

# **Totnes to Littlehempston**

## **Proposed Cycle Route Feasibility Study**

### **Route Analysis**

*(Refers to the Route Options Described in Totnes to Littlehempston  
Proposed Cycle Route Comparison of Possible Alternative Options November  
2011)*

Devon County Council  
February 2012

## Introduction

The purpose of this report is to expand on the preliminary study of possible alternative options for a cycle route from Totnes to Littlehempston.

## Option 1 Bridgetown Hill and Bourton Lane

### Description

The route starts on the A385 which is the main route between Totnes and Torbay before turning onto Bourton Lane which starts as a well surfaced housing estate road, becomes a country lane then deteriorates into a rough track with potholes, streams cut by water erosion, concrete patched areas and rough bedrock. In some places the track surface is the underlying bedrock. At present a 4wd, quad bike, mountain bike or light walking boots are required to negotiate the route

Gradients are long and steep with little respite from climbing. Width south of the crest are 3m plus some verge space for passing North of the crest width is 2.5m tight between hedges with passing only possible in gateways.

The route crosses the busy A381 where the speed limit is 60mph and visibility is severely substandard when looking right when travelling northwards.

### Works required.

A new path would require construction from Lower Bourton to Combe Cottage. To the south of the highest point considerable existing erosion indicates that drainage is a problem and a sealed path would be required for longevity. The path would be shared with agricultural traffic and will therefore need to be constructed at an appropriate standard for this.

A visibility splay or traffic signals would be required to make a safe crossing of the A381. Signals may be ruled out as incompatible with the low number of crossing movements which could be expected. An alternative would be to relocate the crossing location to the south at the first point of acceptable visibility. This would require lengths of new connecting path on both sides of the A381.

### Land

The route is essentially public highway and no land acquisition would be required if implementing a traffic light crossing of the A381. If the alternative safety measure of constructing a visibility splay at Hemsbrook Farm was taken land would be required and it is possible that a farm outbuilding would be affected. Agricultural land would be required to relocate the crossing point.

### Environmental Effects

Minimal due to the extensive use of existing track.

### Directness

In terms of “crow’s flight”, directness is reasonable however the route connects to the residential Bridgetown area which is across the river from schools, colleges, hospital, railway, and town centre. Not linked to existing cycleway network.

### Attractiveness

The majority of the route would have low levels of motor traffic, has pleasant views and a rural environment. The gradients and quantity of climbing make the route quite unattractive and whilst cyclists benefit from freewheeling downhill the constant braking required on long sections is not pleasant. For pedestrians the steepness is such as to make walking arduous and falls outside the gradients that the disabled would be able to cope with. There is a little on-road parking for potential path users.

### Safety

The gradients, narrowness of some sections and sharing with motorised, (mainly farm), traffic restricts safe use to more competent cyclists. Safety of the overall route is conditional on providing a safe crossing of the A381.

### Unintended Consequences

At present this option follows part of the existing John Musgrave Heritage Trail. “Overimprovement” would reduce the attractiveness of this rural trail to hikers and mountain bikers, the latter especially enjoying a moderately challenging ride on the existing rough and ready surface.

Improvement would increase the speed of motorised traffic which currently has to crawl over bumps and potholes. Improvement of the junction at the A381 crossing would open up the lane to through traffic to Bridgetown.

## **Option 2 A381 roadside and new offroad rural path**

### Description

Following the west side of the A381 the route then descends through Littlehempston Wood, onto some grazing land and crosses under the railway line using an existing footpath alongside the river. Part of the route would be on highway verge and part in adjacent land separated by existing hedge,

### Works Required

A new path will need to be constructed over the entire length. About 300m north of the A385/A381 roundabout the River Dart passes close to the A381 leaving little room to construct a path. A solution will require modification of an existing riverside structure. Path construction is then straightforward, either

in verge, green-field or woodland. Some steps on the existing woodland path will need bypassing. The low-lying final section of the path is liable to flooding, possible measures to mitigate this will depend on Environment Agency consent.

### Land

Path constructed on the verge will be on highway land. A narrow verge fronting 1 The Bourtons is insufficient for the path and acquisition of some of their garden or realignment of the A381 will be required. From the landfill area onwards the path will need to be in the adjacent land, initially the tip then agricultural land and woodland

### Environmental Effects

Cutting back hedges on the roadside and some hedge removal will be necessary. Where the path crosses open agricultural land the effect on habitat will be minimal and may be mitigated by landscaping and screening if necessary.

