

# Climbing Walls

## Route Setting

*Notes developed by Tim Wethey and Nic Harvey, March 2016*

A double rope system is strongly recommended. A single rope system is not good practice.

The general concept is described and pictured below. It does not cover some details, e.g. how to rescue an injured or marooned route setter.

It is recommended that you get a certified rope access technician to check and refine your method, including rescue procedures.

### **The working rope**

Use the existing fixed rope on the route as the ascent/descent/work-positioning rope.

- The route setter attaches to the 'climber's end'.
- To the 'belayer's end' attach:
  - A belay/descending device. A rescue-rated belay/descending device is recommended, e.g. ISC D4, Petzl RIG. A Petzl Grigri is not rated for rescue or access.
  - An ascender and etrier.

The above arrangement gives a mechanical advantage to make ascending easy, and does not rely on a ground anchor.

### **The safety rope**

This is the second rope.

- Fix a separate, semi-static rope to the working rope's anchor. This anchor must be indisputably bombproof for this to be acceptable – if not, a separate anchor is required (although this can generate a pendulum issue).
- Put a backup device on the safety rope (travels freely up, locks on a fall), e.g. Petzl ASAP, Petzl ASAP Lock, ISC Rocker, SafeTec Duck. Use the device in accordance with the manufacturer's instructions.

### **Efficiency tips**

- Ascending can be made easier still by passing the rope tail through a carabiner or pulley on the ascender, which enables the route setter to pull downwards on the rope rather than upwards.
- When route setting, an adjustable cowstail can be attached to a protection point for better positioning.

### Equipment

Clockwise from left:

- work positioning harness
- backup device.  
Note: an ISC Rocker is shown, which uses a short sling. Other devices may connect directly. Always follow the manufacturer's instructions.
- belay/ascending device (Petzl Rig shown)
- adjustable cows tail
- safety rope (semi-static, pref. 2x height of route)
- ascender and footloops
- helmet



### Ascending

Note:

- backup device on separate safety rope (semi-static)
- routesetter tied into working rope (green)
- on other end of working rope is:
  - belay/descender device
  - ascender and footloops
- tail of rope from ascender goes through carabiner (or pulley) so that routesetter can pull downwards



### Descending

