



Shaping a Berm



Shaping a Roller



Applying an 'all weather' top dressing of crushed limestone



Mission accomplished: BMX for all, with (foreground) edible planting scheme

BMX Highriders:  
Pumping up the  
style for young  
people with a  
range of abilities  
... ▶▶  
by Dr Nigel Oliver  
and Martin Moorman



Ravenscliffe's Garden Manager, a student, and Wakefield's Chain Brakers



"Grand Opening" Day



Session for children from a primary Special School



Session for children from a primary Special School

**R**avenscliffe High School and Sports College (Halifax) is a special school for young people aged 11-19 with a wide range of complex learning difficulties, physical disabilities and autistic spectrum disorder. Cycling has long been a passion of many teenagers but unfortunately, a lack of local facilities had meant that there was little chance of the school's pupils developing a similar passion - or even getting the opportunity to cycle at all.

In 2004 this all started to change when as part of a Comic Relief "Cycling Fun Day", Ravenscliffe was visited by Wheels For All, a national charity that aims to introduce people with all types of disability to cycling. The pupils enjoyed the day so much that staff were inspired to investigate ways of providing cycling at the school on a more permanent basis. We quickly realised that we had an opportunity to make a really positive difference to our pupils and the wider community.

## Freewheelers

Freewheelers was established as an adapted cycling programme based at Ravenscliffe High School, funded through the efforts of the Friends of Ravenscliffe charity. In 2006 it obtained funding of over £50,000 to enable it to expand the initial provision and Freewheelers now provides a range of cycling opportunities to people with special needs from all over West Yorkshire.

In addition to its on-site cycling facilities, the school acquired funding for a second fleet of adapted bikes two miles away at Spring Hall, a 400-metre track and athletics facility. At both locations, there is now a range of bikes available for Wheelchair users and a variety of hand-cranked bikes for people with lower-limb difficulties. Pupils have the opportunity to progress from four-wheel quad bikes to trikes, then to conventional two-wheel mountain bikes, and now (see below) BMX.

Freewheelers runs after-school clubs, cycle coaching courses, bi-monthly coached sessions at the Manchester Velodrome, and "Gifted and Talented" sessions with the Cycling Development Team at Calderdale MBC. Local schools and charities use the facilities at both Ravenscliffe School and Spring Hall free of charge, and there are timetabled slots for former pupils and adults with learning difficulties at both sites every week. Two primary special schools use the facilities to prepare their Year-6 leavers for life at Ravenscliffe (their secondary transfer school). We believe this has made the transition to Year 7 much smoother for these pupils, and parents have expressed the same feeling.

## Gaining Recognition

As the school and its cycling facilities have become better known, and as the general public have seen our 'funky' bikes in action, we have attracted

yet more interest and support. Many young adults are now taking up regular cycling sessions through the Freewheelers programme. At present, twelve special needs pupils from mainstream schools use our facilities, and several primary schools use our bikes and tracks for their cycling proficiency courses.

In summer 2010 the Youth Sport Trust and Sky sponsored "Gifted and Talented" cycling sessions for fifteen pupils, and in 2011 five of our staff achieved a British Cycling Level 2 Coaching Award. OFSTED graded Ravenscliffe and its cycling facilities "Outstanding" in 2008, and in February 2010 the Freewheelers programme won a Sky Sports National Achievement Award.

Pupils are achieving high levels of cycling skills. Gifted and Talented courses have even enabled us to identify a number of pupils who have the ability to progress into competitive cycling, and a significant number of children who cannot currently and may never ride two wheel bikes on their own are nevertheless confidently and competently cycling on tandem bicycles with adult help.

The sight of their friends enjoying themselves, acquiring skills and becoming more independent is encouraging more and more pupils to join in and start cycling. We believe this has led to a significantly fitter pupil population and it is well documented that participating in outdoor physical activity in natural settings plays an important role in positively influencing health and wellbeing into adulthood (1).

