

Maud Heath's Causeway, East Tytherton Feasibility Study

HIGHWAYS, TRAFFIC & NETWORK MANAGEMENT



Document Control Sheet

Project Title: Maud Heath's Causeway, East Tytherton Feasibility Study

Report Title: Maud Heath's Causeway, East Tytherton Feasibility Study

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1.0 Introduction and background

Maud Heath's Causeway is a pathway in Wiltshire which rises above the Avon floodplain on sixty-four brick arches, as it carries an undistinguished country road between Bremhill and Langley Burrell. It is a Grade 2 listed structure.

In 1474 Maud Heath gave to a trust, land and property in and around Chippenham for the construction of a causeway to allow people dry passage from Wick Hill to Chippenham.

There is evidence that the original Causeway was surfaced with a mixture of limestone brash and cobbling for much of its length, providing a dry walking surface rather than a raised walkway. Fragments of cobbling can still be found at the Causeway's start on Wick Hill, protruding from under the tarmac.

At Kellaways, the Causeway has a raised section. This was rebuilt in 1811 over a series of sixty-four arches. Part of this was replaced with a road bridge in 1853 which was rebuilt in 1961.

The section of Maud's Heath Causeway which needs investigation is in East Tytherton village travelling the Causeway to Bremhill Wick. Sections of the original cobbled surface are visible on the left side of the road on the way to the top. This road continues to the top of Wick Hill where the end of the Causeway is marked by a plaque at the roadside and a monument to Maud Heath which overlooks the valley below.

The Calne Community Area Transport Group (CATG) has identified a need to restore part of the Maud Heath's Causeway. Investigation is required to renew and resurface the Maud Heath's Causeway from East Tytherton (near the driveway entrance to Tytherton House) to Causeway Farm. There are many areas along the Causeway which are currently overrun by vehicles passing each other.

As Maud Heath's Causeway is an historical ancient path, careful consideration needs to be taken into account in order to restore it. Wherever possible it is preferable to recycle original materials as well as gain the correct agreements from interested parties where new materials are proposed.

The proposal is to resurface approximately 700m length of Maud Heath's Causeway. Alter the levels of the footway so that it stands proud of the carriageway and identify the areas where drainage will need to be considered. The carriageway will also need to be resurfaced in places to tie in with the new footway levels and areas of carriageway will need to be repaired where vehicles have overrun the Causeway and the carriageway has sunk.

2.0 Data Collection

Trial Holes:

<u>Trial Hole</u>	<u>Kerb measurement</u>	<u>Kerb condition</u>
1 – near monument	450mm deep	Good condition to re-use especially kerbs at back of footway
2 – opposite Elm Cottage	450mm deep	12 kerbs taken out 11 of which in good condition to re-use
3 – near Wickbridge Stables	Between 400 – 500mm deep	13 kerbs taken out all of which in good condition to re-use
4 – near Homefields	180 – 220mm deep	Good condition to re-use especially kerbs at the back of the footway

The results of the trial holes indicate that the majority of the original kerbs which are situated at the back of the footway are in good condition and can be removed and used at the front of the footway. This will allow the correct upstand to be used in order to decrease the likelihood of overrunning the footway. With the original kerbs being used at the front of the footway we can source conservation edgings to be installed at the back of the footway giving it the stability and appearance it requires.

