



INDIAN NATIONS COUNCIL  
BOY SCOUTS OF AMERICA®



# Standard Operating Procedures for Artificial Climbing Structures On Council Property

(as of 05/05/2022)

**This manual covers the following sites for use by properly trained Instructors:**

- Outdoor Tower, Indoor Wall and traversing tower at Mabee Scout Reservation
- Outdoor Tower and Indoor Wall at Hale Scout Reservation
- Outdoor Climbing Wall and traversing wall at Graves Scout Reservation (OuterLimits)
- Climbing Wall, Rappelling Stations and Giants Ladder at Aerial Adventure Tower at ZBase

## **ABOUT THIS DOCUMENT**

These Standard Operating Procedures (SOP) are intended to support the Level 2 Instructor (Climbing or Artificial Climbing Structure) or Director on hand for the event by providing information to be used while operating the artificial climbing structure. Additional information and BSA policies from NCAP covering camp use, first aid, etc. as referenced during training will also apply but may not be specifically identified or described herein.

All Instructors on site should recall that:

- Current Council Climbing Policy shall apply and should be known by Instructors on hand and should be maintained during event. See Cope and Climbing webpage for current policy.
  - From Council Policy: “Regardless of their level of training, every Climbing Instructor within the climbing site during an event is expected to maintain safe climbing conditions at all times and work within their personal capabilities and experience.”
- The most current edition of Belay On is the document for reference for climbing activities within the BSA program.
- Climb On Safely provides awareness and identifies requirements for a Unit based climbing activity – regardless of location. Please assure that Qualified Supervision is on hand to assist Instructors in the activity.
- By reference, these SOPs also support OSHA 29 CFR 1910 regarding fall restraint and fall arrest needs.

## **RESERVATION and USE of Council Property**

A site reservation form shall be used and approved by Council Representative PRIOR TO using any council climbing site referenced to assure that instructors are identified, are of proper training levels and provide sufficient staffing.

### **Unit Check In**

Before starting activities or visiting climbing site, check in with Camp Ranger. The Lead Instructor must present a copy of the approved reservation form with photo ID to Ranger for access to equipment and/or any climbing site.

### **Equipment Check Out and Return**

Prior to start of event-

1. Ranger will provide direction to equipment and climbing area.
2. Registration form will show what site is reserved for use and if allowed to check out equipment or ropes.
3. If using Council gear, the pre-use inspection form shall be completed during check out process.
4. Use Inventory sheet for site and pull gear – ranger confirms what equipment has been checked out for use.

At the end of the event-

1. Collect all equipment, rope and gear and return to storage location.
2. Climbing Instructors shall inspect equipment, ropes and gear for and note any equipment concerns or damage experienced during event activities.
3. Instructor(s) shall fill in all log books (rope, helmet or harness) with information needed.
4. Ranger can confirm the return of all Council equipment and gear in clean and good condition and logs filled in for usage.

## **Event Staffing:**

A Lead Instructor is required and shall be a current registered scouter having completed ACS 2, COPE 2, CLI 2 or NCS COPE or Climbing Director or other BSA recognized climbing training (see current Climb On Safely). At least one additional trained Instructor of appropriate Level 1 or better training must be present to use site.

From Climb On Safely, the Lead Instructor shall assure that Qualified Supervision is also present the group on hand. If needed, Lead Instructor can adjust numbers of participants within climbing area to assure coverage and attention.

