

**Appendix A4**

**Recommendations paper prepared for Grantham Canal Partnership  
Executive Committee**

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# **River Trent to Cotgrave Green Infrastructure Study**

## **Proposed Canal Link Route Selection Analysis Report following Scott Wilson's Interim Feasibility Study**

Prepared by Kevin Mann on behalf of the River Trent to Cotgrave Green Infrastructure Study Working Party for the Grantham Canal Executive - 10th September 2008

### **1. Background and Purpose of Report.**

On the 21<sup>st</sup> August Scott Wilson presented their interim report to members of the project steering group and members of the Grantham Canal Partnership. The focus of this report was the Stage 1 engineering study to recommend the most beneficial and achievable canal link route between the River Trent and Cotgrave. Once this route had been approved then Scott Wilson would progress Stage 2 of the canal route study (a much more detailed investigation) and most importantly complete the Green Infrastructure master plan and report.

**The purpose of this report is to inform the Grantham Canal Partnership of the key issues involved in making the route selection and to seek their approval to adopt the route recommended within this analysis report.**

### **2. Scott Wilson's Interim Study – Executive Summary**

Scott Wilson considered the environmental and engineering impact associated with the following route options:-

- The four routes identified by previous studies (Trent Link Options 1 to 4).
- Two alternative routes proposed by developers ( Mosaic marina option M and the Havenwood Option H)
- A further route recommended by the Scott Wilson team (option T1)
- Variations to the above routes.

Based on the investigations undertaken it was recommended that either of two options were selected for adopting as the preferred route. These were a variation of Option1 identified on attached plan as Option 1b / 1d and a new route identified by Scott Wilson as Option T1.

Option 1b /d – essentially would enter from the River Trent midway between Holme Pierrepont and Radcliffe on Trent running parallel with the disused railway line and then running parallel with and to the north of the A52, to the Polser Brook culvert. Passing through the Polser Brook culvert the new canal cut would then run parallel to the Polser Brook, joining the canal close to the south west corner of Cotgrave Golf Course.

T1 – Largely follows the field patterns between Adbolton and Holme Pierrepont, it would run from the River Trent to the north of Adbolton heading south east and crossing the A52 to the east of the Gamston roundabout and joining the canal to the east of Tollerton Road.

Subsequent to the presentation, a revision was made to the costs provided and route Option 3 became a serious contender both from the perspective of being the cheapest option and by utilising the longest length of existing canal. This route follows the original canal through to Gamston Bridge (the A6001) and then by a new cut through Adbolton directly north to the River Trent.

### 3. Final Selection Process.

This has been undertaken as follows:

3.1 Feed back from key stakeholders. This reflected the disparity of the two routes with a preference from an archaeological perspective of Option 1 and from an ecological perspective of Option T1, although Option 1b/d was still acceptable providing certain measures were put in place. British Waterways from an overall perspective had a preference for Option 1b/d.

3.1 Steering Group. Meetings took place on the 21<sup>st</sup> of August and on the 8<sup>th</sup> September. The most recent meeting included an appraisal of route Option 3.

### 4. Comparison Criteria

#### 4.1 Cost

The most recent cost estimate for restoring the whole canal from the River Trent through to Hollygate Lane Bridge, Cotgrave, inclusive of 23% preliminary costs and 30% contingency costs were as follows:

Option 3 (Existing canal to Gamston Bridge then new cut through Adbolton)	£22,879,828
Option 1b/d (Polser Brook culvert then new cut between Radcliffe on Trent and Holme Pierrepont)	£22,674,620
Option T1 (New link to the west of Bassingfield joining the Trent to the north of Bassingfield.)	£24,602,244

These are latest revised estimated costs based on similar works elsewhere showing little difference between Options 3 and 1b/d.

It is important to note that the estimated costs for 1b/d includes restoring the existing canal arm up to where it is bisected by the Tollerton Road at Gamston

#### 4.2 Engineering

Although all the routes are achievable, there are some differences which led to Option 1b/d to be considered the best option.

##### Option 3

Considered high risk in particular due to the following:

- Gamston Bridge (A6011) - Raising of the east bound carriageway on a bend approaching traffic lights could be difficult and cause major disruption on a main route into Nottingham.
- A52 – Due to the canal being in a deep cutting it will be less difficult to construct than the Gamston Bridge but it would still cause major disruption.
- Archaeology – There are significant archaeological risks associated with taking a new cutting through Adbolton which has the site of a medieval village. A significant amount of site investigation would have to be undertaken before a route is established. A worse case scenario may be that from an archaeological perspective a route may not be possible.

##### Option 1b/d

This option utilises the existing Polser Brook culvert. Unfortunately access would only be available for narrow boat craft with no room for a towpath. If in the future there is the demand for wide beam craft access and towpath access, a new culvert could be provided, although this would cause highway disruption.

##### Option T1

This would require a new culvert under the A52 which would cause highway disruption. Of greater concern would be the need for a 'sump lock', boats would need to be locked down, then back up to pass under the A52. British Waterways discourage this type of arrangement but if installed, they would require a permanent lock keeper to manage passage arrangements. This would significantly add to canal management costs.

#### 4.3 Ecology

Natural England and the Nottingham Wildlife Trust have confirmed their preferences for Option T1 (Option 3 was not commented on, although it is likely to be considered similarly) with Option 1b/d acceptable as a second choice. There were some concerns regarding the impact on the Polser Brook, which a separate parallel cut could overcome.

#### 4.4 Archaeology

Both Options 3 and 1 were considered high risk with Option 1b/d considered a moderate risk. From archaeological perspective utilising existing lagoons was preferable but this would conflict with ecological concerns.

#### 4.5 Green Infrastructure

From a Green Infrastructure perspective Option 3 does have advantages over both T1 and Option 1b/d, providing towpath linkage with Gamston and West Bridgford. Combined with the development of a multi user trail on the former mineral line it would create the opportunity to create a large informal recreational circuit. Option 3 also has more advantage from a canal heritage perspective, restoring a longer length of existing canal.

Linkage for users is perhaps the weakest aspect of Option 1b/d with informal recreational users not being able to cross the A52 within the Polser Brook culvert but diverted to and crossing the A52 at the Stragglethorpe Lane junction traffic lights. If a new culvert were provided in the future then a multi use crossing could be incorporated into the design.

#### 4.6 Development

The following issues were considered:

Holme Pierrepont – Option 1b/d provided the best linkage and development opportunities with this most important regional sporting and recreational facility.

Marina development – Option 1b/d offers the widest opportunities for marina development with land available outside the wildlife SINK designation and away from the most sensitive archaeological areas. Marina development could be linked to a potential Radcliffe on Trent development.

### 5. Summary

As indicated within the executive summary of Scott Wilson's Interim Study, there isn't a clear overall route preference. The three final selected routes, but particularly Option 3 and Option 1b/d have clear individual advantages and disadvantages.

**Taking into account all the issues and balancing engineering, heritage, environment, cost and risk, Option 1b/d is being recommended for approval by the Partnership Executive and be progressed by Scott Wilson through to the detailed study stage.**