



## Health Route case-study



5K Health Routes in Bicester 2017-18, v.0.1,

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This case study relates to the built environment and community activation

## Purpose of the Health Routes

The Bicester Healthy New Town programme identified the need to tackle obesity and social isolation to create a healthier population. Oxfordshire Sport & Physical Activity (OxSPA), the County Sport Partnership for Oxon, reports that 23% of people are classed as 'inactive' and 38% of people don't get enough exercise. Inactivity is a factor in 40% of long term medical conditions, costing the UK £20billion a year and a cost of £14m directly to Oxfordshire Local Authorities.

The purpose of the project is to test the use of the built environment to nudge residents to increase their level of physical activity.

The NHS launched the *Couch to 5k* initiative, and more recently, the *Active 10* app to help get people more active; an effective way to help prevent the onset of long-term conditions. Walking / running is accessible as there is no cost to participation and suitable for a wide range of ages. It can be done alone or in groups and at any time of day and as such can meet the needs of a wide range of individuals. This project supports this by identifying safe walking/running routes close to homes and marking them to encourage participation: primarily this is done with a continuous NHS-blue line, but additional way-marking signage (pictured) assists with informing residents of the purpose of the blue-painted line.



The majority of routes are also suitable for cyclists, but some public rights of way used are prohibited: for such sections, cyclists simply have to dismount and push their bike along such pathways, or use an alternative route around those sections (which in some cases we have indicated on the route flyers).

Routes, where possible, pass through green-spaces so as to increase awareness of their locations and benefit, local amenities (including adventure playground areas, ponds and shops) as well as offering variety within the route for participants, and are a minimum of 5km in length. They are circular, so although we have marked a suggested START / FINISH point, and km update markers from there, it doesn't matter where a resident picks up the route, or indeed, which direction they choose to follow it. Although 5km in length, the update markers allow for easy distance measuring for those feeling that 5k is too much initially (and a number of pathway shortcuts allow for shortening of the route) they also provide an easy point-of-reference, and we have seen social media communications that "suggest we meet at the 3k mark"...

*"...I think the initiative should be encouraged. My daughter and I walked it last night and spent the time chatting away and spending quality time together."*

## **Key Stakeholders**

The project was developed and delivered by Cherwell District Council and involved consultation with residents associations, town councillors and local residents. Expert advice was provided by County Council highways officers regarding safety of the routes.

The three Health Routes are marked in existing residential areas of the town to encourage local people of all ages to use them for walking/running. The maps in Appendix A indicate their location.

## **Project Implementation**

### **Phase 1 - Planning**

An approximate area needs to be identified where the route is to be placed. Within this area, restrictions such as conservation or heritage status zones can be mapped, land ownership can be checked (potentially excluding some areas where gaining permission for the route would not be possible).

Specifications need to be confirmed, influenced by available funding. Specifically, this includes the length of the proposed route, and anything else that influences set points that route must pass by.

A number of route options would then be roughly mapped out using ArcWeb, an interactive mapping facility. It is noted that at this stage, routes may not adhere to target route length or restrictions placed on the project.

Using rough options produced as above, and with information of changes that need to be made (such as shortening / lengthening the route), a site visit is made to ascertain if better alternatives exist, such as appropriate cut-throughs. The suitability of the route options will be assessed, looking in particular at aspects of safety (to include traffic levels, presence of street-lighting and dropped-curbs at crossing points, pollution levels, and general feel of all pathways.)

A more informed and accurate route (or potentially a couple of options) is then produced which conforms to project specifications and any restrictions or other criteria. Expertise from the Strategic Intelligence and Insight Team (SIIT) and/or Legal Team may be sought at this stage.

If pedestrian counters are being used as a way of monitoring use of the route, and evaluating the project, they should be installed at this stage so as to gain some pre-data about the background use of the route.

### **Phase 2 - Consultation**

The route or route options are then consulted on with public. This can take the form of a Survey Monkey questionnaire, promoted through the Council's social media accounts and website, with a number of public-facing sessions held at a local community centre/hub near to the proposed route. The consultation should be additionally advertised via laminated posters placed along the proposed route. Further, if any events are taking place in the area of the proposed route within the

consultation timescale, arrangements are made for the Council to have an events stand there, or roaming staff to encourage consultation feedback on proposed plans.