## **General Operating Information >>>> please read!!**

1. All BSA COPE & Climbing requirements, current Council policy, prior training and personal experience shall govern activities.
2. At least one adult at the activity site must have current training in CPR and first aid or Wilderness First Aid during all activities.
3. A First Aid Kit shall be present at activity site – Unit supplied for unit based activities.
4. Pre-use inspections are performed at all sites and on equipment to be used prior to starting activities. As needed, critical maintenance items are documented, promptly addressed and remediation is documented with Ranger prior to starting activities. In the event that repairs are not feasible, the affected site, element or component will be avoided and / or an alternate used.
5. Weather and environmental conditions shall be monitored continuously during the activities and appropriate actions, including the termination of the event, shall be taken to keep participants and instructors safe.
6. Personal helmets and harnesses are allowed only after inspection and approval by the Lead Instructor present.
7. For instructors or participants on top of a tower or wall: all parties shall be placed on a safety tether using steel autolocking carabiners when they arrive onto platform. Tether shall be adjusted to prevent anyone from extending beyond edge of platform and experiencing a fall of any length (fall restraint). Council has appropriate manufactured tethers for use.
8. Full body harnesses may be used by instructors but are not required if proper tether use and adjustments are maintained. Council has full body harnesses for use.
9. Anyone over shoulder height from the ground shall be properly belayed or use an independent safety tether connected to a safety line. No one, including instructors, shall be functioning in an unsafe manner.
10. Spotting climbers is always a best practice and should be used during activities. Participants should be trained in proper spotting techniques prior to and perform this function during activities.
11. A backup belayer shall always be used for any activity – climbing or rappelling – as described below.

## **Safety Orientation for Participants:**

Prior to setting up or starting activities, Instructors will conduct a safety orientation with all participants explaining the following:

- There are inherent risks of the activities – safety is for everyone and monitored by all so watch each other and the instructors.
- A red zone is identified for all - instructors, observers and participants.
  - No one, including an observer, is allowed in a red zone without a helmet properly fitted.

- Review Challenge by Choice and present activities for the event.
- Review proper fit of helmet and harness being used and importance to maintain fit.
- Review commands to be used during climbing or rappelling activities.
- Never sit or place anything on railings or ledges at height; it can fall and injure someone.
- Keep ALL equipment out of dirt at all times and avoid stepping on rope or other soft goods. If Council owned equipment or gear needs to be cleaned up after use, the Lead Instructor shall be responsible for assuring everything is cleaned properly and dried as needed prior to return to Ranger and storage.

## **Incident Resolution and Reporting:**

Incidents may occur anytime, anywhere. The most important mental challenge in the event of an incident is also the most difficult - You must remain calm! In the event of an incident:

- Lead Instructor shall direct or perform the rescue with safety in mind, getting the affected party to the ground safely. Expected rescue situations include:
  - Climber unable to progress or experiences health issues.
    - Belayer supports climber to free self/reset to start climbing again.
    - Or
    - Belayer carefully lowers climber to ground under supervision of Lead Instructor.
  - Repeller unable to lower - belay device jammed, loss of control, nonresponsive
    - Belayer and back up belay hold participant in safe position.
    - Lead Instructor coordinates instructors to lower participant safely to ground.
  - Belayer unable to continue activity
    - Participant holds positions (if able).
    - New belayer or back up belay performs belay transfer to replace.
    - New back up belay takes position.
    - Participant can continue or return to start based on needs.
- Dial 911 and administer First Aid / CPR as needed or determined by trained first aid individual(s) on hand.
- Inform the Camp Ranger immediately for additional assistance and further coordination.
- Remove all participants from the area that are not directly involved in the situation as needed.

## **REPORTING**

An adult present shall have all persons present immediately write down their own independent observations of the event.

Do not disassemble any equipment associated with the accident.

A council representative will document the set up and disassemble gear

As directed by a Council representative, fill out the appropriate incident form(s) and follow directions on the incident forms.

Deliver form(s) to the appropriate Council leadership.

# **OUTDOOR Climbing Towers or Walls:** **STANDARD OPERATING PROCEDURES**

## **SET UP - CLIMBING ROUTE(S)**

- For climbing, a sling shot or top rope belay is used with the belayer on the ground. A belay from the top of tower should only be performed used by trained instructors.
- A back up belay shall always be used regardless of the belayers experience.
- Climbers may top out – finish climb to stand on platform at top of structure - only if a Level 2 instructor or Director is present on top of climbing structure so climber may be secured to safety cable with proper tethers.
- If top out is not allowed by Lead Instructor, climbers shall be lowered by belay or down climb to ground.
- Monitor the number of participants on top of any tower closely – a minimum number of bodies should be present so instructor(s) may maintain observation and control at height.

