



Monckton Coke and Chemical Company Limited

New Rail Sidings

Outline Methodology

September 2013

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Outline Methodology

Note: This is an indicative methodology based upon a preliminary review of the proposed works and is subject to update and amendment once a detailed assessment of the finalised design is available.

*Please read this methodology in conjunction with the sketch titled **Indicative site layout for the installation of new railway sidings** as appended to the end of this document.*

Delivery Office

This project will be delivered from Story contracting's depot in Normanton. The majority of resources for the works will be provided from the local area and will consequently provide significant social and economic benefit to the South Yorkshire community.

Plant and Labour

All works will be carried out by Story Contracting staff who are experienced in the construction of railway sidings and associated civil engineering works. All staff on site will hold appropriate competencies and will hold Network Rail accredited Personal Track Safety (PTS) qualifications.

Although the works are not being carried out on Network Rail controlled infrastructure, to ensure safe and effective delivery we will operate under the same arrangements.

All plant required for the works will be drawn from Story Contracting's fleet of rail and traditional civil engineering plant, ensuring the highest standards of quality delivery, safety and environmental protection.

Environmental Protection

A project specific Environmental Management Plan will be produced for this scheme. This document will outline the considerations recommended by both the client's ecology surveys and general good practise.

Site clearance works will be kept to a minimum and will be planned to avoid the bird nesting season and consider the need to protect any other species that may be present on site.

A project specific Site Waste Management Plan will describe how materials will be sourced, using sustainable supplies whenever possible, along with opportunities for incorporating recycled material won on site.

Waste to be removed from site will be minimised as the design intent is to incorporate as much site won material as possible, reducing transport and landfill impact.

To avoid generating dust during the works we will operate dust suppression measures when handling aggregates and will plan deliveries to minimise double handling.

Working Hours

Work will only be undertaken during normal working hours (07:00-18:00) and the noise produced from the construction process should be no greater than the background noise of the surrounding plant and highway infrastructure.

Site Access

The site will be accessed off the B6428 using an existing route. This offers a wide turning from the main road with good visibility in either direction. From the junction the existing route will be followed to the proposed compound location. The existing route is constructed part from concrete and part compacted stone and will require minimal upgrading to make it suitable for use by construction vehicles.

A detailed traffic management plan will be developed that will clearly describe how vehicle movements and deliveries will be controlled and how adverse impact on the environment will be minimised.

Compound and Welfare

A site compound will be formed local to the works. The precise location will be determined on site and is shown indicatively on the attached sketch. The compound will be approximately 50m x 50m in size.

Fully serviced site welfare facilities will be provided within the site compound. The compound will be securely fenced and CCTV based monitored security will be provided.

Construction Methodology

The anticipated construction sequence for the railway sidings works will be:

Receive and Stockpile Materials. Materials for the works will be stockpiled within the site compound. Rails, sleepers and associated track components will be offloaded and securely stored. Ballast and other aggregates required for the works will be planned for delivery as it is used. A stockpile of ballast will also be created to ensure continuity of working between deliveries.

Zone 1. This section of track is constructed on an existing redundant track bed. A preliminary site inspection indicates that this is in reasonable condition and it is likely that scraping off the top layer of the existing material will be sufficient to create a suitable formation for the construction of the new siding. This will be tested on site to validate this assumption. Much of the existing track ballast on site appears to be in a reusable condition so consideration will be given to retaining this material, screening out any deleterious content, then reusing it within the works.

The new track is installed as a single line and there is significant vegetation on either side of the existing track bed. The preferred construction method therefore requires that all plant movements take place within the footprint of the new track, rather than from working alongside. Our anticipated methodology is therefore:

- Working north away from the proposed compound location.
- An excavator and dozer will uplift existing track bed material and remove it using dumpers.

- Dumpers on each return trip will deliver new ballast to the workface and tip it onto the route.
- The excavator will distribute a layer of new ballast ensuring that all plant movements can take place on the stone and not the exposed formation.
- Once at the far end of the site, the final depth of ballast will be placed by dumper and graded off, this time working back towards the compound.
- The ballast bed will then be compacted with a mechanical wacker ready to receive sleepers.
- Working away from the compound again sleepers will be lifted into position by an excavator and fine lined by trackmen.
- Once 6m of sleepers are placed the excavator will lift into position 6m long temporary slave rails. This will allow a rail mounted excavator to operate on track to place the next 6m of sleepers and rails.
- This process will repeat until at least a full 18m rail length of track is installed.
- The rail mounted excavator can then pull into position a pair of 18m rails. The temporary slave rails can now be removed, replaced with the new rails and clipped up by trackmen.
- This process will repeat in 18m sections until the northern end is reached.

Initial surveys indicate that the track in this location may cross several buried utilities. Subject to detail design there may be a requirement to install concrete slabs beneath the track bed to carry the imposed loadings over the services.

Zone 2. This section of track is constructed in an open area meaning that the works can be readily accessed from the side. It is likely that this area will need the existing site levels reduced to reach the proposed formation. This will be carried out by excavators and dumpers and they will also install any stone required as a foundation for the new track. The track itself will then be constructed:

- Dumpers will deliver new ballast to the workface and tip it onto the route.
- The excavator will distribute layers of new ballast and grade off to the required level.
- The ballast bed will then be compacted with a mechanical wacker ready to receive sleepers.
- Working from the side, sleepers will be lifted into position by an excavator and fine lined by trackmen.
- Working from the side 18m lengths of rail will be lifted into place and clipped up by trackmen.