The usual procedure for consultation is then followed (if feedback highlights the need for route alterations, felt to be significant, this is communicated back to those who have left contact details and consent to be further consulted with, and the option to start the consultation process again would be considered).

Once a route has been confirmed via the above process, Oxfordshire County Council (OCC) is invited to attend an on-site safety audit where the highways officer stipulates the positioning of the line on each section of footpath, as well as the most appropriate point for each crossing.

The town council and any other interested parties (e.g. owners of land along the route) are also invited to attend.

Linemarker paint is used to indicate the positioning of the line, which also helps as a further indicator to local residents (experience has shown that this resulted in further feedback/comments, which proved worthwhile tackling concerns raised ahead of the line actually being installed).

### **Phase 3 - Implementation**

Further line marking is undertaken to help the contractors on the day and ensure that positioning is clear.



The three routes in Bicester were initially installed using a spray painting method from a hydraulic machine. The lines have not lasted as anticipated, and are already in need of maintenance, having been installed under a year ago. Therefore, we recently installed a test section using thermoplastic molten paint, similar to that used on roads. This looks to be lasting significantly better, however does present a number of additional hurdles to overcome (pedestrian management around the heated vats of paint, both on the lorry and portable machine, access difficulties for the lorry which needs to remain close to the area to be painted, lettering needs to be done freehand, or stencils produced in metal at higher cost, etc.)

It is therefore recommended that if the route is to be intended as a permanent installation, thermoplastic road quality paint be used. The higher cost and increased difficulties of installation are more than outweighed by reduced maintenance costs and loss of the resource due to line-fading.

Aluminium signage is added at strategic points along the route to assist with route location, but mainly to help promote the line (the sign carries basic information such that the route is 5k in length and circular – it could also have a link to a website, or additional useful information).

An important part of installation, aside from the actual marking of the route is communication. It is key that on the day of installation, information is provided to local residents: previously this was done via the Council's social media accounts, press release on the website, laminated posters and

signage erected along the route, and flyers handed out by the council officer accompanying the line-painting contractor.

**Community activation** is then required to maintain use and enthusiasm of the resource; in Bicester this included an official launch and walk of one of the Health Routes linked to a local 'Fun Day', holding business networking walks, walk leaders taking Health Walks along the routes and ongoing promotion via social media. It could also include events (treasure hunt along the route, etc.), installation of linked equipment such as a trim-trail with outdoor gym equipment or digital loggers to allow users to tap-in (e.g. at the START point) and tap-out, providing their time between those points. Installation of permanent information boards at the start of each of the routes and leaflet holders provide another opportunity to attract public attention.

### Project Timescales

**The planning stage** can be lengthy if done correctly but it greatly helps future stages. If route options are well founded (and all the many alternatives that were dismissed have reasoning to support the decision) it is far easier to undertake the consultation process, knowing which changes might be possible, and which suggestions controvence an element of safety or other constraint to the project. For a route of 5km, running through a mix of residential and green open space areas such as in this project, at least 10 days should be assigned for planning, on-site assessing, mapping and potentially the installation of any monitoring equipment as described above. It can be beneficial for the days spent 'on-site' (around the proposed route options) to be spread out, in order to take into account different days of the week which may result in issues being highlightes, for example 'bin day' blocking up certain routes, localised flooding making a path impassible... Depending on any deadline for project delivery, it is perhaps useful for the 10 days to be spread over at least a 6-week period.

**Public and Stakeholder Consultation** should be a welcomed test of the planned route options, and a minimum of a month should be allowed for responses to be submitted. As outlined above, this is likely to allow the opportunity for consultation at events already arranged, as well as some specific sessions in a convenient place in the area where the route is planned. This stage can also take time if responses are sought by residents / stakeholders to any concerns raised: between 4 and 8 days of officer time over a period of a month.

**On-site Implementation** Finally, when the routing is determined, and have been marked out roughly with linemarker spray paint, a further circa. 4 days should be allowed for implementation, with at least one full day for surface preparation ahead of contractors coming to site to mark the route (this will involve removal of excess gravel, moss, biomass, etc.) and a minimum of a day (likely to run to two with the marking of the km points, start and finish lines) for route marking, plus a further day for installation of suplimentary signage, leaflet dispensors and the like. These days should be consecutive (weather permitting) so as to ensure the resource is



Please avoid walking on the blue line, apologies for any inconvenience caused.

complete for residents as soon as possible once started.