## **RIGGING for CLIMB**

1. P Cords (Pull Cord – a thick string) are installed on each climbing wall surface.
2. P Cords start at ground level and should be used to pull one rope end from ground, through top anchor (a shear reduction block or rated link) on anchor cable and back to ground.
  - a Make sure to secure opposite end of rope so it is not pulled from ground.
  - b If P Cord is missing, discuss with Ranger how to replace or if another wall is available.
3. Lead Instructor may either have climbers tie selves in using Figure 8 follow through or use locking carabiner and appropriate knot to connect rope to harness. Set up accordingly.
4. Close your system and tie knot at standing end (unused or belay end) of rope.

## **SET GROUND ANCHOR with belayer out of system**

1. Use available ground anchor – typically a 3-4 inch diameter steel pipe, cemented in ground, with staple or loop installed near top.
2. Using webbing, construct anchor on post using wrap 3, pull 2 or basket hitch with webbing about pole and through staple to keep webbing secured on post.
3. Use locking carabiner to join webbing ends – no girth hitches please.
4. Thread activity line through belay device and connect device to webbing attached to post with a locking carabiner.
5. Test operation of belay system and confirm that belay system is closed – that there is a knot at the end of the rope.

IN SYSTEM BELAY OPTION: If a ground anchor is missing, damaged or otherwise not used, belaying off the belayer (in system belay) is acceptable. All Instructors present should assure that proper loading of the belayer is maintained, good footing is available to belayer and back up belayer and anchor team (if used) and that the belayer is prepared and capable to belay the climber. It is required that a belay back up is used; adjust plans as needed to support requirement. The Lead Instructor has the training and ability to decide the best approach for every belay and should remain aware and adjust roles and duties as needed.

## **SET UP - RAPPELLING ROUTE(S)**

- Rappelling from the top of a climbing structure is allowed only if a Level 2 or Director is present on top to supervise transfer from climbing to rappelling activities.
- Every individual (instructor or participant) on top of a climbing structure shall be secured by a safety tether until ready to rappel or leave platform.
- To rappel from a platform, an independent, top or bottom belay is recommended for use.
- A fireman's belay is acceptable for use for single rappel line.
- A belay backup shall always be performed. This means two people on a fireman's belay if an independent belay line is not used – one is the belay, second is backup as participant is not the first belay.

### **Setting Rappelling Activity Line on solid wall section:**

1. Haul rope, gear and hardware needed from bottom using climbing rope set up from above. Instructor should minimize number of items carried when accessing tower to remain safe. Once on top, instructors should immediately secure themselves and others using safety tethers to safety cable present on wall or tower.
2. Tie a munter/mule (or properly secured/tied belay device) on a steel carabiner attached to the steel anchor cable – this is the primary anchor.
  - a. Webbing loop(s) can be used to position steel carabiner on steel cable if a fixed anchor is not available on steel cable.
  - b. At least 6 feet of rope with stopper knot at end should be available at ground for use in fireman's belay and safety.
  - c. If an independent belay is also used, make sure enough rope is available to allow rappeller to reach ground.
3. Close rappel system with figure 8 or stopper knot at end of all ropes in use or at ground level.

### **Setting Rappelling Activity Line on open wall section (for free hanging rappel):**

1. Haul rope, gear and hardware needed from bottom using climbing rope set up from above. Instructor should minimize number of items carried when accessing tower to remain safe.
2. Lead Instructor shall decide based on tower items available:
  - a. If a horizontal wooden post (typically 12 to 16 minimum diameter) is present and installed overhead, a tensionless wrap about the post may be used to anchor the rappel line.
  - b. Since steel anchor cables should always be present and available on towers, a munter/mule (or other releasable set up) tied to steel carabiner attached to the steel cable can be used.
3. Instructor should always route the rappel rope and belay rope in a manner that prevents the rope(s) from being pinched, bound or otherwise impact rappel or belay activities. Pay attention and adjust routing as needed.
  - a. A rappeler should never lower between or over any cables, poles, posts or timber; they should always have free air available to rappel and manage their movement.

