

HS2

Impact on Fradley Junction and the Trent & Mersey Canal Conservation Area



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The Inland
Waterways
Association

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Lichfield & Fradley

IWA and Canal & River Trust have procured a report from Hyder Consulting, a reputable rail engineering consultancy, which confirms there is an alternative route avoiding three of the four canal crossings, **reducing construction costs by over £50 million**, having a **major benefit on the canal environment** and a net **neutral environmental impact overall** compared with HS2 Ltd's current proposal.

HS2 Ltd currently plan a total of **four major permanent and 3 temporary engineering crossings within a 1km length of canal**, which with associated embankments will significantly **degrade the quality of the setting and the locality**, and reduce the enjoyment people currently obtain from the area.

The Trent & Mersey Canal at Fradley Junction was authorised in 1766 and built by James Brindley, one of the first canals in England and part of his original 'Grand Cross' of canals to join the existing four main river navigations of the Trent, Mersey, Severn and Thames via the Midlands. These transformed movement of goods and materials in the country. Its historic role and local importance has been protected by **Conservation Area** status. Woodend lock, bridge and cottage, and Shadehouse lock and bridge are all Listed Buildings.

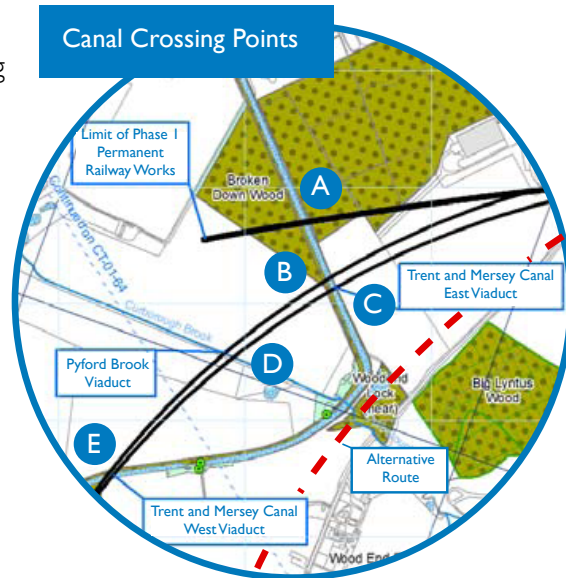
It is currently an active and central part of the nation's canal network, an important leisure resource, a honeypot site for visitors on foot, with local boatyards, cafés, nature reserves, shop, pub and other amenities.

HS2 Canal Crossing Points

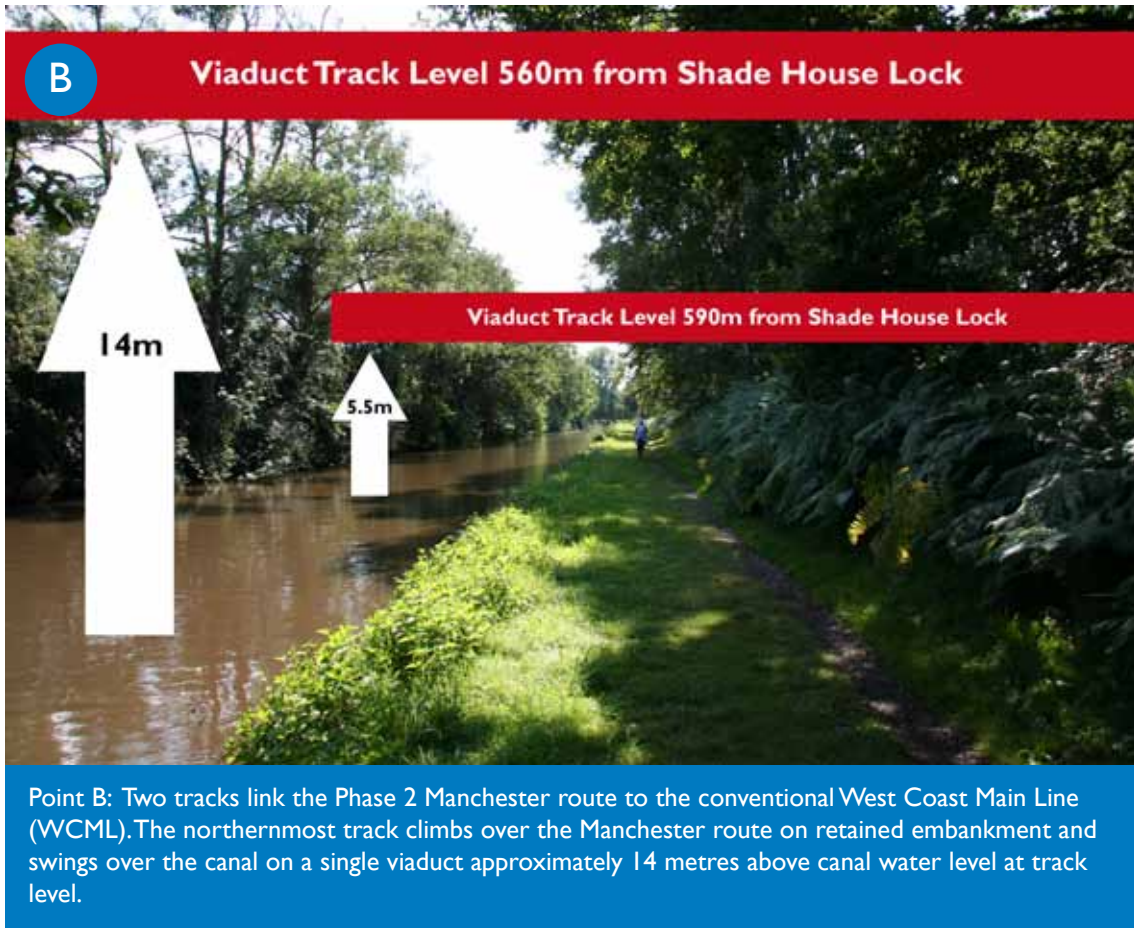
The crossings and close running of the trains on the link line will create noise and visual nuisance, as well as entirely changing the setting and tranquil nature of this section of the canal.