Line marking requires reasonable weather conditions, and certainly no wet surfaces. Therefore, summer provides the highest likelihood for ideal conditions. A project would therefore need to start in April/May (or earlier) to coincide with timescales for route marking. The summer is also the busiest time for line-painting contractors so do seek quotes and commission at least a couple of months before the desired delivery date (which of course will then be weather dependant).

## Resources

Funding allocated by NHS England to deliver the project amounted to £50,000. Development and delivery of the project required two days/week of a project officer's time over a period of three months. The overall cost per Health Route (excluding production of information boards) using spray paint amounted to approximately £14,000, using the thermoplastic molten paint it would be approximately £17,000.

These costs covered the cost of consultation but exclude project resources for the public launch of a Health Route or communications time to promote the lines and respond to queries through social media.

## Evaluation

Analysis and collation of available data involved:

- pedestrian counts from a number of beam-break monitors around the Health Routes which provide hourly data and allow for analysis comparing weekends to weekdays, and assessment of impact from, for example, a specific event taking place along the route.
- Qualitative data from a range of social media including comments indicating the benefits of the route on health and wellbeing and how the routes have been adopted as part of a healthy lifestyle (and indeed, encouraged this in the first place).

## Impact – social media, footfall and launch event

**The reach of FaceBook posts** about the installation of the routes and promotion following this is now well in excess of 50,000 people. One post (pictured) about the completion of the Bicester West route was shared 15 times, reaching more than 17,000 people (greater than any other post on the @HealthyBicester page, including paid-for 'boosted' posts), and received 140 likes in the first day, and over 60 comments.

The project has significantly increased the number of followers of the @HealthyBicester social media accounts, allowing us to easily



engage with more residents on other Healthy New Town programme elements.

Qualitative evidence gathered from social media suggests that the project is having a significant impact on a large number of local residents.

One such resident, S, has been a great advocate for the project. Following the installation of the initial route in May around Langford Village, she posted on Facebook:

*“Really wish you’d do one around Glory Farm / Launton Meadows too! Would be really good if each housing estate had one...”*

Once all three routes were marked out, she responded to a post on the @HealthyBicester page:

*“We love them! I have been using them as part of my new daily/weekly fitness routine over the last 9 weeks and I have lost 1 stone 4.8lb so I will use them till they are worn out! They are a fab idea! I’ve got friends all over the country and there are many of my friends jealous their towns don’t have them!”*