# **OPERATIONS**

## **CLIMBING ON THE TOWER OR WALL**

1. Ask the climber their name and advise others to stay behind the anchor post until their time to climb.
2. Ask the climber if they have done this before.
  - a. If "Yes": let them proceed independently based on skills, help only if necessary but confirm that everything they complete is correct.
  - b. If "No": then take them through the whole process verbally, tell them what is going to happen, helping them set up. (Make a point to use their name, maintain eye contact and explain the equipment / process)
3. Now have climber start C.H.E.C.K. process with belayer and correct anything as needed.
4. When done with C.H.E.C.K., climber and belayer begin "Climbing Verbal Commands". Verbal Commands should be spoken clearly but not screamed. If multiple walls are being used, designate specific walls to prevent belayer confusion. (e.g. Red and Blue, A and B, etc)
5. Belayer maintains constant visual on the climber and maintains their brake hand on the rope at all times from the beginning of the climb until the climber is done, back down on the ground and climber has given the verbal command "Off Belay."
  - a. It is recommended to always use a backup belayer on the ground – making sure slack rope is stacked and if belayer does not perform properly, close belay to halt climber progress.
6. After the climber is back on the ground and has given the "Off Belay" command, the climber is detached from the rope.
7. If the climber is topping out, only the climber should give the "Off Belay" command to belayer after Instructor has secured climber on top with a safety tether.

## **RAPPELLING ON THE TOWER OR WALL**

1. WHILE keeping rappeler on a safety tether, ask the rappeller if they have done this before.
  - a. If "Yes": let them proceed independently, help when necessary.
  - b. If "No": then take them through the whole process verbally, tell them what is going to happen, helping them set up. (Make a point to use their name, maintain eye contact and explain the equipment / process)
    - c. Feed rappel device for Right or Left Handed braking based on rappeller preference. Typically a tube style or Figure 8 device is used by Council.
    - d. With rappeller's back facing edge, clip the carabiner on the rappel device to the harness – gate down and locked – so that the rope is in proper position for rappel.
    - e. Clip independent belay line to harness with a locking aluminum (or steel) carabiner.
2. While still on safety tether, the rappeller moves to the rappel edge in full view of the belayer.
3. The rappeller and belayer start the C.H.E.C.K. process – correct any items as needed.
4. Once complete, they can begin "Verbal Commands for Belaying Rappeller".
5. The Instructor may remove safety tether from the rappeller AFTER "On Belay" is confirmed by belayer.
6. The Belayer maintains constant visual on the rappeler keeping their break hand in proper position at all times until the rappeler is to the ground AND given "Off Belay" command to belayer.
  - a. It is required to always have a backup belayer on the ground – making sure slack rope is stacked and if belayer does not perform properly, close belay to halt rappeler decent.
7. The rappeller can now be detached from the rappel device and independent belay rope.
8. If needed, attach rappel device, gloves and any other gear to independent belay line to haul back to top.

# **TAKE DOWN**

## **CLIMBING ROUTE(S)**

1. From the ground, untie knots in activity rope and remove any carabiners used to connect to climbers so nothing can prevent pulling rope through top anchor.
2. Attach P Line to rope and carefully pull rope up and P Line through top anchor, bringing P Line back to ground.
3. Secure both ends of P Line together and then to structure at bottom.
4. Remove all equipment and materials used to set up ground anchor.

## **RAPPEL ROUTE(S)**

Three methods to descend from tower.

1. Rappel from tower on double line rappel with fireman's belay OR
2. Break down rope(s) used during rappelling and lower or down climb on belay using climbing rope prior to it being taken down OR
3. IF available and IF Instructor has proper COPE training, traverse COPE element using safety tethers attached to overhead cable to fixed ladder and descend using tethers to ground.
4. Always lower any extra equipment or gear before descending from tower when on rappel.

