17 Costs and Sources of Funding

Earthworks approaching Bradley Viaduct

17 Costs and Sources of Funding

Costs of finished works do of course vary widely. Bridges particularly depend upon whether they are proprietary standard designs or one-off features.

In this section we can do little more than record the actual cost of various Greenways to give some indication of what can be achieved for particular budgets.

The development costs of Greenway schemes can be high as there are many details to resolve and parties to satisfy. Our own records for Sustrans projects suggest that the cost of developing a scheme, successfully through to the planning approval stage and managing the works on the ground, amounts to some 17½% of the total project cost. (This excludes land negotiation and costs which we budget at 10% of the total.)

We get very frustrated when larger sums than these are consumed in the early stages, often leaving the works themselves inadequately resourced.

17.1 Examples of Construction Costs

Scheme 1.

Bawdrip to Chedzoy Riverside Path – 1.9km constructed during 3 weeks of summer works by Sustrans' Volunteers in 2006.

This project was straightforward and all on Environment Agency land. The path specification was – 100mm thick scalpings laid on a polypropylene geofabric, finished with 20mm layer of 3mm to dust – carboniferous limestone – verges from available soil, with asphalt links to the public highway, and fenced throughout with stockproof fencing.

Final Costs

Stockproof fencing and gates	8,000
Providing cattle troughs and water supply to all fields cut off from river	15,870
Self-drive plant hire	3,032
Operated plant	2,798
Materials	16,116
Contract works – asphalt	1,117
Foreman for the duration	3,770
Sculptural seating	1,500
Volunteers' expenses and costs	4,824
Management, development and contract 17.5%	9,980
Total	**£67,007**
Costs per km	**£35,267**

Scheme 2.

Mirfield Helm Lane to Bradley Viaduct 2.4km long, including refurbishing bridge over main line railway, a major ramp linking the canal beneath Bradley Viaduct, waterproofing deck of viaduct and rebuilding most of one parapet wall, a climb of nearly 20m to overcome an infilled cutting, a cattle underpass and various ancillary measures.

This project was constructed by Sustrans' in-house construction team in a number of phases 2004 – 2007. The finished surface is 60mm thick machine laid bitmac, 2.5m wide, laid on a stone base 150mm thick with geofabric where necessary on made-up ground.

Finished surfacing, rebuilt parapet on right

Final Costs

Stockproof fencing		5,452
Self-drive plant hire		40,701
Fuel		6,264
Operated plant		8,932
Materials:	sub base materials	24,000
	multiple plate subway	7,000
Landscaping		960
Site Staff		140,724
Transport to site		12,220
Machine laid surfacing		56,021
Repairs to viaduct parapet walls		25,995
Sundry expenses		4,853
Management, development and site supervision		60,047
	Total	**£393,169**
Costs per km including ramped links		**£ 163,820**

Bradley Viaduct showing loss of parapet

Scheme 3.

Railway Path between Langrick Bridge and Anton's Gowt in Lincolnshire 3.6km long, on the Boston-Lincoln route (NCN1).
Contractor, CF Construction of Collingham, Newark, Nottinghamshire

Final Costs

Environment Impact Assessment	£4,500
Tree/site Clearance	£6,100
Site set up, preliminaries and site dismantling	£10,740
Path construction (2.5m wide DBM surface on type 1 base)	£233,980
Accommodation works	£7,125
Fencing/access controls	£13,500
Furniture purchase and installation (signs, various interesting seats, cycle stands, mileposts etc)	£15,000
Artwork	£14,500
Design and management of contract £33,200	
Legal and Surveyor cost	£150
Total	**£338,795**
Costs per km	**£94,110**

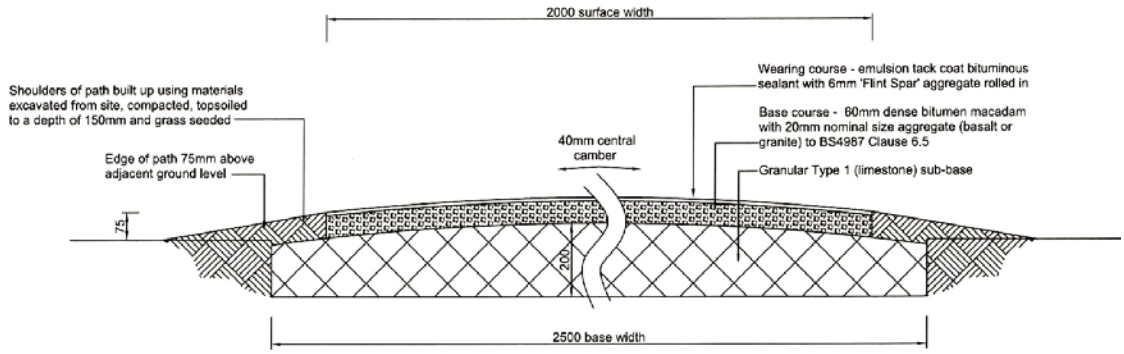
The railway path between Langrick Bridge and Anton's Gowt

Scheme 4.

Paths by contractors in Bury

i. "Banana" path, 3m wide with timber edgings, 4 access controls and considerable tree work, specification as per section below - **£186,000/km**

ii. 2.0m wide path as per specification below with no edgings - **£125,000/km**



Urban works are necessarily more varied in design and costings. The following budgets are used by the London Cycling Centre for Excellence for works in their area.

