



HOC Guide to Accessible Orienteering

Orienteering should be open to all not just the elite athlete. It is important that we look to cater for a wide range of people and that includes offering opportunities for more accessible orienteering when we can. There are many types of accessibility needs that can be considered and catered for within an orienteering environment. The below guide is primarily written with wheelchair users in mind but can be used as a base for other accessibility needs too. Accessible courses can also be used for those pushing prams or buggies which means they can also participate in events. Due to restrictions on where most wheelchairs can go this advice is principally aimed at urban events. However, with more varieties of buggies available and some designed for more trail type use there can be scope for including a course in a parkland environment. The overall principles of the guide can still be considered within that context.

Providing an accessible course at an event shouldn't mean a lot of extra work for the planner and organising team. The ideal scenario would be to consider the requirements in advance and build them into the plans from an early stage. That way they are part of the event and not an additional extra added at a late stage and requiring changes to the existing plans.

Ways to make courses accessible

Ideally it would be best practice to offer an accessible course at all urban events. Without providing courses there won't be the interest for them from potential users and it could be something that they wouldn't necessarily consider.

If there is potential for offering an accessible course, it also needs to be publicised to generate interest in the course. Ideally this should be included at an early stage to encourage participants and also give the planner the time to build it into the overall event plan. The need to provide an accessible start and finish could alter how the planner and organiser set up the overall event so it is worth considering at the beginning of the event planning process.

Accessibility needs can be varied so if an accessible course is being offered it is important to include a contact point to give interested participants the opportunity to discuss their needs with the event officials. The below general principles should assist in how to plan accessible courses. However, individual accessibility needs do vary, so it is important for planners and organisers to be flexible in attempting to finding solutions to potential issues raised by interested participants.

For example, it is useful to have a two-way conversation between the planner (and other event officials) and a wheelchair user. If the decision has been made to include an accessible course as part of the event it needs to be advertised and potential participants should be encouraged to contact the event officials in advance to describe their accessibility needs e.g. a large print map, need for disabled parking, accessibility of registration point or other amenities. The competitor can also advise on other issues such as size of wheelchair, turning circle or control registering requirements to assist the planner.

Courses should be planned with regard to potential hazards and barriers such as steps, railings, kerbs etc. (see potential hazards section for more details).

This can be done using a standard orienteering map or open orienteering map for smaller scale events.

For wheelchair users an annotated map should be provided to indicate potential hazard areas such as:

- No-go grassy areas

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- Safe crossing points
- Steps
- Paths that would be unusable due to barriers, gates or bollards
- Steep slopes

These can be marked up electronically using symbols such as crosses, out of bounds and crossing points (can also be accompanied by some text for clarity). Planning software such as Condes or Purple Pen will allow you to mark these on. If you are uncertain how to use these to annotate the maps talk to the club experts in these packages.

	<p>This segment shows how a map can be annotated using planning software.</p> <p>The main road without pavements is marked with crosses.</p> <p>The underpass is clearly marked as a crossing point.</p> <p>Steps and a mud path are indicated with a cross to show they are unsuitable routes.</p> <p>These could also be accompanied with a text note to say “steps” or “mud path”. However, it is important to not clutter the map and cover other important detail.</p>
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Alternatively, a paper version of the map can be annotated clearly or marked up with white sticky tabs with appropriate comments.

Any areas of concern should be highlighted to the competitor at the start or in a pre-event briefing note.

Night events – street lighting should also be considered. Any areas without good street lighting should be avoided.

It is worth noting that maps, particularly Open Orienteering Map based ones, are not perfect and things can change – for example gates that were open when the course was checked could be locked at the time of the event. However, all participants, including those with accessibility needs, would not expect the map to be perfect and can adapt round it.



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Risk assessments should include a section on accessible competitors.

Potential hazards

The urban environment includes a range of potential hazards that should be considered when planning a course for accessible orienteering.

1. Dropped kerbs – Look for road crossing points where the pavement has been lowered to road height. A wheelchair can't negotiate a kerb height of more than 4cm without the risk of tipping over. Searching for a dropped kerb can be frustrating to the competitor. Also look for height differentials where one path meets another.
2. Steps – these should be avoided for all wheelchair courses.
3. Road crossings – As well as dropped kerbs, all road crossings should have good visibility to enable the wheelchair user to cross safely. For busy roads a crossing by traffic lights or a pedestrian crossing should be used. These can be marked on the map.
4. Gates/gaps in railings – There are a wide range of wheelchairs and they come in lots of different sizes therefore it will depend on the competitor if they will be able to fit through. Gates that require opening can also be an issue due to reduced mobility. Gates and barriers designed to stop motorcyclists will also stop wheelchairs. Smaller gates and gaps can be marked on the map and mentioned in the event details and routes should be planned to avoid them.
5. Parkland and non-surfaced paths – Most wheelchairs will struggle with this type of terrain with wheels slipping and clogging up with mud and leaves. If it is wet it can make it even more hazardous. Therefore, it is best to avoid these and stick to paths covered with tarmac or a similar firm surface. Gravel paths are generally fine in the summer when it is dry. For night urban events the safest option is to plan the course so it sticks to pavements with parkland clearly marked as an unsafe option.
6. Bollards – Even one bollard in the middle of the path can block a wheelchair user. Check the route and mark these on the map, warn the competitor in advance and plan routes to avoid them.
7. Blocked pavements – Some pavements can be blocked by cars being parked on them or bins being left blocking the path. If cars normally use a path for parking on in a way that leaves an insufficient gap for a wheelchair to pass then it is not a suitable route.
8. Steep embankments – Wheelchairs will struggle to get up steep embankments so these should be avoided (both up and down). Also consider steep slopes to the side of paths – if a path is narrow or uneven then there is increased risk of a wheelchair slipping off the path and toppling over down the bank.
9. Inaccessible controls – If punching is going to be used avoid control locations that are off paths. Avoid placing boxes too high for a seated person to reach and make sure they are securely sited so they don't swing. If SIAC is being used the competitor still needs to get close to the box for the punch to register.