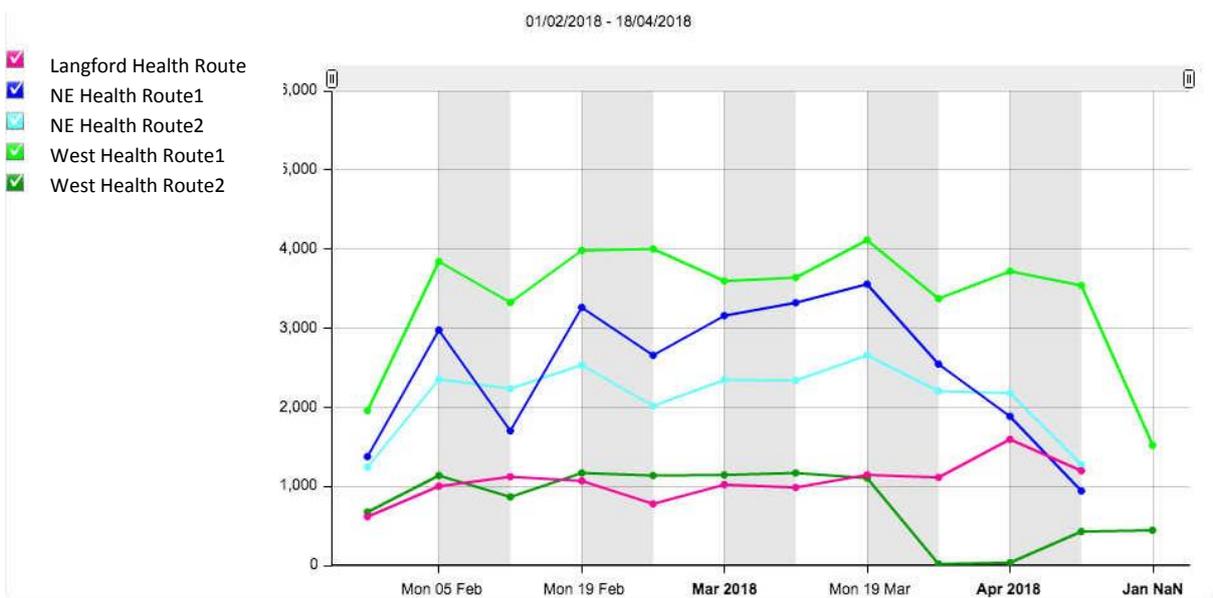
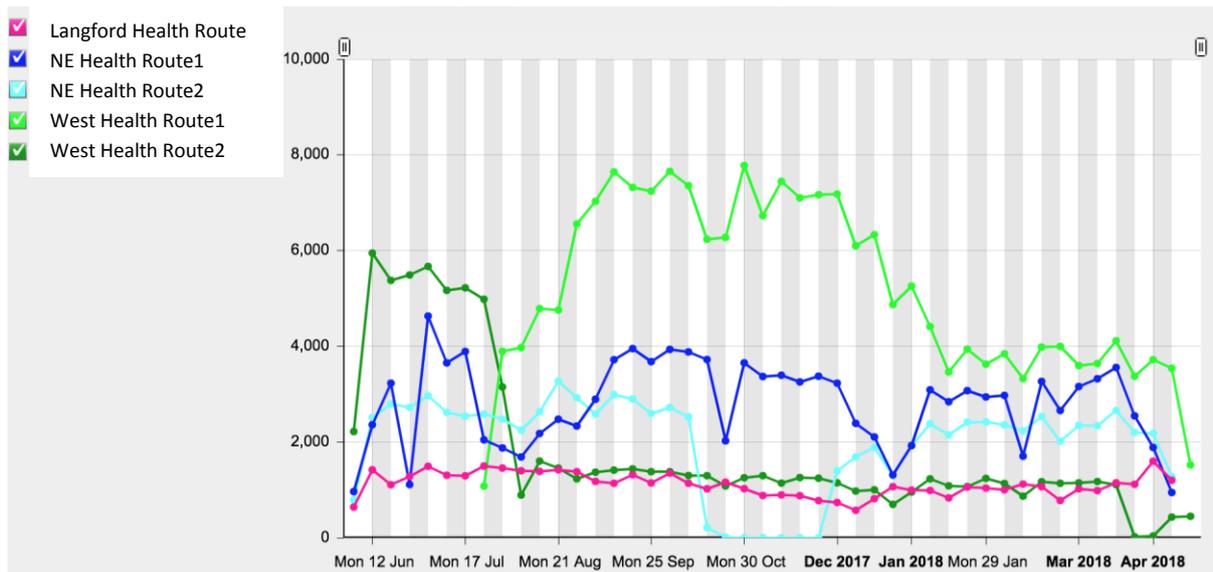
## Footfall



One tool used to monitor usage of the routes is a number of beam-break electronic ‘pedestrian counters’ which are installed around the routes. For the latter two routes, Bicester West and Bicester North-East, these were installed a couple of months ahead of the line being in place, to allow us to have an idea of the background pedestrian traffic along the routes, and to be able to measure the increase once the route had been marked out.

**For the Bicester West route** a marked difference in average daily footfall was noted from the point at which the Health Route was installed with a daily average of **765, representing an overall 27% increase** in footfall.

It is further noted that there is significant difference in total daily counts between weekends and weekdays, the latter tending to be significantly lower. This suggests that a portion of the traffic passing this counter is linked with Bure Primary School, which was confirmed by data which show a significant drop in footfall during the school holidays (see second graph). We have worked with schools to encourage parents to make use of the route after they have dropped off, or picked up children from school, again to increase social interaction with fellow parents whilst exercising).



There is a drop in number of users in Bure park (West Health Route), between 19/03-02/04.

Bure Park		
19/03	26/03	02/04
4,113	3,375	3,720

There is a significant drop in both counters on the NE Health Route: number of users dropped to half.

Southwold		
19/03	26/03	02/04
3,556	2,546	1,887

In contrast, Langford Health Route experienced an increase during this period.