Type of Facility	Cost range (£000s/km) (2007*)
Gyratory type junctions	583.0
Cycle track with major junctions	350.0-933.0
Cycle track with simple junctions	116.5-350.0
Segregated path with major junctions	291.5-466.5
Segregated path with minor junctions	116.5-233.5
Shared path with many junctions	81.5-151.5
Shared path (conversion), few junctions	35.0-70.0
Kerb segregated lane, many junctions	350.0-933.0
Kerb segregated lane, few junctions	116.5-350.0
Cycle lane with ASLs many junctions	46.5-93.5
Cycle lane with few junctions	23.5-46.5
Cycle lanes on bus lane route	23.5-46.5
Home zones / cycle streets	350.0-933.0
Traffic calmed / managed area	116.5-350.0
Quiet routes town centres	46.5-93.5
Quiet routes suburban	11.5-23.5

Category	Item	Unit	Cost (£) (2007*)
Construction	Gravel or limestone path (250mm thick, no excavation)	m2	11.5-17.5
	Track construction (250mm thick, type 1 plus bitmac base no excavation or surfacing)	m2	23.5-41.0
	Extra for excavation and disposal	m2	11.5-23.5
	Extra for surfacing (see figure 7.3)	m2	4.5-35.0
	Extra for edging	m	11.5
	Extra for concrete kerbing	m	23.5-35.0
	Extra for granite kerbing	m	93.5-116.5
Drainage	Road gulley including pot	No.	583.0-933.0
	Gulley connection	m	116.5-233.5
Lighting	Relocate lighting column (incl connections)	No.	816.5-1167.0
	New lighting column (incl connections)	No.	816.5-1167.0
	Illuminated bollard (incl connections)	No.	350.0-583.0
Marking	White line	m	2.5
	Raised white line (1049.1)	m	11.5
	Cycle logo (1057)	No.	17.5-35.0
Parking	Sheffield stand	No.	175.0-350.0
	Cycle locker including base	No.	1167.0
Signals	Conversion of Pelican to Toucan	No.	17500-23500**
	Toucan on single carriageway	No.	29000-58500**
	Toucan on dual carriageway	No.	58500-11500**
Signs	Small signs (up to 0.5 m2)	No.	87.5
	Medium sign 90.5-1.0 m2)	No.	117.0
	Extra for sign post	No.	117.0
	Extra for illumination on lighting column	No.	291.5
	Extra for illumination on new post	No.	466.5-583.0
	Bollard – cast iron or stainless steel	No.	233.5-350.0

** Taken from London cycling Design Standards 2005 costs (Figs 7.5 & 7.6 pages 144-145) – costs increased by 8%pa to cover construction inflation, figures rounded to nearest 0.5*
*** Figures rounded to nearest 500*

17.2 Sources of Funding

Sources of funds for Greenways are as varied as the schemes themselves. Literally every project is funded in different ways and almost all from a package of different parts.

Whilst this is not particularly satisfactory, it does seem to be the British way of doing things!

Common sources of funds are

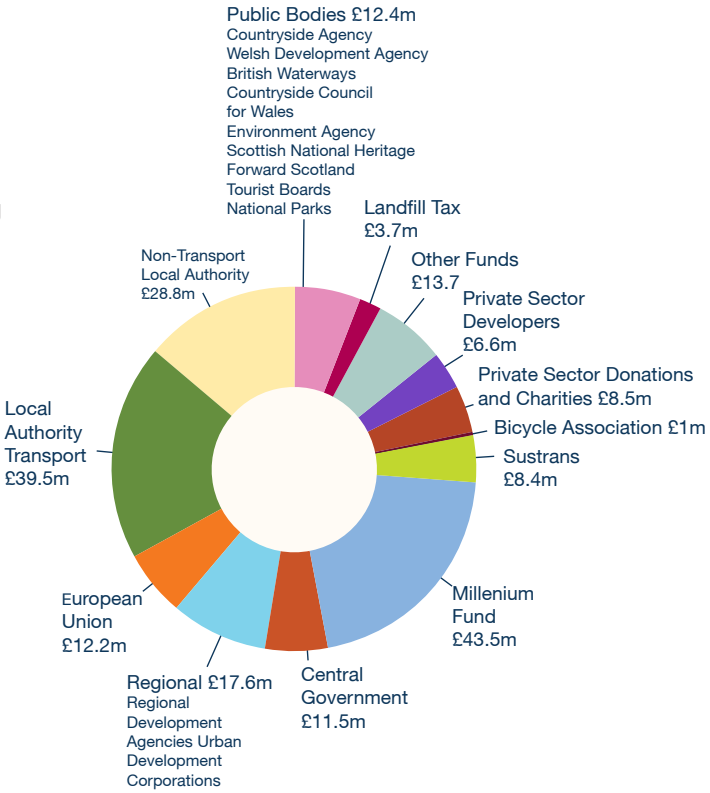
- Local authority transport budgets
- Local authority leisure, parks and countryside funds
- Developer contributions through section 106 agreements
- Development agency funding which may include European funding
- Landfill and aggregate tax sources
- Lottery funding

From even this list it is clear that fund raising is a considerable operation in its own right, and even the success for the National Cycle Network in securing £43.5m in 1995, or the Connect2 application to Living Landmarks £50m fund, usually only contributes some 20% or so to overall scheme costs – although a hugely important and catalytic action.

But what should also be clear is that local authority transport funds are only part of an overall package and where they form the only source one must question whether they could have been more successfully used in drawing down further funding for other sources.

To date, Central Government in Westminster has only provided direct funding for the specific Safe Routes to Schools programme in England. This has been very welcome, and we hope that in due course the Government will fund the whole Greenway programme and developments of the Connect2 project as part of its National Transport Strategy.

In Northern Ireland, Scotland and Wales, the autonomous administrations play a very more direct role in funding programmes in their areas which have proved highly effective.



Sources of Funds for the National Cycle Network 1995-2000
(Estimates as of May 2006)