3.0 Analysis

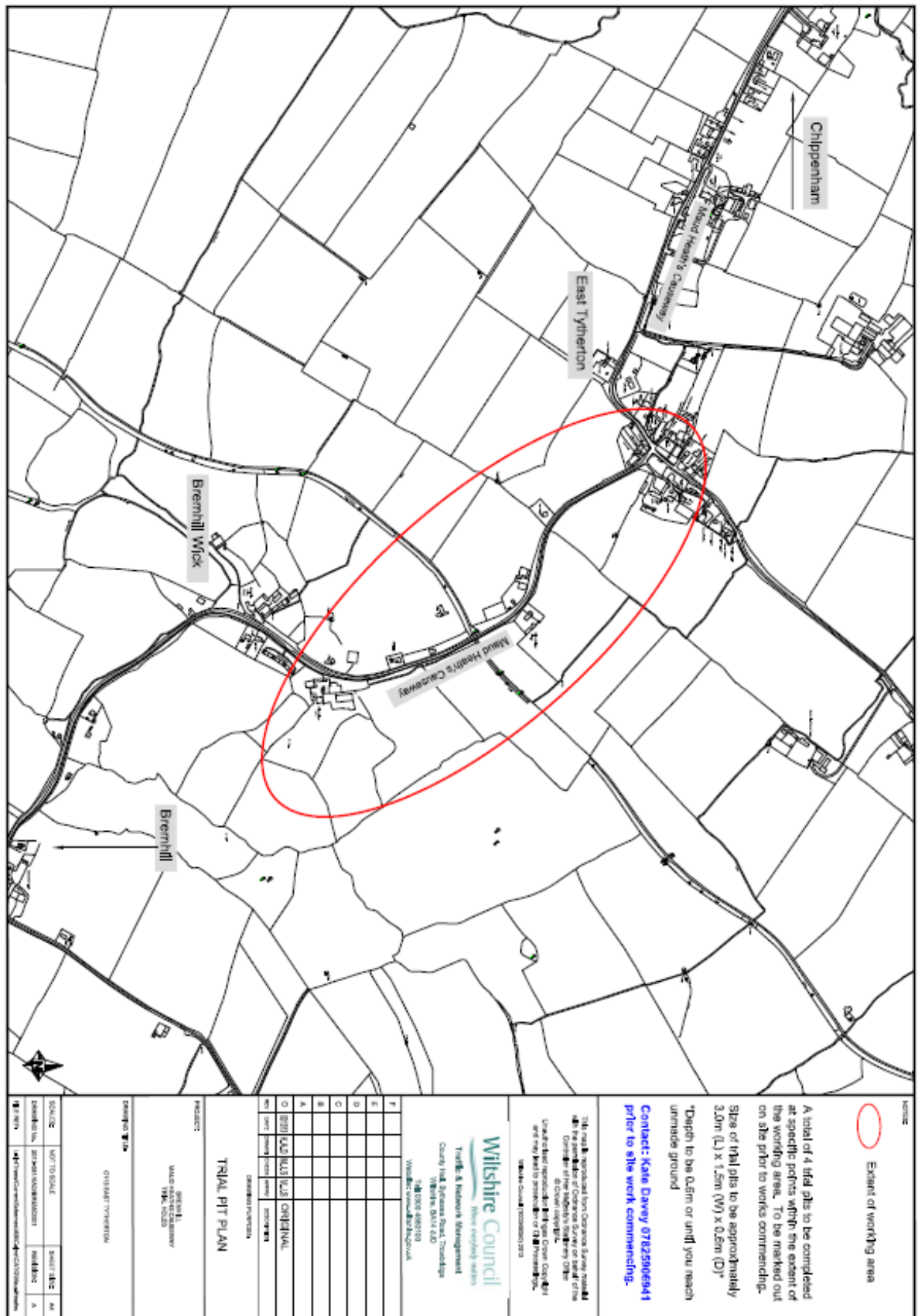
- Realign the levels of the footway and the carriageway to produce a suitable up-stand on the kerb face of the footway.
- Renew the surface of the footway, retaining areas where the original cobbled surface is visible.
- Reuse the old stone kerbs from the back of the footway to use at the front.
- The drainage system will be improved, as the Causeway is on marshland it is susceptible to flooding, a ditch runs along the back of the footway and it may be possible to provide “rathole” type drainage kerbs to pipe into the ditch behind the Causeway.
- As the carriageway is narrow, vehicles currently overrun the footway regularly. This has caused considerable damage. The up-stand on the newly surfaced footway will be higher, therefore vehicles will find it difficult to overrun, so passing places will be required at certain points along the route.

4.0 Recommendation

Our recommendation is to reconstruct the existing footway along the entire length of 700m, using the original kerbs from the back of the footway and installing them at the front with new conservation edgings installed at the back of the footway. We will use our standard footway construction for the new surface but leave the few short sections where the original stone can be seen for the full width of the footway.

The existing drainage system will be improved to ensure that flooding is not an issue with the new footway. There will be a total of 4 passing places required to be located at regular intervals on the opposite side of the carriageway throughout the length of the new footway, and we also recommend that the entire length of carriageway be re-surfaced as part of this project.