Peregrine Way		
19/03	26/03	02/04
1,148	1,116	1,597

West Health Route drops during Easter week then increases by 02/04 whilst NE Health Route keeps declining. Unfortunately, the 2<sup>nd</sup> counter on the West route was vandalised, and didn't record during the holiday. The Langford Health Route significantly increased which suggests its mostly used for leisure, and not commuting (to school / work).

**On the Langford Health Route**, footfall has been very consistent: a daily average footfall of 161 per day with an increase at weekends which shows that the route is predominantly used for leisure purposes rather than by commuters.

**On the North-East route**, we arranged an official launch, tagged onto an existing 'Sunday Funday' event. As with the Bicester West route, weekends tend to receive far lower pedestrian traffic passing the Southwold School site. The data for the dark-blue line clearly shows a 5 / 2 split between weekdays (average of 432) and weekends (average of 274). However, on Sunday 17<sup>th</sup> September, when we ran the launch event, over 400 counts were recorded, akin to a weekday average.

Overall there has not been a significant increase in footfall on the North East route; the daily average footfall is 410. This may be due to the local demographics, the North East of Bicester is one of the more deprived communities in the town and local residents may experience higher barriers to becoming active. Alternatively, or in addition, it does not have an attractive green space like Bure Park on the North West route which would encourage people from other parts of Bicester to come and walk the route.



One of the limitations of these data is that we are only able to measure footfall rather than number of individuals using the route. The digitisation of the routes will provide some more data, with a unique identifier to a particular resident (via their registered user account) but not all users will wish to record their use of the routes on their mobile phone.

### **Unintended consequences.**

Although the Health Routes aimed to increase physical activity, qualitative evidence suggests that they are also reducing social isolation. People on the routes say hello to others as it is likely they too are 'on the blue line', promoting a sense of community. In addition parents have reported that they have used going for a walk or run along the Health Routes as an opportunity to chat to their children and have some family time being active.

One negative impact was criticism from residents who did not like a blue line painted outside their house. We have significantly improved our approach to public consultation to try to alert local residents to the proposed installation of the blue line but some residents will continue to be opposed to them. Resources need to be allocated so that residents can receive a rapid response when they complain or make negative comments on social media. Fortunately, by the time that the

third health route was installed a body of residents who support the 'blue lines' were very effective in countering criticism on social media.

### Barriers & Challenges encountered

- **Vandalism:-** One of the pedestrian counters was stolen from its monitoring point in Bure Park Nature Reserve, and attempts made to others (see photograph). A number of the waymarking signs have been damaged or forcibly removed.



- **Safety concerns:-** It is clear that some residents have reservations about using the route at dusk / in the evenings due to some of the alleyways and park areas feeling unsafe. We initially consulted with Thames Valley Police at the route planning stage, who informed us that the greater the traffic along a pathway, the less the crime levels, and to aid the feeling of safety, PCSO's would patrol the route when possible so as to have a greater presence.

All of the routes (with the exception of a stretch along Jubilee Lake in Langford Village, where an alternative route has been indicated) are lit by streetlamps.

We encourage residents to join up with friends, family, neighbours, both to increase social interaction and use of the routes, and also to help reduce any safety risk.

- **Line removal:-** Essential works, primarily gas pipeline replacement by SSE as the District Network Operator (DNO) have resulted in extensive patching in Bicester. We are currently working with the DNO to ensure that the Health Route marking is reinstated following completion of such works, and in the meanwhile, are installing additional signage to help maintain the resource during such works.



- **Line fading:-** The painting method used initially was expected to be a temporary marking method, anticipated to last between 12 and 24 months without significant loss of the marking integrity, however, fading and loss of the painted line has occurred faster than this. The Langford route, installed in May 2017 is looking patchy in places, and concerns over the loss of the resource have been voiced by local residents.



We are now working with the contractor, Wilson & Scott (Highways) Ltd, to look into more permanent painting methods (such as thermoplastic-tape and road-highway quality paints) in order to ensure longevity of the resource. On the NE route, we now have two sections painted up with an alternative paint as a test of the longevity of this solution, and are seeking funding to proceed with the re-

installation of all routes now that they have received wide acceptance and are achieving positive health impacts.

- **Leaves on the line(!):-** This is a seasonal issue, however, in places over autumn the line became completely covered. Following consultation with road-sweeping crews, the Health Routes were prioritised for small mechanical sweepers to ensure that the resource was maintained through the autumn months. Of course, with heavy snowfall over the winter 2017, pathways were completely covered for a period of time.