### Directness

In terms of “crow’s flight”, directness is reasonable, however the route is not connected to Totnes’ centre and is across the river from schools, colleges, hospital, railway and town centre shops. Not linked to existing cycleway network.

### Attractiveness

The section alongside the A381 is not an attractive proposition as a short recreational ride or walk. The gradient within the woodland section is excessively steep for disabled users. There may be periods when the path cannot be used due to flooding. There is no convenient car parking nearby for potential path users.

### Safety

Safety rating of the route itself is acceptable for all groups with the proviso that younger children would need careful supervision on the section in the A381 verge. There is however no traffic free access to the route from the Totnes end.

## **Option 2A A381 roadside and new offroad rural path**

### Description

Similar to 2. Following the west side of the A381 the route turns off the road at the sewage treatment works than follows the eastern side of the river and rail

line on grazing land. It crosses under the railway line using an existing footpath alongside the river.

### Works Required

A new path will need to be constructed over the entire length. About 300m north of the A385/A381 roundabout the River Dart passes close to the A381 leaving little room to construct a path. A solution will require modification of an existing riverside structure. Path construction is then straightforward, either in verge, green-field

Much of the route is low-lying and may be liable to flooding, possible measures to mitigate this will depend on Environment Agency consent.

### Land

Path constructed on the verge will be on highway land. A strip of agricultural land will need to be acquired alongside the river/rail line. Severance issues if stock are prevented from getting to water.

### Environmental Effects

Cutting back hedges on the roadside and some hedge removal will be necessary. Where the path crosses open agricultural land the effect on habitat will be minimal and may be mitigated by landscaping and screening if necessary, however one section on low lying land is shown as having numerous drainage ditches and may have some habitat value

### Directness

In terms of "crow's flight", directness is reasonable however the route is not connected to Totnes' centre and is across the river from schools, colleges, hospital, railway and town centre shops.

### Attractiveness

The section alongside the A381 is not an attractive proposition as a short recreational ride or walk, though this length is reduced over option 2. Once away from the main road the route skirts a sewage treatment works and from then on is a pleasant rural path on a level route, though following the main railway line There may be periods when the path cannot be used due to flooding. There is no convenient car parking nearby for potential path users.

### Safety

Safety rating of the route itself is acceptable for all groups with the proviso that younger children would need careful supervision on the section in the A381 verge. There is however no traffic free access to the route from the Totnes end.

### **Option 3, Existing South Devon Railway Bridge and existing lanes**

#### Description

The route branches off the main cyclepath through the town which goes towards Dartington to the north and Sharpham to the south. Using the existing, (currently gated), bridge across the River Dart which serves the South Devon Railway Station and Rare Breeds Centre it follows a field boundary to join an existing lane currently agricultural access and access to SWW pumping stations. This crosses the over the railway line and continues past the SWW water treatment works to rejoin the “highway” lane to Littlehempston. The lane has limited traffic, serving only SWW, farms and a handful of residential properties. The Private track is in fair condition but some potholes and central grass/mossy strip. Both are single track between hedges. The gradients are moderate

#### Works required.

A new path would require construction on the east side of the Dart between the bridge and existing lane. Some pothole repairs and resurfacing of the SWW and highway lanes would be desirable. There is scope for a section of new off-road path parallel to the steeper uphill section of the SWW track. Accommodation works will be required to increase security of the station and rare breeds farm.

#### Land

Land would need to be acquired for the new path works and agreements for the use of the footbridge and SWW accesses

#### Environmental Effects

Affected land is open grazing and the effect on habitat will be minimal and may be mitigated by landscaping and screening if necessary.

#### Directness

The route is direct and is well connected to the existing cycle network in Totnes, schools, colleges, hospital, railway and town centre shops.

#### Attractiveness

The most attractive aspects of this route are the low journey time, moderate gradients and total “Climb”, good connection to the Totnes cycleway network and significant origins and destinations. Less attractive is the on-road nature of the route, albeit lightly trafficked. The route is therefore less likely to attract short distance leisure walkers/ cyclists family groups with young children and disabled. It makes most sense in the context of the overall long distance route. Pay and display parking is available near the start in Totnes.

## Safety

Safety rating of the route itself is acceptable for all groups with the proviso that younger children would need careful supervision on the section on existing lanes towards Littlehempston.

## Security

At present the footbridge is locked when the Railway and Rare breeds Centre are closed and there are concerns over their security if the path is open 24/7. For this reason it will need to be considered how the path is routed and additional security measures, fencing, cctv may be required. There is also the issue of security of Railtrack's main line which could be accessed from the SDR. Security fencing would require upgrading to steel palisade type.

