

# Western Colorado Climbers' Coalition (WCCC) Bolting Guidelines

The Western Colorado Climbers' Coalition (WCCC) has been requested by a variety of local climbers to publish general guidelines concerning the use of fixed anchors (bolts) at local crags.



In order to preserve the character of our limited resource, WCCC offers this brief history and established ethos to guide new route development in the area.

Fixed Anchors, in particular expansion bolts, have had a long and sometimes controversial history in Western Colorado. With the notable exception of John Otto's historic ascent of Independence Monument, early ascents were established as Trad Routes (ground-up using "traditional" removable protection such as pitons, and later, cams and stoppers). In more recent times, placement of expansion bolts to protect the lead climber has evolved to a new ethos of Sport Climbing, which is completely reliant on fixed protection for safety.

Climbing routes in Rifle Canyon, for example, were primarily developed by rappelling in from the rim, cleaning loose rock, and placing bolts where needed with the goal of making the route as safe as possible. Over time there has become an

acceptance of a "hybrid" type of free climbing. This is a mix of minimal bolts and removable protection. Examples of these routes can be seen in places like Unaweep and the Black Canyon.

Establishment of new routes at crags in Western Colorado are subject to a common understanding of standards specific to each crag or public lands designation. The idea of rappelling in and bolting a crack in Escalante is deemed unethical and a ground-up gear only route in Rifle seems pointless. Bolting in Colorado National Monument is mostly illegal. Crags in Unaweep Canyon are on a mix of public lands and private property. Therefore, it's important to know the ethics of a crag before you whip out the drill. With this in mind, here are some basic guidelines when developing routes.

- **Before developing a route, have some prior experience.**

The best way to do this is to find a local mentor. There is a lot that goes into placing fixed protection, and doing it wrong can endanger someone's life. Not all expansion bolts and glue-in bolts are created equally. Each has different torque or glue recommendations depending on the type of rock, so it's important to know what you're doing. Go to [www.safeclimbing.org](http://www.safeclimbing.org) and read their bolting tips. There is a lot of good information there, even for the seasoned route developer.

- **Know the Laws/Regulations for fixed anchors of the area.**

Different climbing areas have different laws regarding fixed anchors. The Colorado National Monument, for example, has some fixed anchors, but you are not currently

allowed to replace or add new bolts without permission from the Park (not easy). In contrast, it is acceptable to use a power drill without a permit on the sandstone cliffs of the Bureau of Land Management (BLM) areas in Unaweep Canyon. Rifle Canyon uses only bolts for protection, but requires a permit to add a new route.

- **Know the Ethic of the area.**

Different climbing areas have had different tactics employed for developing routes. In places like the Colorado National Monument and Escalante, route developers historically climbed ground-up with removable protection. Bolts were hand drilled and only when absolutely necessary. Rifle Canyon and many of the sport climbing cliffs in Ouray employ a top down approach with as many bolts as needed to make a safe route. While bolting ground up vs top down is a question of style, bolt placement is not. **If you are in an area that has a history of natural or traditional protection, it is not ok to place a bolt when traditional (removable) gear can be had. Examples of this would be Unaweep Canyon, The Black Canyon, and Escalante Canyon. In these areas, only place a bolt if the route is unsafe due to a lack of traditional gear or questionable placements. Also do your research to know if a route has been climbed previously sans fixed pro!** Drilling bolts, whether by hand or with a power drill, is regulated in wilderness areas and national parks. Know the rules before you go.



**Use appropriate hardware for the given crag.**

In the past, a variety of hardware has been used to develop routes on the Western Slope. After careful consideration, the WCCC board requires the following hardware on WCCC property (Sunday Wall area and Mothers Buttress area), and should be used in the future in all areas of Western Slope.

