



## Chichester 506B & HP02 Medium S&C Refurbishment [CAT 78]

**Start/Completion Date:** April - May 2020

**Contract Value:** £136K

**Client:** Network Rail – Sussex Works Delivery Track Unit

**Client Contact:** Mr James Pickard

**Contact Details:** james.picard@networkrail.co.uk 07815 118 973

**Traction Power Type:** Third Rail

**Worksite Type :** Third party for core works with full worksite management.

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*Many thanks for all you persistence at the weekend and considering the obstacles that were thrown at you and your teams. I feel the works achieved was excellent and everything I expect from a supplier supporting my workbank, so please pass my thanks on to all”*

**James Pickard,  
Project Manager**

Readypower Terrawise Limited (RTL) were approached by Network Rail’s Sussex Works Delivery Track team, to undertake the medium S&C refurbishment of Chichester 506B & HP02 points. The asset had been identified for upgrade due to life expired components, to provide resilience for the TOC/FOC, particularly with this being a main commuter route.

RTL were engaged under an NR4 contract of works to undertake the CAT 78 refurbishment of the asset with full integration of the ETE and signalling activities and recovery of redundant materials.

## Scope of the works

- Replacement of 68no S&C bearers
- Gauging of tie in points to allow for smoother transport
- Signalling equipment modifications
- Removal of life expired ballast and part formation works
- All small part components to be renewed
- Installation of track to new design geometry
- ETE interface, with third rail components replaced where identified

## Mobilisation

RTL's experienced track engineering team were mobilised with key consideration given to our responsibilities under the CDM 2015 regulations, whereby key roles were identified and provided to Network Rail in line with the contract organisation table detailed below:

Name	Role
Paul Connor	Contractors Representative & Design Co-ordinator
Neil Hudson	Contractors Responsible Engineer (CRE)
Richard Burnham	Competent HSQE Person
Phil Wheeler	Contracts/Construction Manager
Callum Horn (Readypower Rail Services)	POS/Plant Manager
Sean Traynor (RPS)	Possession/SOWP Manager
Steve Whatling (Fuse Rail)	ETE Responsible Manager
Dave Hersey (Randstad Signalling)	Signalling Responsible Manager

With a late contract of works, proposals were set to conduct a site review of the scheme and to raise the critical preconstruction documentation inclusive of AMP, CPP, EMP's, WPP and TB's which were forwarded to the Network Rail engineering team for review and acceptance. With safety being paramount, engagement with the works delivery team was key to the successful delivery, to enable a robust SSOW production and understanding of the local area.

Once identification of the assets to be replaced was complete, RTL set about engaging the supply chain partners to support the works as required. With COVID-19 restrictions creating challenges to engage with clients, this imported a further element of risk to the works. Due to this, additional consideration was taken to ensure we could successfully deliver the works whilst mitigating this risk.

Additional welfare facilities were procured alongside the overall site set up which included, COVID secure signage, hand washing and sanitation stations, and the deployment of COVID-19 Marshalls, enabling us to ensure compliance with all government guidance on social distancing throughout the construction and handback duties.

Having an insight into the market across a vast array of clients enabled RTL to be selective in our approach to procurement, having the ability to provide inhouse plant and POS solutions, whilst utilising the best placed signalling and ETE supply chain to provide best in market capabilities, ensuring the strength of the methodology was embedded throughout the site.

The delivery team set about putting together the methodology of the works with a holistic view of other work interfaces involved in the possession, taking consideration of the environment for any increase of noise pollution, or burdening of residents.

Risks were mitigated through a series of deconfliction meetings, to enable all work parties to maintain a seamless programme, with changes identified and a new workable solution adopted. Hold and interface points were encompassed within the hour by hour, with a measure against the four hourly reporting mechanism.

## Delivery

The core works were delivered in a 27-hour access in Week 05 2020. RTL deployed site access control with all welfare provision in line with our COVID Secure Policy owing to the delivery taking place during the course of the pandemic.

On arriving for the main core delivery, issues were identified from the outset, with possession limits differing from publication. Our experienced management and engineering team were able to negotiate this risk through the on-call process and perseverance resulting in a revised timeline with impacts for completion being agreed.

The works proceeded with a five-hour delay. Two methods were adopted to optimise the delivery of the scheme, initial utilisation of the Tube Cube suction method for ballast displacement, which enabled low resource levels to be on site allowing us to be considerate to the COVID-19 measures we enforced. We then conducted full removal of the S&C units due to the site being laid within jointed track areas, which allowed for faster delivery time and to align the signal testing upon completion for both packages. Works were managed with onsite reports and supporting evidence to enable TOC to be achieved.

A high-level overview of our methods of working are detailed as follows:

- ▶ Once worksite was granted a live line test was conducted and all permits were checked, issued and briefed to allow works to commence
- ▶ Disconnections of associated S&T and ETE equipment was conducted by our approved supply chain partners to allow removal of redundant hardwood bearers
- ▶ Teams set about adopting both methods of removal at site, one with RRV and Tube cube on 506 points and full removal of jointed rails on HP02 to permit access to the bearers
- ▶ The use of tube cube excavation methods deployed on 506 points allowed for a reduced resource level on site due to COVID conditions, whilst HP02 was delivered by way of resources removing joints and bolts, to allow RRV removal of rails and bearers, these were removed and the footprint levelled to desired design position

- ▶ Bearer alignment was reinstated optimising GPS techniques
- ▶ Rail positioning was gauged into correct tolerance to allow for the baseplates to be torqued to correct level once the bearers were drilled in-situ
- ▶ Rails were clipped up utilising new small part components of clips, pads, ferrules and part replacement of baseplates
- ▶ Ballast was deployed across site to correct profile
- ▶ Kango packing was conducted to design position with jacks to level
- ▶ Re-instatement of the S&T with installation of new tubular stretcher bars and ETE equipment associated with the worksite was completed with regauging activity undertaken as required
- ▶ RRV's, attachments, small tools and redundant materials were removed back to the access
- ▶ Signal testing was conducted once worksite was completed
- ▶ All permits were cancelled and handed back to the Engineering Supervisor on completion

## Completion and Handback

Right time handback was a measure of the success, given the delays to the start of the works and constraints enforced upon the delivery. The works were delivered accident and incident free, and the asset was handed back to client with zero snags and an improved track quality. As part of successful integration, RTL assisted with ballast removal from an off-track Network Rail project, whereby the excavated material was removed and redeployed.

## Demobilisation and Close Out

The infrastructure was left safe and secure allowing passenger and freight operations to recommence. All equipment, plant and welfare within the compound area was fully demobilised and made secure prior to handing back to Network Rail.

All post construction documentation was completed and supplied to the Network Rail engineering team within the prescribed 48-hour period. Full AMP process was followed throughout with full site documentation produced following installation including CRT forms & TEF3203 handback forms. CRT was managed in conjunction with Network Rail. TOC was achieved within the correct timescales.