



Drayton Abandonment [CAT 73]

Start/Completion Date: June 2020

Contract Value: £218K

Client: Network Rail – Sussex Works Delivery Track Unit

Client Contact: Mr James Pickard

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Traction Power Type: Third Rail

Worksite Type : Third party for core works with support provided for the possession management by way of 5 No. Level Crossing Attendants being supplied across the 52 hours of access.

“ Personally this is the first time we have achieved 3 abandonments within the 52hr possession and your teams interactions with all the multiple disciplines, I felt, was very proactive and professional and supportive to the project. Along with the quality finish with good feedback from Both RAM and Local TME there were some efficiencies within the core delivery.”

James Pickard,
Project Manager

Readypower Terrawise Limited (RTL) were approached by Network Rail’s Sussex Works Delivery Track team, to undertake the abandonment of 3 number S&C units and the installation of 200m of plain line throughout the worksite, as part of the asset upgrade which supported the overall IP Signalling programme.

RTL were engaged under an NR4 contract of works to undertake the CAT 73 abandonment and plain line installation with full stress, weld, and recovery of redundant materials, including full modification of the third rail throughout the footprint and IBJ recovery.

Scope of works

- Full IDC / IDR reviews with Form B approval coupled with full modifications of the third rail
- Worksite management
- Road closure application
- Train Haulage programming
- Removal of 3 No. S&C units
- Removal of contaminated ballast
- Installation of 200m of Plain Line across two adjacent lines
- IBJ recoveries
- Track positioned to new design geometry including overlapping tamping scheme
- Welding and stressing of the asset
- Temporary Speed Restriction design management
- Monitoring for CRT

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

As part of the mobilisation stage RTL conducted a joint walkout with the client's engineering team to enable the delap survey and AMP012 to be completed in the same access. This approach also allowed us to identify and deploy effective planning techniques and a more efficient approach to delivering the scheme, which was to be the largest intervention of the Sussex 2020/2021 track replacement programme.

RTL compiled all 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. TSR design was also conducted although through planning RTL proposed and successfully delivered the works as a full line speed handback site, which mitigated the need for a TSR.

Deconfliction and worksite planning meetings were conducted with all stakeholders, through this process it was decided to utilise train haulage between two work parties to provide efficiency in delivery costs. Supply chain partners were also met, to discuss the works in full to enable them to successfully mobilise and support the core delivery weekend. The interaction of plant interfaces at the access and egress stages were identified and programmed. A robust timeline was put in place with full QRSA review held due to the DWWP process, to ensure RTHB was achievable against all interfaces. A series of meetings were also held to discuss the principle signal testing arrangements, to allow "wheels free" timing to be incorporated into the master programme.

In the lead up to the core works RTL incorporated the RDT placement and midweek night preparing of the works, from full survey for design validation, rail positioning and cutting of existing S&C bearers which were to be abandoned, to afford a more efficient method of working within the 52 hours delivery weekend.

Delivery

The core works were delivered in a 52-hour access in Week 26 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. The compound, laydown and parking areas were negotiated with the local council due to limited roadway space being available. RTL also conducted the management of road closures that were required in the area and provided staffing for Level Crossing Attendants throughout the 52-hour delivery.

The scheme provided us with the optimal conditions to deploy Readypower's newest edition to our fleet, the Superbug 300, which has been developed and built to allow all stages of the critical path on track renewals to be delivered safer, more efficiently and with less environmental impact when compared to previous generation track railers. Utilising this machine allowed an effective method of ballast removal and reinstatement, as well as providing time efficiencies in the laying of new sleepers through the area to be plain lined.

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
- ▶ S&T and ETE disconnections across both Up & Down Main covering 502a/b and 503pts was conducted by our approved supply chain partners to allow scrapping out of existing rail and components to commence
- ▶ Access burners at Drayton Level Crossing and burn rails on Up Main x 54 cuts
- ▶ Manpower unbalance baseplates within S&C footprint
- ▶ On track RRV's and remove conductor rail from Up Main renewal footprint
- ▶ 1no RRV to load scrap rails to Train
- ▶ 1no RRV to load scrap sleepers to Train
- ▶ Reset plant and access Dozer
- ▶ Dig - Up Main (200mm reballast)
- ▶ Install geo separator
- ▶ Install bottom ballast and consolidate ballast with whacker
- ▶ Install sleepers at 28no per length x 205no TOTAL
- ▶ Reposition rail and thimble into house, plate up joints

- ▶ Clip up site with MvK4 Fastclipper
- ▶ Unload top stone
- ▶ Similar methods of delivery were adopted for both Up and Down Main Lines, with engineering train sequencing planned and executed to support the renewal of both
- ▶ As Built survey for tamping
- ▶ Tamper to access site and tamps Up Main
- ▶ Tamper completes and crosses to Down Main and tamps
- ▶ RRV brushes both lines and thimbles in conductor rails
- ▶ Welders access site and install 4no cold welds across Up & Down Main
- ▶ S&T and ETE reconnections
- ▶ Stress Up Main and clip up
- ▶ Stress Down Main and clip up
- ▶ WHEELS FREE (BY OTHERS)
- ▶ Snag site and Regulate Ballast
- ▶ Permits cancelled

Completion and Handback

The works were delivered accident and incident free with Right Time Handback achieved in line with the DWWP process. The asset was handed back to client with zero snags and an improved track quality. As planned, RTL achieved the full scope depicted in our programme inclusive of scrap removal and handed the asset back at full line speed mitigating the need for a TSR to be put in place.

Demobilisation and Close Out

The infrastructure was left safe and secure allowing safe 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 local council.

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, Welding installation/ Inspection Certification, Stressing Certs & TEF3203 handback forms. CRT was managed in conjunction with Network Rail.