## Independent Travel Scheme

Perhaps most importantly, Freewheelers has helped our pupils become more independent. In 2006 we had just two competent two-wheel cyclists; since then we have taught

more than sixty young people to cycle independently on two wheel bikes. Off-site cycling is now part of our Key Stage 3 timetable, giving pupils in Years 8-11 the opportunity to develop travel skills as they journey with staff to Spring Hall via public transport. Twenty pupils now travel to and from school independently on public transport, where previously all our pupils had been provided with taxis.

Improving pupil independence is a key part of the work we do at Ravenscliffe, so we see this as a particularly important achievement - one which, by increasing confidence and motivation, even has a positive effect on pupil literacy and numeracy.

## BMX Highriders

Given the interest of youngsters in BMX, Ravenscliffe started investigations about facilities for less able young people, as an aspirational extension to Freewheelers. A search online for 'disability BMX' soon revealed that this would be a novel and highly unusual project. Local networking led to a number of links to other organisations.

The ABLE Project is an alternative form of educational provision for young people either disengaged or excluded from mainstream society. It specialises in land-based skills with a self-build ethos, primarily raising environmentally sustainable value-added fish for consumption. Those it works with are 'hooked' on fishing and also bikes, especially BMX, and it was alerted to the potential of cycling when young people started attending on their own BMX bikes. As a result a large area of the 34 acre outdoor education site in Wakefield was soon allocated for a self-build (able-bodied) BMX track.

Green Business Network (GBN) originally established ABLE in central Wakefield, with spin-offs in Rotherham and Todmorden. Following the success of these Kirklees Council offered a 10 acre landmark site in Heckmondwike, North Kirklees - in a prime location for cycling next to Spen Valley Greenway - to develop an enhanced 'ABLE2' scheme.

## Pilot Project

The Green Business Network designed a disability BMX pilot project to exemplify the very best in cost-effective partnership working, bringing





together groups from three local districts: Calderdale (Halifax), Kirklees (Huddersfield) and Wakefield. A funding bid soon attracted £8K from 'Awards For All'. Starting in Autumn 2010, students from ABE worked half a day every week with Casper Taylor of Wakefield's Chain Brakers to self-build an innovative Pump Track in the Ravenscliffe grounds.

## Design Principles / Measures of Success

The pilot BMX highriders project was an immediate success enjoyed avidly by teenage pupils with e.g. learning difficulties or Down's Syndrome.

## Pump Track!

BMX Riders do not pedal but build up strength and momentum to circle a low level track, making it much safer for novices or those less able.

The world's first Pump Track was built in late 2004. It was an L-shaped track at The Fix Bike Shop in Boulder, Colorado, USA. The second Pump Track appeared in the 2005 DVD 'Earthed 2'. It was in the garden of three times Australian BMX Champion Mick Hannah, who became the first ever World Pump Track Champion in 2009.

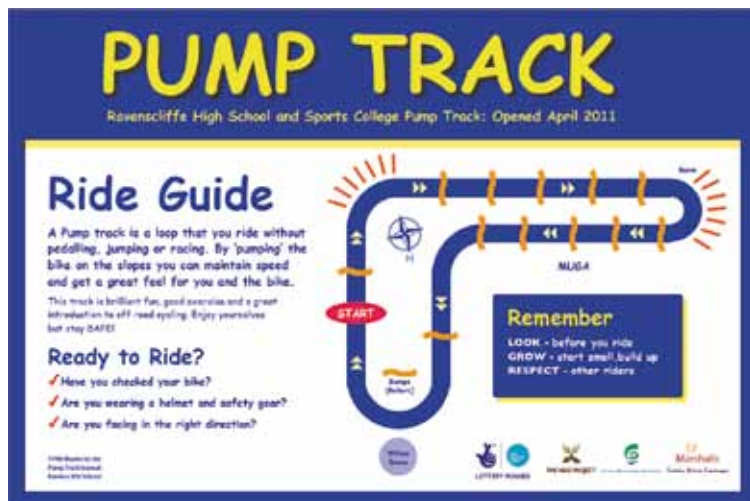
BMX riders all around the world are now building Pump Tracks. They fit almost anywhere and can be ridden by anyone. To find out more search online for, pump track"

The Ravenscliffe track is 55 metres long, 1.2 metres wide, used 14 tonnes of dirt and has 12 rollers (bumps). It now provides over 200m<sup>2</sup> (~2100ft<sup>2</sup>) dedicated to disability BMX. Shaping the track required 12 half days work.