## **Option 4, 4a, 4b, West Bank of the River Dart and New Bridge over River Dart and South Devon Railway Bridge**

### Description

These are grouped together as share a common route until the River Dart crossing.

The routes leave Totnes using the existing riverside path along the west side of the Dart then it joins the driveway into the Dartington College property, a slight climb then turn off to follow an existing permissive path which extends to Staverton through pasture alongside the Dart.

4, 4a, and 4b diverge at various potential crossings of the Dart. The final selection of a 4"x" route will depend on the viability of bridge options here and also on the possibility of creating a path of acceptable gradient to climb out of the Dart Valley

### Works Required

Sealing the existing Totnes riverside path.

A new path between the Dartington Drive and the river/railway crossing.

A bridge over the River Dart and South Devon Railway.

Depending on the preferred "4" option an oblique or zig zag path climbing from the river to join the existing highway or SWW access lane.

### Land

Land will be required on west and east sides of the River Dart.

## Environmental Effects

Adverse ecological effects will be minimal on the route of the riverside section through the pasture on the west side of the Dart. If new path is constructed on the eastern side an area of woodland will be affected.

## Directness

The three route variations are reasonably direct and well connected to the existing cycle network in Totnes, schools, colleges, hospital, railway and town centre shops, however once across the River Dart users have a severe climb to overcome to get out of the valley.

## Attractiveness

The route alongside the river is already a permissive path well used by walkers and is very pleasant. It is unlikely that significant numbers would use the new river bridge because of the steepness on the eastern side, preferring to continue on the level route towards Staverton. If it was possible to create a new woodland walk with gentler gradients some would make use of it. A surfaced riverside path would be accessible to disabled users however they are unlikely to want to climb the hill or use the narrow lanes to travel on to Littlehempston. Pay and display parking is available near the start in Totnes.

## Safety

The safety of the “4” routes is acceptable for all groups with the proviso that younger children would need careful supervision on Dartington driveway section. Those with smaller children may only wish to use the traffic free section of the route as an “out and back” ride so might turn back at the river bridge.

## Unintended Consequences

The creation of a new hard surfaced path might be considered a detrimental to the valley and there could be opposition from current users who are happy with the existing walk through the meadows.

By encouraging cyclists into the valley it is possible that a proportion may be tempted to trespass, continuing along the riverside permissive footpath rather than crossing the bridge.

## **Option 4c, Through Dartington Campus**

### Description

This alternative is similar to the other “4s” except for a detour into the buildings of the College

General comments are as for 4, 4a, 4b except that attractiveness is reduced because of extra climbing, loss of the attractive walk along the river and there may be security issues in encouraging the public onto the campus. Usability by the disabled is reduced.

### Safety

The extended use of the vehicular drive into the Dartington campus potentially decreases the safety of this option, (or at least the perception of safety to users), compared to the other “4s”

### Unintended Consequence

Cyclists and walkers will continue to use the existing unimproved riverside route to avoid the climbing detour through the campus.

## **Option 5, Huxhams Cross and Staverton Bridge**

### Description

The southern part of the route follows the established popular off-road route through the Dartington Hall Craft centre and on to Huxhams Cross where it joins the highway. The route crosses the width restricted Staverton Bridge and continues to Littlehempston on a route shared with significant motorised traffic apart from a deviation onto a less well used narrow lane which requires a climb of moderate steepness travelling in either direction.

### Works Required

The entire route requires only direction signing, (and some warning of the presence of cyclists) to be operational). At present much of the riverside and Dartington route is unbound crushed stone and would benefit from being improved with a sealed surface.

### Land

No land would be required

### Environmental Effects

Minimal ecological effects, sealing the path may require some tree root protection measures.

### Directness

The route is very indirect in terms of travel between Totnes and Littlehempston but may not be badly connected depending on the final long distance route northwards. It would bring long distance path users past

Dartington Craft Centre's cafes joining the existing cycle network into Totnes, to schools, colleges, hospital, railway and town centre shops.