Zone 3. This section of track is constructed in the existing coal yard meaning that the works can be readily accessed from the side. It is likely that the new track bed can be laid directly on the formation once it is reduced to design level. The track itself will then be constructed as described for Zone 2.

The works in Zone 3 include the installation of a turnout to split the sidings. This will be supplied to site in sections and will be lifted into place and assembled on the prepared track bed. The weighbridge in this area will be installed by a specialist contractor and the new track will be connected at either end.

Zone 4. This section of track is constructed in an open area meaning that the works can be readily accessed from the side. It is likely that this area will need the existing site levels reduced to reach the proposed formation. This will be carried out by excavators and dumpers and they will also install any stone required as a foundation for the new track. The track itself will then be constructed as described for Zone 2.

Connection to Network Rail Infrastructure. Network Rail will carry out the refurbishment of the existing S&C turnout within the branch line and will construct a new track stub to approximately 36m into the new siding. This should result in the connection to the siding being sufficiently far from the branch line to not interfere with the operational railway. The connection between the sidings and Network Rail's infrastructure will be fully coordinated with Network Rail and any possession requirements will be implemented.

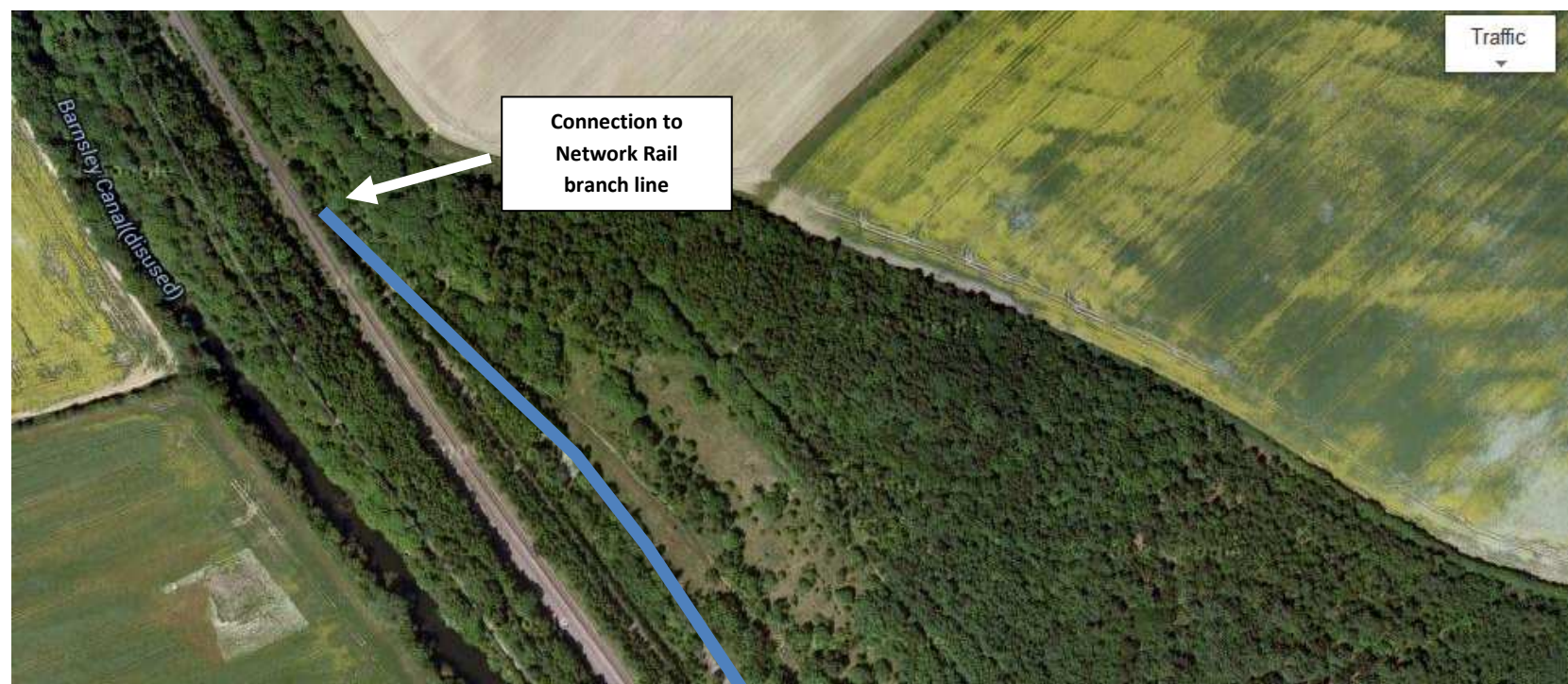
Depending on timescales for the acquisition of the land that Zone 4 is constructed on this work may need to take place in a separate visit.

Top Ballast. Once the track is installed top ballast will be placed throughout the sidings. This will be done with a rail mounted excavator and trailer placing ballast using a clamshell attachment. Once placed, a profile bucket will be used to regulate the ballast to a neat finish.

Commissioning. The site will be tamped throughout to design levels either using a rail mounted excavator with tamping bank attachment or using a rail mounted tamper.

The completed works will then be handed back ready to be put into operation.

Programme. Our anticipated duration on site to complete the works is ten weeks.



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The Monckton Coke and Chemical Company Limited.

Indicative site layout for the installation of new railway sidings