Appendix A – Plan of area for trial holes & extent of footway improvements



Extent of working area

A total of 4 trial pits to be completed at specific points within the extent of the working area. To be marked out on site prior to works commencing.

Spice of trial pits to be approximately 3.0m (L) x 1.5m (W) x 0.6m (D)*

*Depth to be 0.6m or until you reach unmade ground

Contact: Kate Davey 07825906941 prior to site work commencing.

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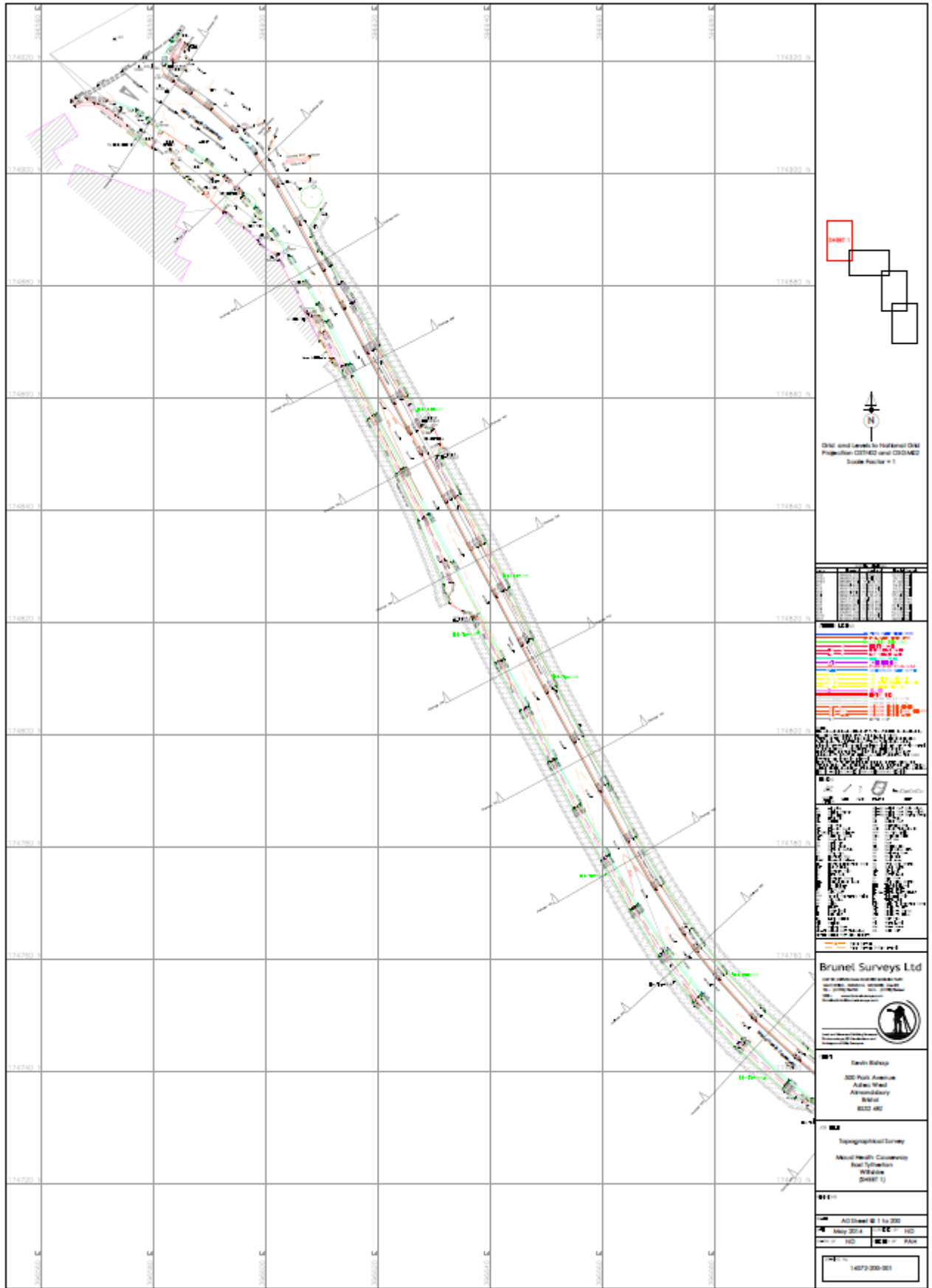
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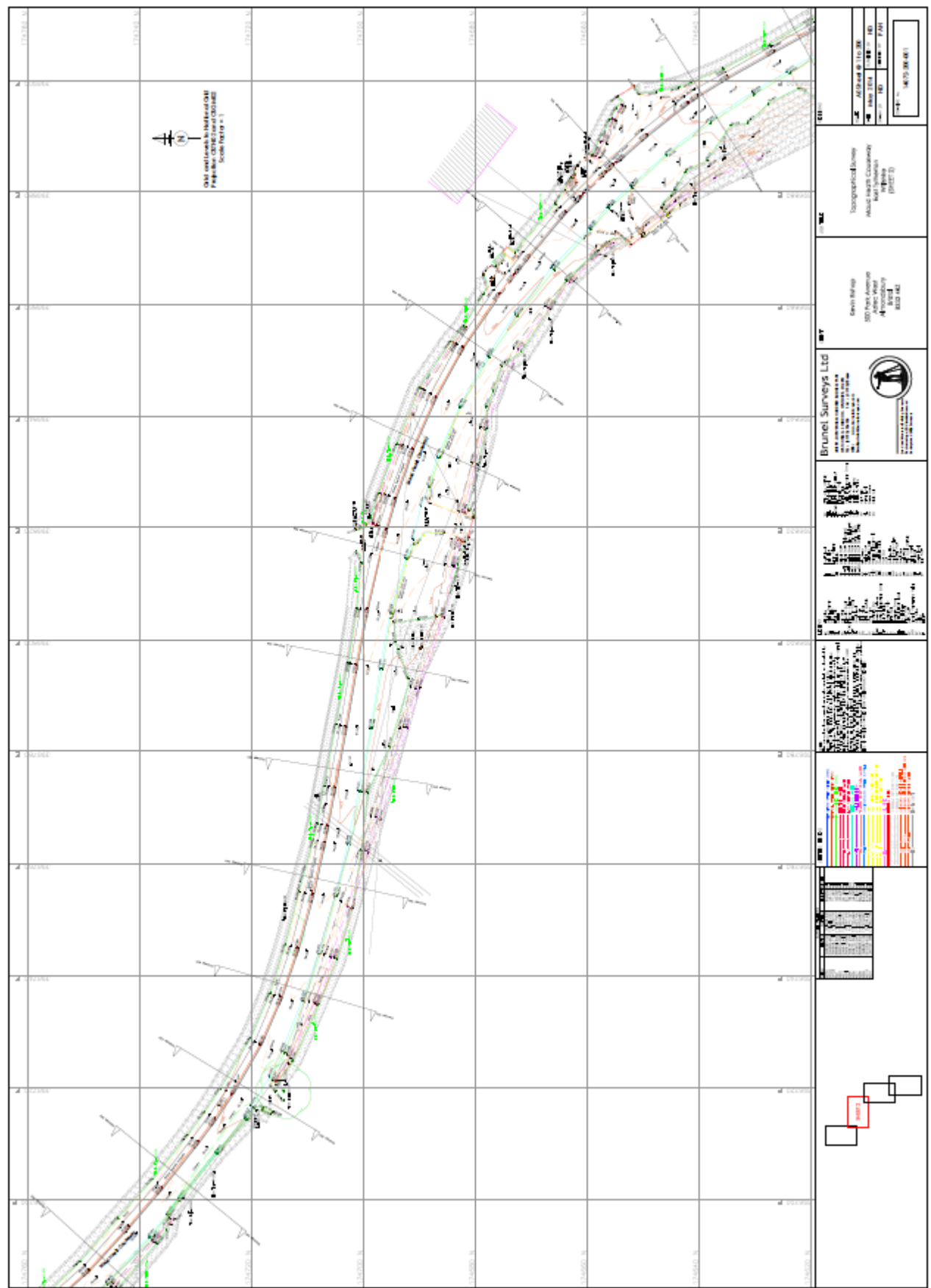
TRIAL PIT PLAN

