Ardwick Train Care Depot

RAILWAY
ELECTRIFICATION

SPENCER
British Engineering

"The project saw the electrification of the existing depot to facilitate the maintenance of electric trains"

Ardwick OLE installation

SIEMENS OPERATED DEPOT

JANUARY 2013 - JULY 2013

VALUE
£1.2M

MANCHESTER

Ardwick Train Care Depot

RAILWAY
ELECTRIFICATION

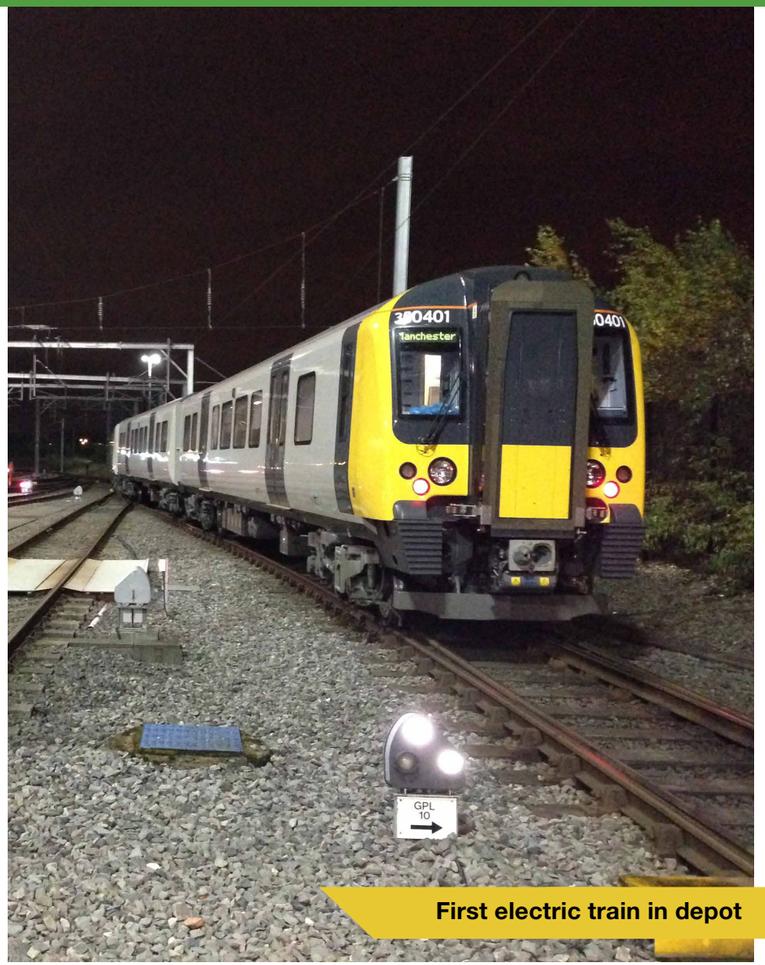
Pod-Trak were contracted to supply and install all OLE required to electrify the Siemens operated depot at Ardwick in Manchester.

The existing track layout was a single connection from the Up East line to the single Ardwick Reception Siding, which provides the connection to the facility.

This arrival line was wired to enable the passage of electric rolling stock into Ardwick Train Care Depot from Manchester Piccadilly.

The OLE System was MKIIIB fixed tension. The depot was electrically sectioned which provided various stabling options to the train operator. Road 8 in the maintenance shed was also electrified and tied into the depot Interlocking Protection System.

With careful planning and communication between Pod-Trak, Spencer Group and Siemens, the Depot remained operational throughout the installation programme.



First electric train in depot

Beddington Lane & Wimbledon Platform 10

Pod-Trak

RAILWAY
ELECTRIFICATION

CLESHAR

"Mitcham Junction to Beddington Lane twin tracking & Wimbledon platform 10 extension"

New masts at Beddington Lane

PILING
MAIN STEEL
SPS
WIRING
REGISTRATION

SEPTEMBER 2014 - NOVEMBER 2015

VALUE
£1M

LONDON

Beddington Lane & Wimbledon Platform 10

Pod-Trak

RAILWAY
ELECTRIFICATION

Registration checks at Wimbledon Station

Pod-Trak were contracted by Cleshar Contract Services Ltd to install a new overhead line system between Mitcham junction and Beddington Lane. The line was previously a single line which was being upgraded to a twin tracked system.

At Wimbledon Station the existing platform was extended to allow two trams to be stabled on the platform, and a new second platform to be built with an extended line.