### Future plans

As well as to remark the routes with a more permanent paint, the Healthy New Town programme has recently secured additional funding to:

- Work with a company who are developing an app which would allow us to install geo-located signage along the routes to allow users to 'log-on' to the Health Route (at any of the km points, so that they can start the circular route at a point nearest to their home), allowing the app to track their progress between scans of QR codes and provide times, etc. Individual users would be located either via multilateration of radio signals between cell towers (Bicester has several which allows for a good degree of accuracy) or simply via GPS.
  - The secured funding will also allow us to install two human-powered pieces of outdoor gym equipment to allow mobile phone charging and Bluetooth capability to record effort on the equipment.
- Produce a guidance document for developers who may wish to replicate the project as a good use of the built environment to encourage health benefits.
- Test two shorter 'Discovery Walks' in Bicester's town centre and commercial areas, designed as a quick lunch-time route for shoppers and local businesses to make use of.

## Return on Investment

### Costs include:

Route audit sign-off with county council highways engineer

Line painting

Publicity & signage

Route monitoring (e.g. with pedestrian counters)

Staff time (Manager / Project Officer) for circa 22 days per route

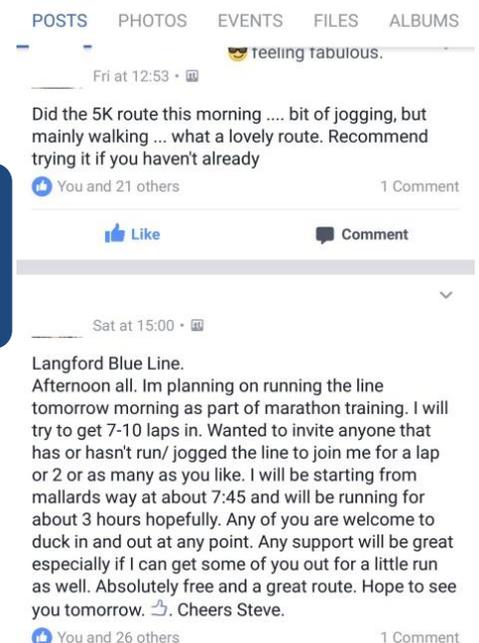
### Benefits:

**Increase in physical activity/footfall**

The 5km circular Health Route project element works with the Built Environment, enhancing existing infrastructure to nudge local residents to make walking part of daily

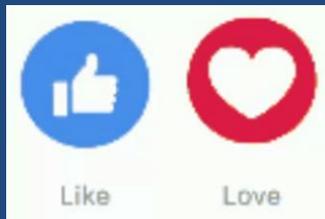
**Increase in social cohesion**

Numerous tweets and posts to local Facebook groups have welcomed fellow residents to join in activities, such as shown in the screen-shot to the right.



**Increase in awareness of the  
Healthy Town Programme via the  
Healthy Bicester Facebook page**

The page now has over 1,400 followers, with updates about the Health Routes consistently being amongst the most popular, 'liked' and commented-on posts. Our most recent update regarding the plans for repainting of the routes to maintain the resource was posted a fortnight ago, and continues to receive positive attention, with over 120 people having liked or loved it, 10 shares to other groups, and lots of discussion.



**Potential cost saving through  
preventative healthcare**

The project represents a preventative healthcare initiative, with potential significant cost savings to the Clinical Commissioning Group / NHS through the reduction in long-term medical conditions needing treatment (such as those linked to obesity: Type II diabetes where obesity is believed to account for 80-85% of the risk. Over the next 20 years, the number of obese adults in the country is forecast to soar to 26 million, leading to more than a million extra cases of type II diabetes, heart disease and cancer).

## Conclusions

The installation of the three Health Routes has enabled us to learn during the project and improve our processes. Key learnings include:

- The importance of social media as a mechanism for engaging local residents and promoting the line
- Creating a painted line on footpaths effectively acts as a physical nudge to encourage people to get active – it gives people the ‘excuse’ for going for a walk (if they don’t own a dog)
- The circular nature of the routes means that residents from different parts of the town have been encouraged to explore other neighbourhoods without fear of getting lost
- The ‘blue lines’ have been a talking point within the town – effectively increasing awareness of the Healthy Bicester programme and showing that it is making a ‘difference’
- Health route users have also used them as an opportunity to connect with each other, agreeing to meet friends to walk the route or simply saying hello to other people following the blue line.