#### Attractiveness

The attractiveness of the existing off road section is evident by the number of current users. Once the route joins the highway the picture changes and only the confident, predominantly adult cyclists are likely to continue and probably few of those to Littlehempston unless to visit the pub. For the reverse journey the size of Littlehempston is such that there is no prospect that significant non motorized traffic would originate from there. Leisure walkers destined for Staverton have a more pleasant route along the west bank of the River Dart and the creation of the Option 5 route is unlikely to have any effect on the overall number of path users

#### Safety

The section of this route between Totnes and Huxhams Cross, which is existing offroad path is safe to use by all classes of ability. Once the route goes on-road safe use is limited to competent cyclist and walkers are unlikely to proceed if walking for pleasure.

## **Option Comparisons**

**Option 1.** Will generate little leisure use above that at present. Some present users may be deterred by its improvement and potential speed increase of local farm traffic. The poor condition of the existing track would require the construction of a sealed road over most of its length. This option doesn't offer much to the long distance path user who would likely prefer riding along the A381 to avoid the hill or might choose the existing Dartington path.

Although the route will form part of a longer strategic route its construction is unlikely to be good value for money due to its lack of attractiveness as a route for short locals journeys. The demographic of Littlehempston is such that only a small minority (of an already small number of local residents) are likely to use the route and it has little to attract leisure walkers or cyclists who would be put off by the steep hills.

**Options 2, 2a.** Leisure use is feasible particularly the flatter 2a option which has potential for disabled use. Balanced against this is the poor connection of the Totnes end. Major construction works to provide a path squeezed between the A381 and River Dart and a substantial length of new path required. Medium cost must be balanced with the likely low level of use

**Option 3.** This is the most direct route with some leisure potential on the section of new off-road path and of opportunities to watch steam trains. Option to route along existing track to reduce the length of new path required. It is likely that this option would be strenuously opposed by the South Devon Railway. Low cost and medium benefit.

**Options 4. 4a. 4b.** Start following an established and well used path/cycle path and continue on a popular level riverside permissive path. The necessary bridge crossing the Dart and South Devon railway will be expensive and path users will be confronted by a steep climb out of the Dart Valley which will be a barrier to many. Those pleasure/leisure users without a good reason to go to Littlehempston are likely to continue on the river path towards Staverton. Whilst the improvement of the riverside path might be good value for money the high cost of bridging river and railway is unlikely to be justified by a high level of use.

**Option 4c.** As other "4s" except that the route climbs up for a loop around the Dartington College buildings instead of improving the riverside path is. This has little merit as those wishing to visit Dartington can already do so and this alternative adds to the amount of climbing unnecessarily.

**Option 5.** As a route to Littlehempston this option is of questionable value. Apart from direction signing it is fully "operational" at present and desire to use it could be assessed by the level of existing use. As a section of the overall route between Newton Abbot and Totnes it makes more sense, due to the

existing off road section to Huxhams Cross. However riding/walking from Huxhams Cross to Littlehemston involves a stretch of busy road before taking a quiet lane, (unfortunately over a hill). The suppressed demand to cycle to and from Littlehempton from here will be low due to the low population of the village whose only slight attraction is the pub. By far the cheapest option but adds little to a route already capable of being ridden.

## **Summing Up**

A comparison of the merits of the various route options has an element of apples and oranges about it. 1, the 2s, 3, the 4s and 5 would each cater best for a different type of use and this usefulness must be weighed against the cost of each option. An important consideration in assessing route viability is the proximity to a population of potential path users and likely type of use.

### **Long distance Cycling**

The ultimate choice of route from all the proposed options will have only a marginal effect on a long distance cyclist on an extended tour across Devon. This class of user will be relatively low in number and is able to cope with routes with more challenging traffic and gradients. Lacking local knowledge long distance cyclists are likely to follow the officially signed route.

### **Utility Cycling**

None of the route options are likely to bring about a significant increase in utility cycling. The routes to the west of the Dart, (4, 4a,b &c), incorporate existing well used paths with limited scope for increasing numbers of this class of user, The routes on the east of the Dart, (1, 2 and 2a) have low proximity to population and destinations. Route 3 is better connected but lacks the proximity to a population sufficient to generate significant utility trips apart from a small workforce at the water treatment works.

### **Shorter Distance Leisure Use**

This encompasses pedestrians and cyclists taking short excursions, jogging, dog walking, family cycling, novice cycling. 1 has little to offer to these groups. Options 2, 2a and 3 offer the possibility of opening up an area of countryside which, though near to Totnes, is inaccessible. The 4s are partly in leisure use already and it's debateable if the proposals would increase this. Option 5 has an off road section popular with leisure users, the on-road extension will not increase short distance leisure use.