Pod-Trak's scope of works at Beddington Lane included 21 piled foundations, 14 new OLE structures, four cantilevers, 12 twin-tack cantilevers, the removal of redundant structures, the transfer of existing OLE to new structures, the running of new OLE twin contact conductors and the registration works.

At Wimbledon Station the works included the removal of redundant OLE structures and wire, the installation of 7 new OLE structures, 200m of new twin contact, new switches and section prove the new lines. This project was driven by a very tight programme to allow commissioning and handover of the new system. All works were planned and delivered within the timescales required, and were successfully handed over after meeting the client's technical requirements.

Craigentinny Depot

RAILWAY
ELECTRIFICATION

SPENCER
British Engineering

"The project delivered improvements to Edinburgh's Craigentinny depot to enable maintenance of the Hitachi bi-mode fleet"

Headspan installation

OPERATED BY HITACHI RAIL EUROPE

DECEMBER 2015 - JULY 2016

VALUE
£500K

EDINBURGH

Craigentinny Depot

RAILWAY
ELECTRIFICATION

The project required OLE modifications to facilitate the installation of a new train wash. Works included the installation of new structures, SPS, headspans, section insulators, wiring and registration.

Redundant OLE was stripped out and returned to the maintainer.

Works were carefully planned with Spencer Group and other subcontractors on site to ensure safe delivery of the planned works.

Following completion of the installation and removal works the OLE testing and commissioning successfully took place and handback documentation was completed and returned.

Headspan installation

Doncaster Carr Approach

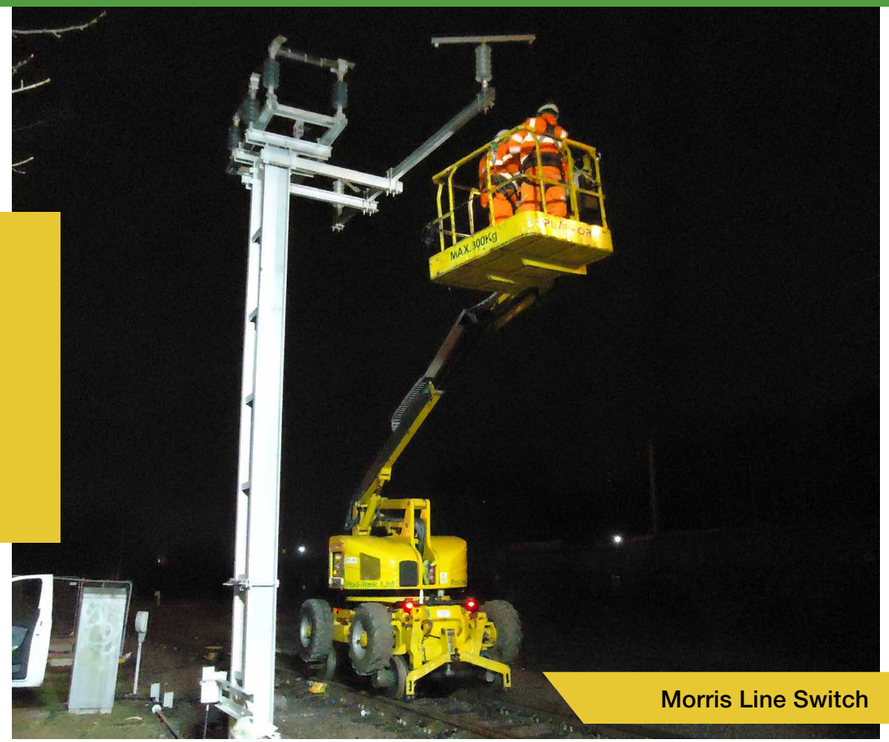
Pod-Trak

RAILWAY ELECTRIFICATION

CIVIL ENGINEERING

SPENCER
British Engineering

"Connecting the new Doncaster Carr Depot to the East Coast Main Line"



Morris Line Switch

FOUNDATIONS
STEELWORK
BALANCE WEIGHTS
SWITCHING

JANUARY 2016 - APRIL 2016

VALUE
£350K

DONCASTER

Doncaster Carr Approach

Pod-Trak

RAILWAY ELECTRIFICATION

CIVIL ENGINEERING

The works were carried out to electrically connect the newly constructed Doncaster Carr Depot to the East Coast Main Line and along with new OLE construction it included alterations to existing.

A total of ten in-site concrete foundations were installed to support seven OLE structures and three anchors. Works continued with the installation of SPS, registration equipment and 250m of MKIIIB 107mm2 contact and AWAC catenary. The scope also included the installation of a high-speed Arthur Flury section insulator and Morris Line 3 position switch.