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**Appendix A: Flyers for Bicester's Health Routes, showing locations**

# 5K HEALTH ROUTE

# Try Langford health route



- 5k marked route
- Alternative lit route suitable for cycling

The blue line represents a circular **5K Health Route**. Complete the full loop and you will have undertaken approx. 7,000 steps – a good way towards the recommended daily exercise!

The Health Routes, funded by NHS England, are part of the **Bicester Healthy New Town Programme**. A key aim of the programme is to increase physical activity amongst residents, providing access to walking routes within your community.

5K feels too far? Start small and aim to walk 1k. Ten minutes of brisk walking can really help give you a boost. Discover just how easy it can be to adopt and enjoy a healthier lifestyle **and happier you**.

For more information, please email:  
[healthynewtown@cherwell-dc.gov.uk](mailto:healthynewtown@cherwell-dc.gov.uk)  
follow **Healthy Bicester** on    or call **01295 221685**



**5K**  
HEALTH  
ROUTE

# Try Bicester North-East health route



The blue line represents a circular **5K Health Route**. Complete the full loop and you will have undertaken approx. 7,000 steps – a good way towards the recommended daily exercise!

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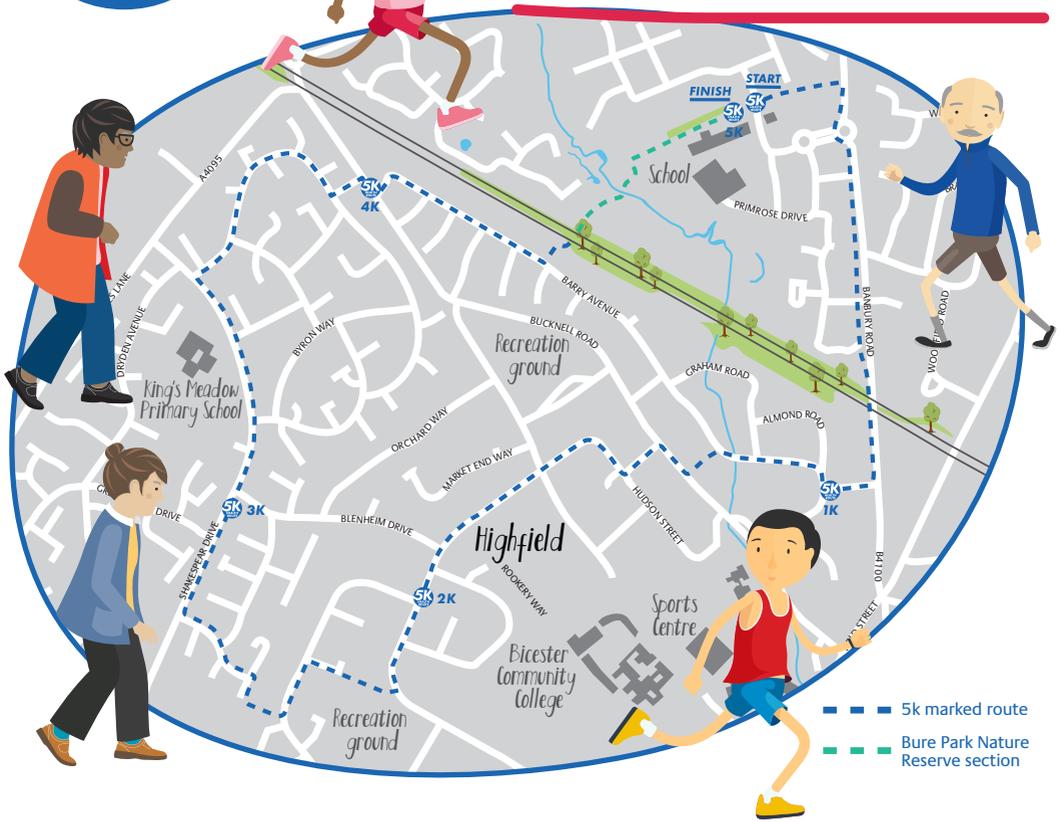
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# Try Bicester West health route



The blue line represents a circular **5K Health Route**. Complete the full loop and you will have undertaken approx. 7,000 steps – a good way towards the recommended daily exercise!

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