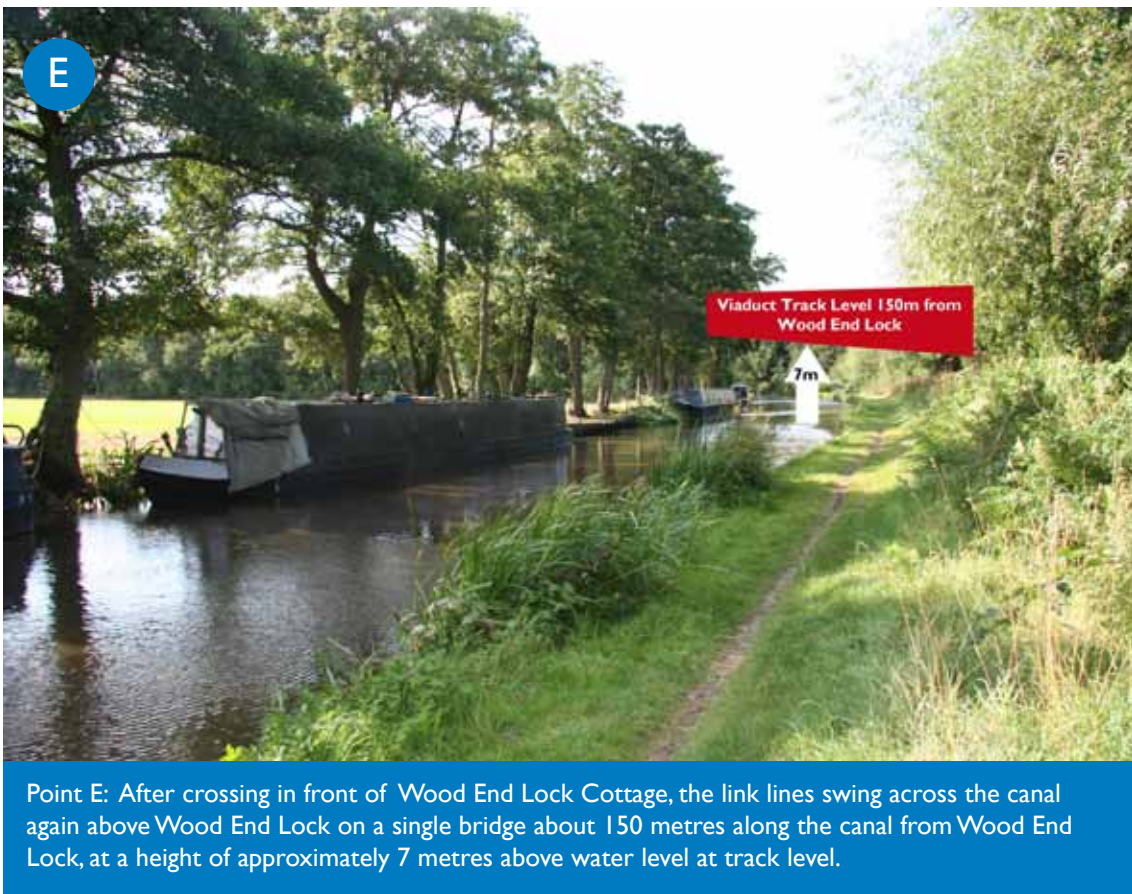
Construction work for embankments and viaducts will inevitably destroy large areas of trees and undergrowth along the canal, which will take many years to regrow.