Works were successfully completed, section proved and handed back with all necessary handback documentation.

Switch & Section Insulator

Elmers End Loop – Croydon Tramlink

Pod-Trak

RAILWAY
ELECTRIFICATION

CLESHAR

"Conversion of an existing siding to a new passing loop"

Contact wire installation

MAIN STEEL
SPS
WIRING
REGISTRATION
TEST &
COMMISSION

MAY 2012 -
JULY 2012

VALUE
£150K

LONDON

Elmers End Loop – Croydon Tramlink

Pod-Trak

RAILWAY
ELECTRIFICATION

Croydon tram

At Elmers End on the Croydon Tramlink an existing siding was converted to a passing loop.

Pod-Trak undertook the OLE installation works which included new structures, SPS and wiring along with alterations to existing infrastructure.

Prior to any trams using the new line, all handover checks were completed including panning and height and stagger recordings. Finally the new installation was tested and commissioned by Pod-Trak prior to entry into service.

Gospel Oak to Barking Electrification

RAILWAY
ELECTRIFICATION

Balfour Beatty

"All resources and plant were supplied in-house, providing flexibility, experience and reliability"

OLE teams at GOBE

26 WIRE RUNS

234 SPS LOCATIONS

SWITCHING

AUGUST 2017 - APRIL 2018

VALUE
£2.7M

GOSPEL OAK EAST LONDON

Gospel Oak to Barking Electrification

RAILWAY
ELECTRIFICATION

OLE teams at GOBE

Pod-Trak undertook the electrification of the Eastern half of the Gospel Oak to Barking route on behalf of Balfour Beatty. The electrification of the lines was undertaken by Network Rail as part of their London Railway Upgrade Plan which doubles the capacity on the line and improves the air quality of those who live and work near the railway.

The GOB electrification uses Series 2 and Furrer+Frey OLE equipment, however the route interfaced with UK1 and OLEMI equipment ranges. Working with a broad range of equipment requires experienced and adaptable staff, which Pod-Trak were able to provide.

The scope consisted of new OLE installation, including main steel, small part steel, wiring, switching, bonding and final registration. All works were fully assured by our construction and engineering teams backed up by signed quality check sheets and ITP's.

All construction activities were completed through blockades and weekend possessions, which required careful and considered planning to ensure safe and efficient delivery. On completion of the construction and assurance activities, the route was panned with Pod-Trak's plant as final confirmation that the OLE was fit for the passage of electric trains.

Prior to our mobilisation, the project had been running for two years and had been criticised by the media as another delayed electrification programme. Following the Balfour Beatty and Pod-Trak mobilisation in summer 2017 and an intense period of site activity the project was successfully energised during the Christmas 2017 blockade. This was shortly followed by the pantograph ready milestone achieved in early in January 2018.

Leighton Buzzard Station AFA

Pod-Trak

RAILWAY
ELECTRIFICATION

SPENCER
British Engineering

"AFA – improving access for all at stations across Bedfordshire"