<b>Granite or Gneiss</b>	<b>Camouflaged (painted to closely match the rock color) ½ inch Stainless Steel (5 piece preferred)</b>  <b>OR</b>  <b>¾ Stainless Steel</b>	<b>Replace with Similar</b>
<b>Sandstone</b>	<b>Glue-in fixed anchor i.e. FIXE or Wave bolt</b>	
<b>Limestone</b>	<b>Camouflaged (painted to closely match the rock color) ½ inch Stainless Steel (5 Piece preferred)</b>  <b>OR</b>  <b>¾ Stainless Steel</b>  <b>Or</b>  <b>Glue-in fixed anchor i.e. FIXE or Wave bolt</b>	<b>Replace with</b>  <b>Glue-in fixed anchor i.e. FIXE or Wave bolt</b>
<b>Basalt or Volcanic</b>	<b>Glue-in fixed anchor i.e. FIXE or Wave bolt</b>	

Different types of fixed anchors are ideally suited for different types of rock. When placing in sandstone, only glue-in fixed anchors should be used. Expansion bolts tend to loosen up over time with flex given the soft nature of the rock. In limestone, glue-ins should ideally be used, and when replacing bolts in limestone, only glue-ins



should be used. In granite or gneiss a ½ inch Stainless Steel expansion bolt is the gold standard. For Basalt or Volcanic rock, glue-ins are ideal given the aerated pocketed nature of the rock. You want to avoid drilling a hole into a pocket under the surface that an expansion bolt can not anchor into given the void.

- **Don't mix Stainless Steel with Zinc Plated metal.**

Combining stainless steel with zinc plated steel can lead to accelerated corrosion and eventually failure of a fixed anchor. Make sure your bolts and hangers are of the same types of metal.

- **Is this route worthy of being bolted?**

When a developer sees a potential route that could be a first ascent, route developers often come down with a condition known as “Firstascentionitis.” The idea of putting up a first ascent outweighs the reality that what they are looking at is actually not a good route. The route will most likely never be repeated. This is usually due to awkward movement, poor rock quality or being ledgy with lots of vegetation. Another thing to consider is how close the route is to an existing route. Bolting a route that shares holds or bolts with an already existing route will likely take away from an existing classic and/or lead to over bolting/grid bolting. This can spoil the aesthetic of a crag or deface an already existing historical/classic route. When in doubt, ask around.

- **Ask permission from the first ascensionist or local community before adding, moving or removing bolts from existing routes.**

Many routes in more traditional areas use less fixed protection compared to sport routes. Many of these routes are historical and were cutting edge for their time and remain an adventure challenge. If you feel a route should have a bolt added or moved, get permission from the first ascensionist. If you feel like a route is unsafe or lacks adequate protection for your skill level, then don't climb it. There are thousands of other climbs available.

- **Make sure that you're not bolting a route that has already been climbed.**

Many historic routes are “run out” with little protection, or are climbed as top ropes. Just because there are no bolts on it doesn't mean it isn't a route.

- **Camouflage bolts or anchors to minimize visual impact.**

Bright and shiny bolts or anchors often can be seen as an eyesore by non-climbers (and land managers!) enjoying the outdoors. Try pre-painted hardware or paint your hardware in a similar color to the rock. Avoid using nylon webbing on anchors. It will bring unwanted visual attention as it bleaches in the sun, and can often be unsafe to rappel off after a couple years of baking in the sun.



- **Avoid slinging trees for permanent anchors.**

This will often damage and even over time kill a tree. The fixed webbing will become bleached and unsafe over time. Put in a bolted chain anchor.

- **Drill holes deeper than needed.**

This makes it easier when moving or replacing a bolt. The hanger can be taken off and stud can be hammered into the hole making it flush with rock. The hole can then be covered with a mix of JB Weld and sand to camouflage the hole. This will mitigate the use of an extraction tool.

- **Cover old bolt holes with JB Weld.**

Mixing JB Weld with sand and filling in bolt holes will make the rock look good as new!

- **Limit the amount of time you leave a fixed line.**

Try to limit the amount of time you leave a fixed line on a route. It can be an eyesore, and bring unwanted attention to the climbing community. Many parks have a 24-hour limit, so keep this in mind. Leaving a rope on your project for weeks is bad style.

- **Avoid using pitons as fixed protection.**

If passive protection can not be found, consider using a bolt instead of a piton. Pitons damage the rock and will often wiggle themselves out in a couple years due the extreme freeze/thaw and temperature change in Western Colorado This leads to making the route unsafe for repeat ascents.



- **Donate to the American Safe Climbing Association (ASCA)**

Rebolting routes takes time and money. Consider donating to the ASCA to help keep our crags safe! Reach out to them if you have experience and are willing to rebolt an unsafe route. They might supply you with hardware.

**[www.safeclimbing.org/](http://www.safeclimbing.org/)**