Adopting the 'Alternative Route' (shown in red) will avoid the crossings and elevated embankments at B, C, D & E, reducing costs, noise transmission and visual impact on the canal and its tranquil setting as the rail route drops to ground level over much of this area.



Point A: The route to Manchester approaches the canal 350 metres up from Shade House Lock on an embankment up to 8 metres high before crossing on a 100 metre twin track viaduct, stopping shortly after. When Phase 2 is in operation, trains will cross the canal at maximum speed creating noise nuisance in this tranquil area.





Summary of the Hyder Report

Summary of the Hyder Report 'Canal & River Trust and Inland Waterways Association HS2 - Fradley Junction Area - Alternative Alignment Study Outline Appraisal'.

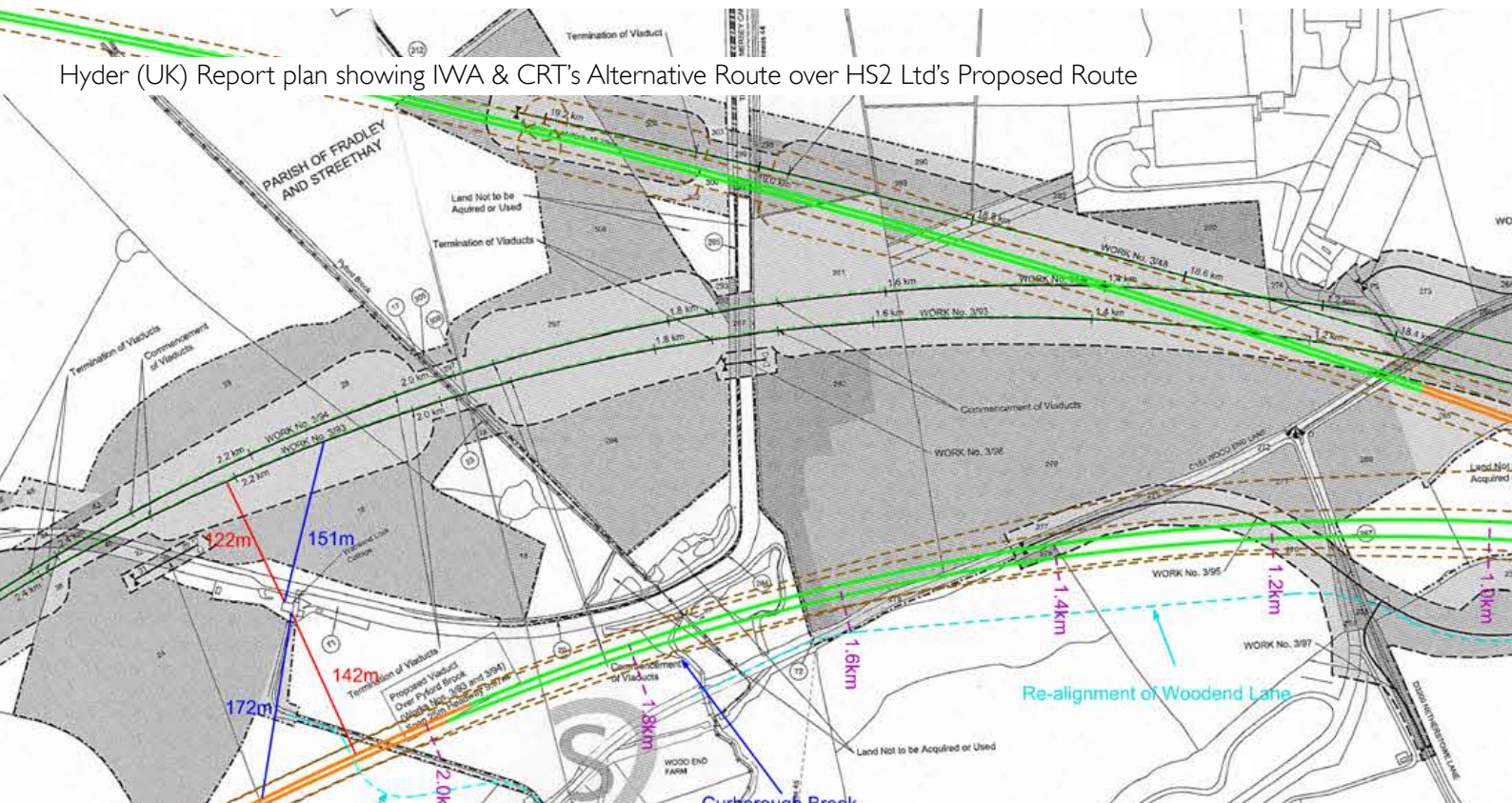
The 'Hyder Report' demonstrates that an alternative alignment for the link to the West Coast Main Line between Streethay and Handsacre that avoids crossing the Trent & Mersey Canal is technically feasible and meets the HS2 design criteria including operating speed, which the current proposal does not. The benefits of this alternative include:

- Avoiding most of the visual and noise impacts on the Canal Conservation Area and the setting of its Listed Buildings.
- Minimising construction and operational impacts on canal and towpath users including temporary closures, permanent loss of moorings and ongoing loss of tranquillity.
- Reducing wider impacts on the recreation, tourism and economic benefits of the canal system.

- Removing the canal crossings and thereby significantly reducing the height of the railway above ground level, with consequent reduction in noise transmission and visual impact over a wide area.
- Benefitting the environment overall, with similar effects on woodland and wildlife and reduced impacts on heritage, landscape, noise and people.
- Avoiding the need to construct three permanent canal viaducts, two viaducts over the Pyford Brook and two temporary canal bridges and reducing the height and length of embankments which will save an estimated £54 million in construction costs and reduce construction time, the traffic on local roads and the impacts on local communities.

The full report is included in both IWA's and CRT's responses to the Environmental Statement Consultation, and is referred to in both organisations' petitions.

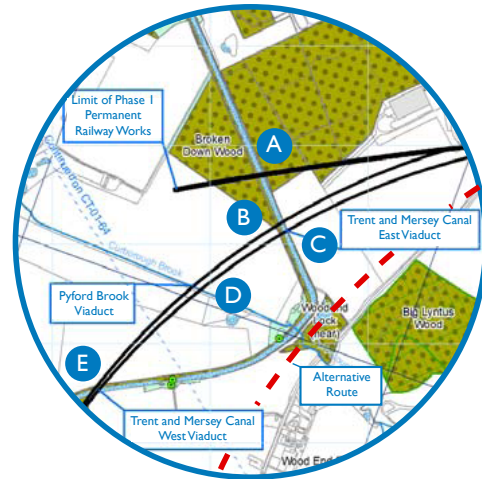
Hyder (UK) Report plan showing IWA & CRT's Alternative Route over HS2 Ltd's Proposed Route



HS2 Ltd's Current Proposals for Crossing the Trent & Mersey Canal at Fradley

The route approaches Fradley Junction from the A38 crossing on an embankment 1.5km long and up to 11 metres high, increasing to four tracks to allow two to split off to the WCML. The main route north to Manchester (phase 2) carries on along 900 metres of embankment up to 8m high before crossing the Trent and Mersey Canal about 350 metres up the canal from Shade House Lock on a 100 metre twin track viaduct (**Point A**), stopping shortly after the crossing. When Phase 2 is in operation, trains will cross the canal at maximum speed creating noise nuisance in this tranquil area.

The two tracks linking the Phase 2 route to Manchester to the WCML (the medium term route for going north from Birmingham) split off from the track that later crosses the Trent & Mersey Canal (Phase 2 route described above). The northernmost link track climbs on retained embankment to cross the Phase 2 route and swings over the canal on a single viaduct around 560 metres up the canal from Shade House Lock, and approximately 14 metres above canal water level at track level (**Point B**). The southern link track swings west from the Phase 2 route and crosses the canal parallel to the northern track, 590 metres up the canal from Shade House Lock, and approximately



5.5 metres above canal water level at track level (**Point C**). Both crossings are 80 metres long. A power transformer will also be situated behind the southernmost embankment toe, on the offside. The crossings and close running of the trains on the link line will create noise and visual nuisance, as well as entirely changing the setting and tranquil nature of this section of the canal.

The two linking tracks continue on a split level embankment crossing the Pyford Brook in front of Wood End Lock Cottage (**Point D**) then swinging round to cross the canal again above Wood End Lock on a single bridge 100m long about 150 metres up the canal from Wood End Lock, at a height of approximately 7 metres above ground at track level (**Point E**).



Construction work for embankments and viaducts will inevitably destroy large areas of trees and undergrowth alongside the canal, which will take many years to regrow.



The Way Forward

IWA and Canal & River Trust are petitioning to ensure this alternative route is implemented, saving the canal setting, lowering the track and thereby reducing noise nuisance, visual intrusion, reducing temporary works on the canal and reducing overall cost.

Moreover, if the Higgins Report 'HS2 Plus' is implemented, its proposal to accelerate the Phase 2 section to Crewe and create a road / rail interchange there, could negate the need for, and economic viability of, the whole link from HS2 Manchester Main Line across to the WCML at this point.

Find out more - www.waterways.org.uk/hs2



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