## "Why does a Pump Track have to be just a dirt track?"

As befits an exemplar demonstration scheme, we designed the main berm (banked turn) at Ravenscliffe with an edible planting scheme. Our plants of choice were Wild Garlic and Common Bistort which will stabilise the berm and add to the School's sensory garden (which has a shady, wooded aspect), but mainly because they are edible. Bistort is eaten as a local speciality, Dock Pudding!

Local food is an essential part of ABE's different way of thinking - i.e. allocating space for growing food and edible plants as part of EVERY project, whatever the setting. This makes it an **incredible edible BMX track** (to find more about this approach, search online for our partners Incredible Edible Todmorden who are also developing an ABE fish farm).



10 tonnes of crushed rock sand (4mm to dust carboniferous limestone) were donated to the project free of charge for an all weather top dressing, a 'totally local' product in keeping with our guiding principles. Bulbs were native British origin from cultivated stock, to meet Flora Locale's code of practice.

There was keen interest in the project from Canada, London, Sussex and Europe's leading indoor urban sports centre, Adrenaline Alley. Another visitor was so impressed that they donated £9,000 for future work and Award-winning American rider/journalist/instructor Lee McCormack donated a free copy of his book 'Pump Track Nation'. The project has earned a deserved number 1 ranking in Google (search online for 'disabled bmx' or, disability bmx").

## The Future

The pilot BMX highriders project - to provide a track and bikes without any adaptation - was managed by the Green Business Network. We are now using the lessons learnt for the design of a larger 'all abilities' BMX pump track facility, a part of our new 10 acre site in Heckmondwike: ABE2 Kirklees. We are grateful to 'Sported' for providing mentor support during this exciting next stage of our pioneering disability BMX project. The pilot pump track remains in place at Ravenscliffe as a curriculum and community resource.

The success of Freewheelers and highriders is mostly down to the vision, hard work and dedication of a small team. Thanks to their passion, the dream of 2004 has become a reality, and over 300 people with additional needs in West Yorkshire are now cycling, learning to cycle and enjoying the stimulation of the outdoor learning environment every week. ■

## References

Reference (1): Pretty J, Angus C, Bain M, Barton J, Gladwell V, Hine R, Pilgrim S, Sandercock S and Sellens M. 2009. Nature, Childhood, Health and Life Pathways. Interdisciplinary Centre for Environment and Society Occasional Paper 2009-02. University of Essex, UK. <http://www.essex.ac.uk/ces/occasionalpapers/Nature%20Childhood%20and%20Health%20iCES%20Occ%20Paper%202009-2%20FINAL.pdf>

## Authors Notes



**Martin Moorman.** Martin completed his four year Honours Degree in Special Education in 1987 and has now taught in four Special Schools, latterly as Deputy, now Headteacher at Ravenscliffe High School

and Sports College in Halifax. During the course of his career he has realised that getting young people with special needs active should be a core focus within the curriculum of any Special School. The development of travel, mobility and especially cycling skills in young people with a wide range of learning difficulties has become a personal interest area.



**Dr Nigel Oliver.** Nigel graduated in Chemistry, spending time in entrepreneurial and enterprising settings in Oxford, North Carolina USA, London and Loughborough. Skills in

open innovation and partnership working acquired along the way, have led him into cutting edge community environmental and social enterprise projects back in his West Yorkshire roots, where he works on a freelance basis with a particular focus on the Landfill Communities Fund.

**Ravenscliffe School** is one of twelve outstanding special schools (Ofsted) and was UK's first 'Future Friendly' award winner (2009) in a national public vote, for its independent travel scheme. It developed from one of the UK's first open-air schools (1908) and its green setting now incorporates a triple award-winning working garden.