction to bouldering. Floor walkers. Lockers for storage of kit. Signage.
Protruding walls	Participants	Running into the walls	General behaviour of the group, discourage running unless in an instructed group.

RISK ASSESSMENT:
CLIMBING & BOULDERING



Participants grabbing the top of the wall	Participants	Injury from bolts, screws on the other side of the wall	Induction.
Participant stuck (nervous to climb/jump down) at the top of the wall	Participants	Uncontrolled falls when tired	Easier route (in comparison) next to harder routes to allow for down climb options and down climb jugs for riskier movements. Instructor encourages participant to slowly build confidence on the wall.

PIPELINE

Hazard	Who can get hurt	How	Control measures
Environmental Factors			
Cold	Participants	Sports injuries	Induction to advise warming up, a range of grades to allow for slow progression. Use of main bouldering room to warm up before use.
Frequent temperature change can loosen holds	Participants	Uncontrolled fall	Induction - advise informing a member of staff so it can be corrected. Pinning holds.
Heat	Participants	Greater risk of heat exhaustion	Ensure water is openly available for climbers. Fans/aircon system in place to reduce heat. Doors to be opened to air building out further.
Boulder Wall			
Change of height of flooring	Participants, Supervisors, Staff	Trip/falls, lower limb injury Lower limb entrapment between mat and mezzanine floor	Visual inspection of matted areas. Induction to get member of staff if section of the mat lifts Monitor soft spots and dropping away from mezzanine floor.
Structural integrity of the wall	Participants, Staff	Fall from height. Crush injuries from sections of the wall	Visual pre use inspection of the wall before use. Regular inspection of the wall and surface. Annual inspection from an appropriate external company. Wall certified to meet the standards of BS EN:12572: 2017.
Route setting	Participants	Poorly set routes could cause swing or over rotation when falling resulting in a poor landing position or impact with side wall. General sports injuries from inappropriate moves. Moves set towards exclusion zones	Ensure appropriate testing of routes Ensure holds are placed to limit participant interactions, moves are appropriate to the route difficulty. Briefing participants to route read and consider actions of other participants. General observations from staff.
Spinning holds	Participants	Unexpected/uncontrolled falls from routes.	Route setters trained and routes checked before being opened to the public.

			Induction includes reporting any spinning holds to staff.
Entrapment	Participants	Fingers trapped behind holds, through bolt holes. Potential for finger amputation and degloving.	Routes checked and tested before opening to the public. Setter training to ensure holds are placed correctly and reduce the chance of entrapment.
Participants			
Climbing beyond ability level	Participants	Sports injury. Whiplash through landing on back. Uncontrolled fall due to climbing too far above grade.	Due to the inclined matting climbers must be climbing at grading level 3 or above to access the pipeline. Climbers must also try to land on their feet when coming off the pipeline and if at the top must hang and drop with control onto the matting. Induction to use pipeline with outline of risks and correct falling / landing procedure.
Impact with wall, volumes and holds	Participants	Sports injury	Considerate setting e.g. avoids large holds below screw-on. Discourage climbers going back down the pipeline and include risk of bumping head on holds as part of the induction.
Hit by a falling climber	Participants, Supervisors, Staff	Impact with falling climber, broken bones. Impact injuries.	Induction includes information about fall zones. Signage. One climber at a time allowed in pipeline.
Hit by falling objects	Participants, Supervisors, Staff	Impact with falling objects	Participants are instructed not to climb with objects in the pockets. All kit being used at height must be appropriately secured. Exclusion zones for WAH.
Object on the boulder mats	Participants	Falling on the object	Induction to bouldering. Floor walkers. Lockers for storage of kit. Signage.
Participants grabbing the top of the wall	Participants	Injury from bolts, screws on the other side of the wall	Induction.
Participant stuck (nervous to climb/jump down) at the top of the wall	Participants	Uncontrolled falls when tired	Instructor encourages participant to slowly build confidence on the wall. Climbers must be climbing at grading level 3 or above to access the pipeline.