## **Cost Benefit Analysis**

In the absence of surveys of potential users and modelling of future "traffic" an assessment of value for money is highly subjective. Without hard evidence of a large suppressed demand waiting to be uncorked is difficult to justify the expenditure required by the more expensive options. From a leisure cycling

point of view none of the route options are going to become another Exe Valley Cycleway or Tarka Trail.

## **Estimates**

### **Path**

Rates are base on the “per kilometere” rates for two sections of the Stop Line Way

#### **THE STOP LINE WAY CLOAKHAM LAWN TO WEYCROFT**

**Scheme Length:** 970m (excluding bridge)

**Description: Costs:** Greenfield site through pasture land. Areas of Archaeological interest. Not yet built - adjacent developer causing complications.

Tender Cost            159055.33 + 6% = 168598.65 (excludes piling / substructure and superstructure)

Land (Lease)            25600

Design Fees EDG    90,000

Design Fees NPS        4300

#### **THE STOP LINE WAY KILMINGTON TO B3261**

**Scheme Length:** 990m

**Description:** Greenfield site, through pasture land. Short length through area of plantation. Approx 10 weeks build, commencing June 2011.

#### **Costs:**

Construction Cost    203028

Land (Lease)            19000

Design Fees EDG    63573 (Some complex issues with HA - departure from standard)

Design Fees NPS        4000

Averaging these rates and factoring to per kilometre

Construction            189446

Land                        22791

Design DCC            78500

Design NPS            4237

**Structures**

The estimate of structures costs was carried out by Nick Bott and these are listed with design caveats and advised level of contingencies in the text of his email below.

“I have looked at the options for the bridge crossing as requested and also a possible raised boardwalk structure along a section of the A381 to carry the cycleway route where it is tight against both the river and A381. The structural requirements are based on what I have been able to glean from Mapview and general OS contours and hence have had to rely on interpretation and assumptions of the actual topography. No geotechnical information is available. No potential statutory undertakers costs have been included. All structures assume a clear 3m wide combined cycle/footway. Site access is restricted and a suitable track access will need to be constructed to carry a large capacity crane as well as normal construction vehicles. This is generally allowed for in the estimate as a contractor's preliminary cost. Environmental restrictions will influence the construction impact allowed. The EA need to be consulted regarding building on flood plains and the dimension and span arrangement for the river bridge.

Option 4:

The path runs along the West side bank of River Dart leading to a 45m metre span (possibly two spans) over River Dart using a single span steel Warren Truss construction. This leads immediately on to a raised open boardwalk structure over the flood plain rising up at 1 in 20 to span over the railway with a clearance of 5.3m . The rail crossing would be a single 20m clear span over the railway minimising disruption to the railway operation other than possible erection of the main span if undertaken when trains are operating. The route is then carried on another boardwalk tying into the existing hillside and lane.

Option 4a and 4c:

Basically these both follow the same route. From the West bank of the Dart the bridge crosses the river and spans a clear 42m leading immediately on to an extended raised boardwalk 60m long. The path climbs at 1 in 20 to clear the railway with a single 20m span. Some embankment construction or cutting will be required to then take the route to tie into the existing hillside and lane.

Option 4b:

The river is immediately adjacent to the railway for this option. In order to achieve the 5.3m clearance over the railway and assuming a 1 in 20 gradient

the cycleway needs to be carried on a raised boardwalk for 55m before spanning 40m over the River Dart and then 20m over the railway. The railway is immediately adjacent to the wooded and steeply sloping hillside and some major earthworks will be required to take the route up to the existing lane. (This has not been included in the structures estimate).

### Summary of Costs

Option	River Crossing	Rail Crossing	Raised Boardwalk	Total
4	£394,000	£280,000	£238,000	£912,000
4a and 4c	£367,500	£280,000	£178,500	£826,000
4b	£350,000	£280,000	£164,000	£794,000

Contractors Preliminaries are allowed within these prices.

At this early stage it is suggested that a further 20% contingency should be allowed on these estimated costs

Design fees, project management and supervision costs of 10% should be allowed for in addition to the above.

### A381 Widening to Accommodate Cycleway.

No detailed topographical information is available therefore we are having to rely on OS spot levels and interpretation of OS contours.

It has been determined that a structure to accommodate the cycleway needs to be provided where the existing A381 is between 3m and 7m of the River Dart bank. This is for a length of 75m centred on OS Ref 8060. Elsewhere it is assumed that the necessary width for a cycleway can be gained by local regrading of the verge.

There is insufficient detail available of the topography or existing gabion structures supporting the river bank highway so an accurate assessment cannot be given of engineering works utilising the existing features.