Leighton Buzzard station

FOUNDATIONS
MAIN STEEL
SPS
WIRE RE-PROFILING
REGISTRATION

JUNE 2014 - OCTOBER 2014

VALUE
£200K

LEIGHTON BUZZARD

Leighton Buzzard Station AFA

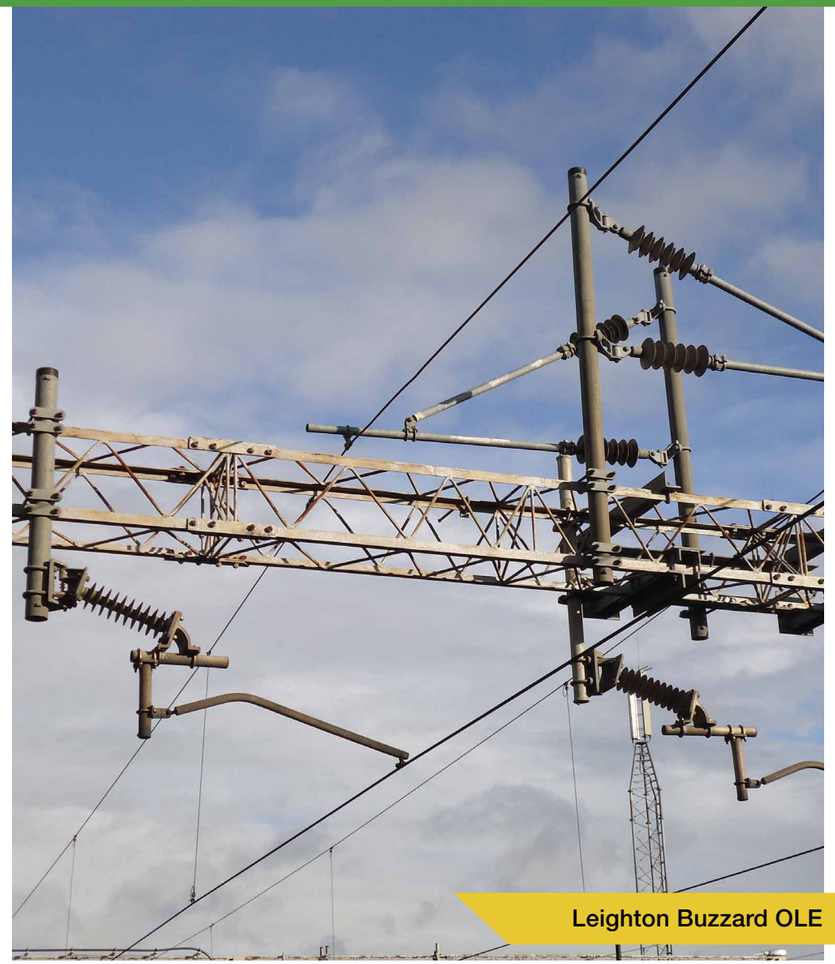
Pod-Trak

RAILWAY
ELECTRIFICATION

As part of the AFA (Access for All) modifications at Leighton Buzzard Station, a new walkway bridge over the West Coast Main Line was installed across four tracks to provide access to all platforms.

To facilitate these works, Pod-Trak were subcontracted to design, supply and install new foundations, structures, SPS, headspans, wire splicing and re-profiling of the OLE through the bridge.

All works were carried out during possession/ isolation periods and necessary arrangements were put in place to protect the public during foundation installation.



Leighton Buzzard OLE

Manchester Metrolink Substations

Pod-Trak

RAILWAY ELECTRIFICATION

CIVIL ENGINEERING

PSP POWER SUPPLY PROJECTS

"New substations on the Bury & Altrincham lines"

Whitefields Substation

DESIGN
CIVILS SCOPE
OLE SCOPE

APRIL 2017 - DECEMBER 2017

VALUE
£700K

MANCHESTER

Manchester Metrolink Substations

Pod-Trak

RAILWAY ELECTRIFICATION

CIVIL ENGINEERING

Brooklands Substation

To cope with the electrical demands of increased traffic on both the Altrincham and Bury lines, a new substation was built on each line to provide additional power for the Trams.

Pod-Trak carried out a multi-discipline scope at each site by completing the design and installation of both the Civils and OLE at Brooklands on the Altrincham Line and Whitefield's on the Bury Line. The new substations were located within existing car parks. Careful planning and consideration had to be taken daily for the public who were using the station.

The installation works were similar at each site and included piling, substation bases, DNO bases, OLE bases, buried duct routes, UTX's, trough routes, fencing, paving, Armco barrier, bollard installation and landscaping on Civils.

OLE scope consisted of steel installation, section insulators, GMI installation, bypass isolators, HV feeds, impedance bonding and section proving.

Compound works were all carried out on days while trackside works were delivered over a series of weekend disruptive possessions and midweek engineering hours. OLE foundations were precast at the depot and installed on site with OTP to assist with time constraints.

Manchester Metrolink Phase 3 OLE

Pod-Trak

RAILWAY
ELECTRIFICATION

Brecknell Willis
A Wabtec company

"Electrification of the new Phase 3 extensions across Greater Manchester"

East Didsbury Line

61KM TWIN TRACK ELECTRIFICATION

NOVEMBER 2010 - JULY 2014

VALUE
£8.2M

MANCHESTER

Manchester Metrolink Phase 3 OLE

Pod-Trak

RAILWAY
ELECTRIFICATION

Oldham Rochdale Line

Pod-Trak were contracted by Brecknell Willis & Co to install all of the overhead line equipment (OLE) including Traction Power on the Phase 3 extensions to the Manchester Metrolink.

This links the City Centre to Manchester Airport, Didsbury, Ashton, Media City, Oldham, Rochdale and the new tram depot at Trafford.

Works included tying the new OLE into the existing phase 1 and 2 lines over a series of disruptive possessions, and the construction of new OLE over the new track bed.