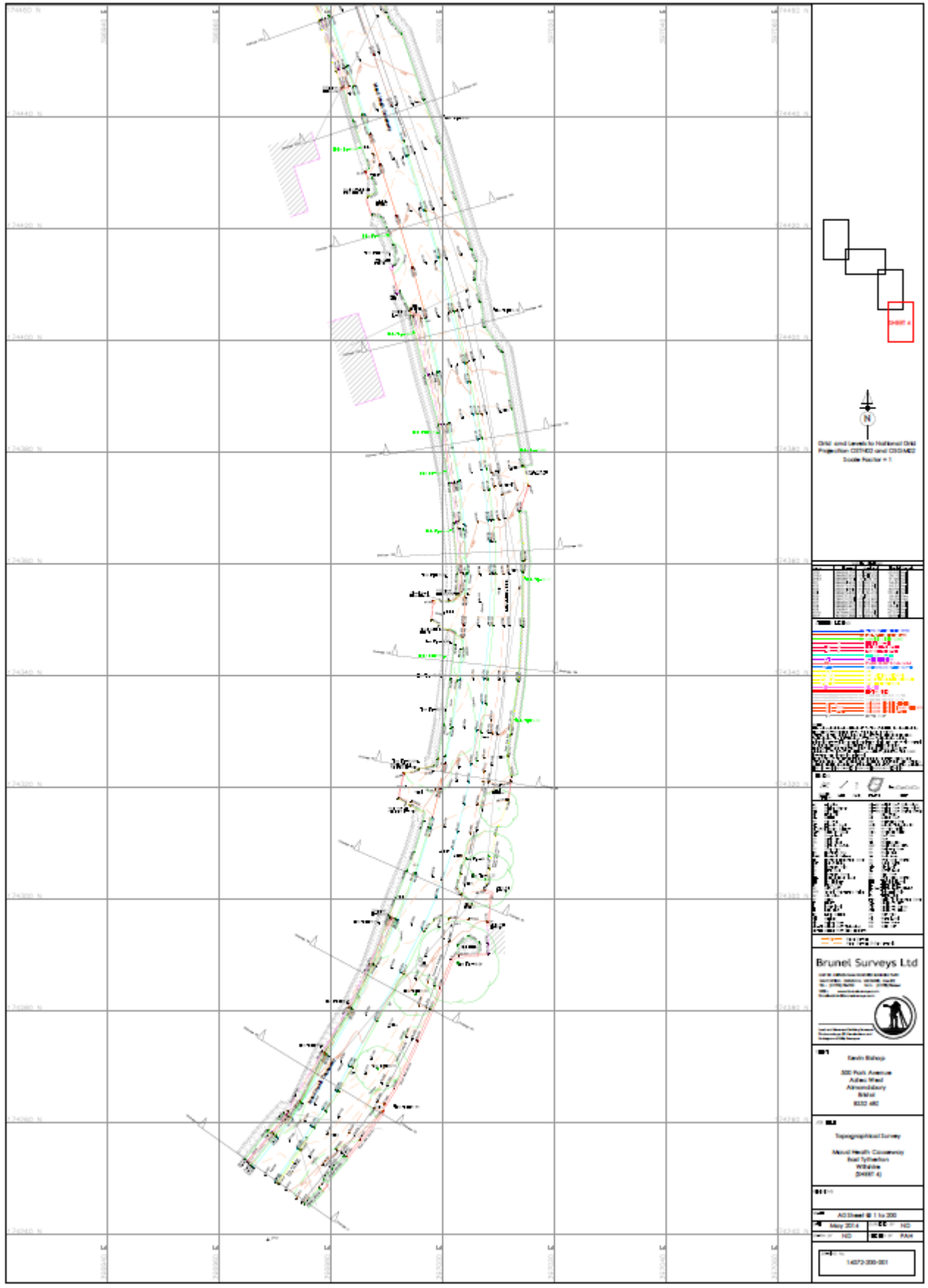
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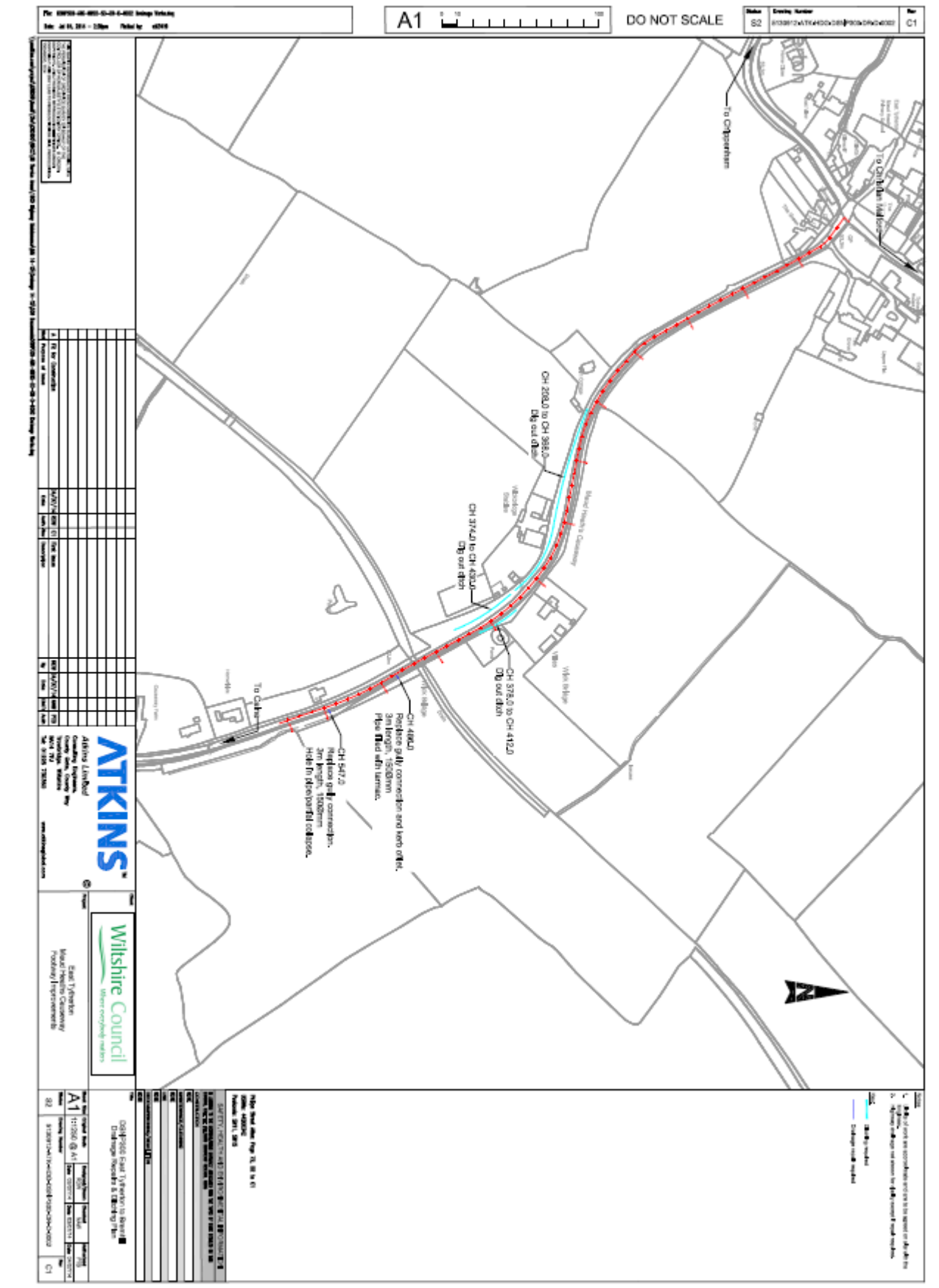
Appendix B – Topographical Survey Plans







Appendix C – Drainage Survey Plan



Appendix D – Trial Hole Photographs





Appendix E – Cost estimate for all elements of the scheme

Topographical survey	£3,000 (PAID)
Drainage survey	£0.00 (In house survey)
Trial holes	£2,215.33 (PAID)
BBLP time spent	£2,980.78 (PAID)
Construction of footway	£165,279.43
Construction of passing places	£41,438.71
Resurfacing of carriageway	£27,935.93
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Grand Total	£242,850.18
Total minus paid elements	£234,654.07