Ways to record the run

Depending on the type of event there are variety of ways that can be used to record the run. Some of these maybe more suitable for the competitor than others.

- Touch O – for QuizO style events the competitor would have to write down or remember the answers. This can be difficult for those with limited mobility.



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- SIAC/EMIT – If the competitor cannot hold the dibber it will need to be attached to a suitable place on the wheelchair. Controls will need to be positioned so the wheelchair user can get close enough for this to register. If the competitor is accompanied the helper can punch the control for them.
- Strava – The GPS track is recorded on a GPS enabled device and then sent to the organiser to check where they had gone and which controls they visited.
- MapRun/Usynligo – Free smartphone apps and ideal for use by wheelchair users. Run is recorded on the app and when the competitor reaches the correct location the app gives an audible signal and registers the control. Assistance might be required at the start and finish to help the competitor set up the app for the event.

Things to consider when planning

All event officials should be fully supportive of inclusive orienteering at the event.

Courses should still be challenging with route choice options – within the constraints outlined above.

Courses should have regard for the limitations of wheelchairs avoiding narrow gaps, mud paths, busy road crossings etc (see things to consider above)

Obstacles and potentially hazardous areas should be marked on the map.

Recommended course length of 2 to 2.5km for wheelchair users. Other accessibility needs participants should contact the organiser with their needs.

A finish time of around an hour is about right but consider the time of day and likely weather conditions.

For a score event look to provide a scattering of controls that could be visited on a distance of around 2 to 2.5km whilst taking potential hazards into consideration.

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Example risk assessment for accessible orienteering (Credit Katy Dwyer BOK)

Hazard	Possible outcome / injury including note on severity and likelihood of occurrence	Mitigation <ul style="list-style-type: none"> • What control measure? • Who is responsible?
Wheelchair user may be on their own with an electrically operated chair or accompanied by a helper or may be pushed by a helper.	Wheelchair batteries run out, inexperienced helper (a helper is either an officially appointed assistant called a 'personal assistant' (PA) or a friend or a family member), phone battery runs out, lose their way, wheelchair user may become ill, problems with unfriendly natives.	Wheelchairs to be in good running order with fully charged batteries. Helper must be reasonably experienced in dealing with wheelchairs. Fully charged mobiles for competitor and helper. Competitor has map with phone number of Organiser or similar printed on it and the number is in both phones. Reminder that competitors must be well/fit enough to take part – normal BOF rules. (Organiser)
Wheelchair course not suitable for wheelchair users.	Gateways too narrow, slopes too steep, grass muddy when wet, bollards on pavement, control hung too high for competitor to see the number or get near the control, course too long, any drops greater than 2 inches can upset the chair.	Controller has experience of wheelchair orienteer and has advised the planner to avoid/mitigate risks above. Control sites checked by planner and controller. Grass, steep slopes, narrow accesses avoided. Start for wheelchair users is with other shorter courses. (Planner & Controller)
Wheelchair orienteer and any helper must register for the event in the same way as other runners.	Wheelchair course is treated as an add-on then it could escape the normal registration processes	The wheelchair course is regarded as another course e.g. course 8 (wheelchair). Competitors will register for the event as normal either pre-entry or on the day. All wheelchair competitors requested to attend registration so that helper details and be recorded and briefed. (Organiser)
Other runners	Runners bump wheelchair, runners impolite to wheelchair user, congestion at control site.	All competitors warned that there is wheelchair course using the same controls, in Final Details and at Starts. All competitors to be reminded of BOF rules to be courteous to other runners. Planner to check that controls are sited to avoid congestion. Wheelchair user to be as quick as is reasonable to register the visit to the control (Planner, Controller & Organiser)
Competitors stray into unexpected areas	Missing competitor All above judged as low risk	Competitors notified of Out of Bounds Areas. Out of Bounds Areas marked on the map - transgression results in disqualification. Courses planned for age groups according to BOF rules and fairness assured by the controller. (Planner & Controller)