## **RAPPELL - Instructor is last to leave platform**

1. Making sure that safety tether is anchored properly to tower safety cable, check area and assure that all equipment and gear has been lowered from tower. At least 1 belay device and locking carabiner will be required to rappel. Autoblock is also recommended if Instructor does not have backup belay at bottom.
2. Feed rope through anchor point OR if spar pole is available, drape rope over pole and assure it can be pulled from pole freely after descent.
3. Assure that both legs of rappel line are to ground and have stopper knots on each end and a fireman's belayer and back up is present and holding both rope segments evenly. Care should be taken to assure that both rope segments remain at ground and do not travel upwards while descending.
4. Complete C.H.E.C.K. with belayer – do not rush.
5. Take in any slack on rappel lines and test operation and feed of rappel lines.
6. Place self ON BELAY with fireman's belay as back up.
7. NOW detach safety tether from cable and secure to self in manner that will not interfere with belay activity. Rappel from tower to ground with fireman's belay.
8. Once on ground, take self "Off Belay" and clear rope from belay device.
9. Remove stopper knots and CAREFULLY pull one side of rope to pull rope over anchor log or through anchor and allow rope to fall back to ground.
10. Coil rope and clear area.

## **LOWER or DOWNCLIMB as last Instructor to leave platform**

1. Making sure that ONE leg of safety tether is anchored properly to tower safety cable, check area and assure that all equipment and gear has been lowered from tower.
2. Connect climbing rope to harness and test function and check that rope feed does not pass over and cables or surface – only edge – of climbing wall. Adjust as needed.
3. Complete C.H.E.C.K. with belayer – do not rush.
4. Place self "On Belay" and remove safety tether.



5. Move self UNDER anchor and safety cables to keep rope free of these edges – rope should only run from belayer, through top anchor and to you, the climber.
6. Move onto wall and down climb or allow belayer to lower using commands as needed.
7. Once on ground, take self “Off Belay” and then proceed to take down climbing route.

**COPE ELEMENT TRAVERSE – See Site Specific Manual for details, otherwise climbing instructor training does not include this activity and so do not attempt.**

# **INDOOR Climbing Walls**

## **STANDARD OPERATING PROCEDURES**

Indoor climbing walls are only approved for climbing using top rope belay. No rappelling allowed.

### **SET UP**

#### **CLIMBING ROUTE(S)**

#### **RIGGING for CLIMB**

1. P Cords (Pull Cord – a thick string) are installed on each climbing wall surface.
2. P Cords start at ground level and should be used to pull one rope end from ground, through top anchor (a shear reduction block or rated link) and back to ground.
  - a. Make sure to secure opposite end of rope to ground so it is not pulled from ground.
  - b. If P Cord is missing, discuss with Ranger how to replace or if another wall is available.
3. Lead Instructor may either have climbers tie selves in using Figure 8 follow through or use locking carabiner and appropriate knot to connect rope to harness. Set up accordingly.
4. Close your system and tie knot at standing end (unused end) of rope.

#### **SET GROUND ANCHOR – belayer out of system is best**

1. At Mabee Scout Reservation, use available ground anchor installed at base of roof support truss. This is a forged, climbing rated, eye bolt for your use.
  - a Tie a webbing loop and attach to eye bolt with locking carabiner to create ground anchor extension to point where Lead Instructor wants belay positioned.
    - i Watch for any overhead lights or fans to assure that belay line is and remains clear during use.
  - b Revise equipment and adjust belay position as needed.
  - c Thread activity line through belay device and connect to webbing loop attached to eye bolt.
  - d Test operation of belay system and confirm that belay system is closed – that there is a knot at end of standing or free end of rope.
2. Hale Scout Reservation has leap anchors installed to bottom of climbing tower for use a ground anchor.

IN SYSTEM BELAY: If a ground anchor is missing, damaged or otherwise not used, belaying from the belayer (in system belay) is acceptable. All Instructors present should assure that proper loading of the belayer is maintained, good footing is available for all involved in the belay (including back up belay) and that the belayer is prepared and capable to belay the climber. The Lead Instructor has the training and decision for every belay and should remain aware and adjust roles and duties as needed.

