



This is a summary of activities carried out by KLTC Technical Team during NOV & DEC 2024 in an effort to re-open The Brow footpath using a cost-effective approach that is low risk and safe for Public access.

This summary is presented to the Chair of Kirkby Lonsdale Town Council for monthly Council meeting on 08 JAN 25.

Please note... The planned agenda at the Town Council meeting of 11 DEC 24 was suspended because of the recent fire incident in Kirkby Lonsdale on 08 DEC 24. No update for progress on The Brow was delivered during that meeting. This report includes activities progressed during NOV and DEC 2024.

The Technical Team report that a plan is in place to re-open The Brow footpath by Easter 2025. The plan includes installing a number of boreholes in the slope and footpath and inserting 'inclinometers' and 'piezometers' in the ground to monitor any tiny movement deep in the slope. This 'manage & monitor' scheme will provide almost 'live' data to act as an early warning of ground movement.

Surface monitoring to date shows no significant movement along the footpath.

Incidents / Adverse events to date:

1. No Health, Safety or Environmental incidents were reported during NOV and DEC 2024.
2. High river levels followed heavy rainfall during this period. A visual inspection of the complete footpath was carried out but no damage or movement was noted. The monthly monitoring survey also did not note any movement in the footpath.

Stage 1a. – Tree Management and Vegetation Clearance:

No Contractors on site this month.

Charlesworth Tree Care successfully bid for work to clear the complete slope of small saplings and bushes (but not mature trees) in preparation for monitoring the slope in detail for any movement. For costs see Commercial item in this report.

YDNPA have agreed to the work following a site visit and full application for TPO.

Concern remains in the stability of the motte retaining wall. We suggest removing the tree growth that is nearest to the wall. This was in Dentonside Geotechnicals original report forwarded to St Mary's on 13AUG24. We have concluded that we need to write to the church first, but the motte (formally known as Cockpit Hill) is a listed monument and we may need to contact Historic England.

Stage 1b – Survey Monitoring of The Brow:

Our Geotechnical advisor Simon Ferley (Dentonside Geotechnical Consultants) still perceives risk in two areas where there are visible surface cracks – North by the stone retaining wall and Storm Desmond landslide. He has confidence in the monitoring regime that we have established and the lack of movement recorded.

The monthly monitoring needs to continue until January and then, if no movement is recorded, we go bimonthly for March (to give us an additional reading before Easter) before opening the period to quarterly.

Stage 2. – Geotechnical Investigation over the natural slope:

In the knowledge that the path is stable, we would like to install shape array / inclinometer monitoring at four points: in the path and down the slope at both the retaining wall section and at the Storm Desmond landslip location.

We are inviting costs and timescales for this. These devices will give us data on any movement within the slope. From experience in operating remote monitoring systems there are always two principal issues other than the practicalities of installation: power and security. We need to have an uninterrupted power supply (mains / battery / solar) and have the power and data transfer equipment in an accessible place (we need access to download data and troubleshoot problems) that is secure from theft and vandalism.

Ground Investigation along the footpath is planned over the next few months. Dentonside will assist by writing the scope of work and three prices will be obtained from selected Contractors.

Stage 3. - Erosion at river level:

Dentonside Geotechnical agrees in principle of the scheme to build a river wall but would like it to be as far into the river channel as possible. We are in contact with the Environment Agency, discussing their views on this type of scheme. We may need to give more thought to the northern end of the wall to avoid the river flowing behind the wall in storm conditions.

Commercial

Total expenditure for The Brow during 2024 is shown below...

Company	Item	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	TOTALS
2024																
Malcolm Hughes Surveying Ltd	Monthly Monitoring	£995.00	£995.00	£1,007.00	£3,035.00	£995.00	£995.00	£995.00	£995.00	£995.00	£995.00	£995.00	£995.00	£995.00		£14,987.00
Arbtech Consulting Ltd	THREATS Survey	£1,259.00														£1,259.00
Martyn Fawcett	Drainage Surveys							£80.00			£560.00					£640.00
Dentonside Consultants Ltd	Geotechnical Consultant							£1,129.70								£1,129.70
Fred Gibson	Tree Surgeon									£1,695.00						£1,695.00
Craig Bradshaw	Facilities Management		£690.00								£1,000.00					£1,690.00
Kendal Metal Works	Steel gate posts								£432.00							£432.00
Lakes Loos - Fencing	HERAS Fencing hire									£300.00						£300.00
Miscellaneous items	Locks / signs / vandalism											£88.00				£88.00
2025																
Atlantic Geomatics	Drainage / GPR survey													£950.00		£950.00
Atlantic Geomatics	River channel survey														£1,150.00	£1,150.00
Zirkon	Knotweed survey													£600.00		£600.00
Charlesworth Tree Surgeons	Banking-clear vegetation													£6,300.00		£6,300.00
Charlesworth Tree Surgeons	Lady wood - tree clear														£2,500.00	£2,500.00
																£0.00
																£0.00
																£0.00
		£2,254.00	£1,685.00	£1,007.00	£3,035.00	£995.00	£995.00	£2,204.70	£1,427.00	£2,990.00	£2,555.00	£1,083.00	£995.00	£8,845.00	£3,650.00	£33,720.70

Planned work for JAN and FEB 2025 is arranged and will commence on time.

KLTC Technical Team made a formal request to The Friends at the NOV24 council meeting for £90k from their fundraising account (being £60k raised as a Sub-group in KLTC and the £30k pledge from YDMT) to help finance ground investigation, detailed monitoring of the slope, surveying the riverbed for future erosion protection scheme and Consultancy fees.

To date, only £10k has been received. Unless significant funds are received from The Friends in FEB25 it is unlikely The Brow footpath can be re-opened this Easter.

Kind regards
 Malcolm
Malcolm Perrin
KLTC Technical Team Lead

Kirkby Lonsdale Town Council

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