An estimate has however been prepared based on providing a stand alone raised timber boardwalk situated between the edge of the existing A381 and river. This would be supported on exposed tubular mini piles or steel trestles supported on piled concrete foundations pads. A separate vehicular safety fence with a concrete ground beam is also suggested to protect the structure designed for pedestrian loading only. This would be situated at the edge of the A381 carriageway.

75m long Boardwalk = £200,000

Safety fence and concrete ground beam = £33,000

At the early stage it is suggested that a further 20% contingency should be allowed on these estimated costs

Design fees, project management and supervision costs of 10% should be allowed for in addition to the above.

As always where there is only very basic information available further investigation should be undertaken to refine and adjust these estimates.”

**Cost Estimates.**

**Option 1**

New path on existing track 2.18km	412992
Land or traffic signals	50000
Design DCC (v. little design for track)	78500
Design NPS (little or no land, but drain wayleaves)	4237
<u>Total</u>	<u>£545,729</u>
<b><u>Total 1 including 20% Contingencies/Optimism Bias</u></b>	<b><u>£654,875</u></b>

**Option 2**

New path	2.40km	454670
Land		54698
Design DCC		188400
Design NPS		10169
<u>Total path</u>		<u>£707,937</u>
Structure		233000
Struct. Design/Manage @ 10%		23300
<u>Total structure</u>		<u>£235300</u>
<b><u>Total 2 including 20% Contingencies/Optimism Bias</u></b>		<b><u>£1,131,884</u></b>

### **Option 2a**

New path	2.84km	538027	
Land		64767	
Design DCC		222940	
Design NPS		12033	
<u>Total path</u>			<u>£837,767</u>
Structure		233000	
Struct. Design/Manage	@ 10%	23300	
<u>Total structure</u>			<u>£235300</u>
<b><u>Total 2a including 20% Contingencies/Optimism Bias</u></b>			<b><u>£1,287,680</u></b>

### **Option 3**

New path	0..67km	126929	
Repair existing	0.7km	50000	
Rail Security		30000	
Land		9800	
Design DCC		39250	
Design NPS		4237	
<u>Total</u>			<u>£260216</u>
<b><u>Total 3 including 20% Contingencies/Optimism Bias</u></b>			<b><u>£312,259</u></b>

#### **Option 4**

New path	0.830km	157240
Seal existing unbound @£10/m2	0.33km	9900
Land		18917
Design DCC		78500
Design NPS		3517
Total path		<u>£268,074</u>
Structure		912000
Struct. Design/Manage @ 10%		91200
<u>Total Structures</u>		<u>£1,003,200</u>
<b><u>Total 4 including 20% Contingencies/Optimism Bias</u></b>		<b><u>£1,525,529</u></b>

#### **Option 4a**

New path	0.90km	170501
Seal existing unbound @£10/m2	0.33km	9900
Land		20512
Design DCC		78500
Design NPS		3517
<u>Total path</u>		<u>£282,930</u>
Structure		826000
Struct. Design/Manage @ 10%		82600

<u>Total Structures</u>		<u>£908,600</u>
<b><u>Total 4a including 20% Contingencies/Optimism Bias</u></b>		<b><u>£1,429,836</u></b>

### **Option 4b**

New path	1.30km	246279
Seal existing unbound @£10/m2	0.33km	9900
Land		29628
Design DCC		78500
Design NPS		3517
<u>Total</u>		<u>£367,824</u>
Structure		794000
Struct. Design/Manage	@ 10%	79400
<u>Total Structures</u>		<u>£873400</u>
<b><u>Total 4b including 20% Contingencies/Optimism Bias</u></b>		<b><u>£1,489,469</u></b>

### **Option 4c**

New path	0.67 km	126929
Seal existing unbound @£10/m2	0.33km	9900
Land		15270
Design DCC		78500
Design NPS		3517
<u>Total path</u>		<u>£234,116</u>
Structure		826000
Struct. Design/Manage	@ 10%	82600

<u>Total Structures</u>	<a href="#">£908600</a>
<b><u>Total 4c including 20% Contingencies/Optimism Bias</u></b>	<b><u>£ 1,371,259</u></b>

**Option 5**

Seal existing unbound @£10/m2 1.48km	44400
Land	0
Design DCC	10000
<u>Total</u>	<u>£54,400</u>
<b><u>Total 5 including 20% Contingencies/Optimism Bias</u></b>	<b><u>£65,280</u></b>