# **OPERATIONS**

## **CLIMBING ON THE WALL**

1. Ask the climber their name and advise others to stay behind the anchor post until their time to climb.
2. Ask the climber if they have done this before.
  - a. If “Yes”: let them proceed independently based on skills, help only if necessary but confirm that everything they complete is correct.
  - b. If “No”: then take them through the whole process verbally, tell them what is going to happen, helping them set up. (Make a point to use their name, maintain eye contact and explain the equipment / process)
3. Now have climber start C.H.E.C.K. process with belayer.
4. When done with C.H.E.C.K., climber and belayer begin “Climbing Verbal Commands” communication process. Verbal Commands should be spoken clearly but not screamed.
5. Belayer maintains constant visual on the climber and maintains their break hand at all times from the beginning of the climb until the climber is done, back down on the ground and climber has given the verbal command “Off Belay.”
  - a. It is recommended to always use a backup belayer on the ground – making sure slack rope is stacked and if belayer does not perform properly, close belay to halt climber progress.
6. After the climber is back on the ground and has given the “Off Belay” command, the climber is detached from the rope.

# **TruBlue Auto Belay Devices**

## **STANDARD OPERATING PROCEDURES**

### **Mabee Indoor Wall and ZBase Adventure Tower**

These devices are designed and installed to provide a continuous take up of rope and a continuous belay to safely lower a climber in the event of fall or letting go after reaching the top of climb. Please note, these devices will not “hold” a climber in position like when using human belay so make climbers aware and allow them to test drive effect at bouldering height if desired.

These devices only require an Instructor to perform C.H.E.C.K. and then connect carabiner to climber harness.

- a. The Climber is immediately “On Belay” with device and no verbal commands are expected. Slack is automatically gathered and a continuous belay is provided.
- b. These devices do not hold a climber in place. Climbers should be made aware of and test this activity.
  - i. Have them climb just a few feet up and let go so they learn to trust the system.
  - ii. If they get to top and refuse to let go, you may have a recovery to make.

SET UP / USE: A P Line is attached to the steel carabiner (permanently attached to webbing) on the TruBlue and should be used to pull down the carabiner and P Line removed during TruBlue use.

1. Once to ground, the TruBlue webbing should be inspected for wear or damage prior to use according to printed instructors at site.
2. An anchor is installed at waist height on wall so you can clip carabiner to it when TruBlue is not in use. NOTICE – the device will retract (raise up) if you let go so always clip to wall when not clipped to climber.
3. If a TruBlue retracts, a climber may retrieve and bring the webbing/carabiner back to the ground. The climber must be on belay while doing this and use climbing lane immediately next to the retracted TruBlue to avoid risk of a pendulum swing.

## **TAKE DOWN**

### **CLIMBING ROUTE(S)**

1. From the ground, untie knots in activity rope and remove any carabiners used to connect to climbers.
2. Attach P Line to rope and carefully pull rope up and P Line through top anchor as found, bringing back to ground.
3. Secure both ends of P Line to structure at bottom.
4. Remove all equipment and materials used to set up ground anchor.
5. For TruBlues - attach P Line to carabiner and allow device to retract webbing back to top then secure P Line to wall.
6. Return crash pads, if present, to wall.

# **Traversing (Bouldering) Walls or Tower:** **STANDARD OPERATING PROCEDURES**

A Climbing Instructor Level 1 or better should be on site during activities.

Boulderer should remain below their shoulder height so that no additional climbing gear is needed for the activity. Helmets are a good addition and recommend.

Always have other climbers spot climbers when bouldering – helping to keep a climber upright when falling, not catching them.

A supervisor should keep participants moving in same direction and keep climbers from crossing over each other – fall risk.

Gateway Tower at Mabee is specifically designed and constructed to allow any scout to use provided that adult supervision is present. All holds can be used as desired but several “routes” are present for added challenge:

Autobahn – natural colored handholds at ~6 foot height.

Thunder – orange and blue handholds from 6-8 foot height.

Christmas – red and green handholds from 6-8 foot height.

Pro – lime green handholds at maximum height for average adult.