The Tramway OLE was varied in its construction, ranging from autotensioned traditional catenary systems over segregated areas, to fixed termination trolley wire systems within the public areas. The extensions included many complex OLE layouts over road junctions and pedestrianised areas.

The overhead line works were the largest ever undertaken in a UK light rail environment.

North West Electrification (NWEP) Phase 2

RAILWAY
ELECTRIFICATION

Balfour Beatty

"New electrification on Phase 2a, 2b and 2c of the North West Electrification Project"

Phase 2c Salford

SERIES 2 OVERHEAD LINE EQUIPMENT

AUGUST 2014 - JULY 2015

VALUE
£1.8M

LIVERPOOL TO MANCHESTER

North West Electrification (NWEP) Phase 2

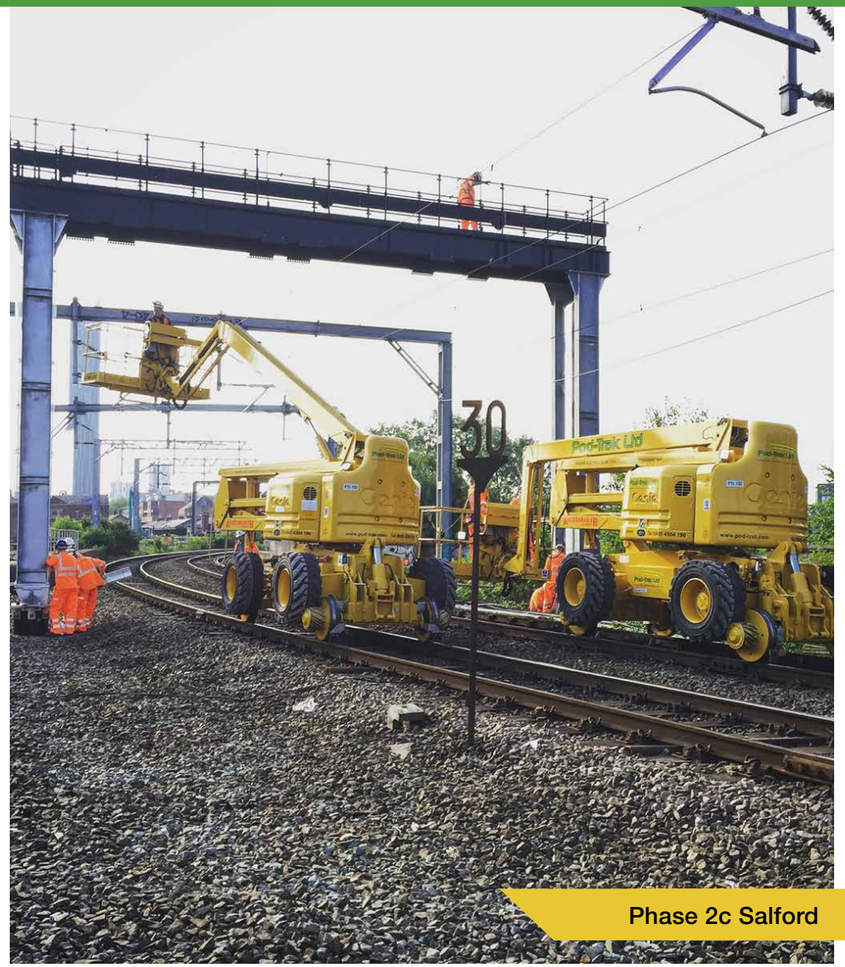
RAILWAY
ELECTRIFICATION

Pod-Trak were approached by Balfour Beatty Rail in July 2014 to assist with the installation of new OLE on the Liverpool to Manchester and Liverpool to Wigan routes.

The series 2 equipment was supplied free issue by BBR and installed by Pod-Trak teams working on our RRV MEWPs.

Core works included SPS installation, wiring and final registration.

Critical tie-ins to existing electrification at Edge Hill and the West Coast Mainline were all carried out by Pod-trak. All plant moves between sites were managed and carried out in-house.



Phase 2c Salford

Sandy Station Bedfordshire

RAILWAY
ELECTRIFICATION

SPENCER
British Engineering

"Following two years' experience on light rail this was Pod-Trak's first OLE project on Network Rail infrastructure"

New headspan installation

MAIN STEEL
NEW HEADSPANS
REGISTRATION
REDUNDANT REMOVALS

APRIL 2012 -
AUGUST 2012

VALUE
£100K

BEDFORDSHIRE

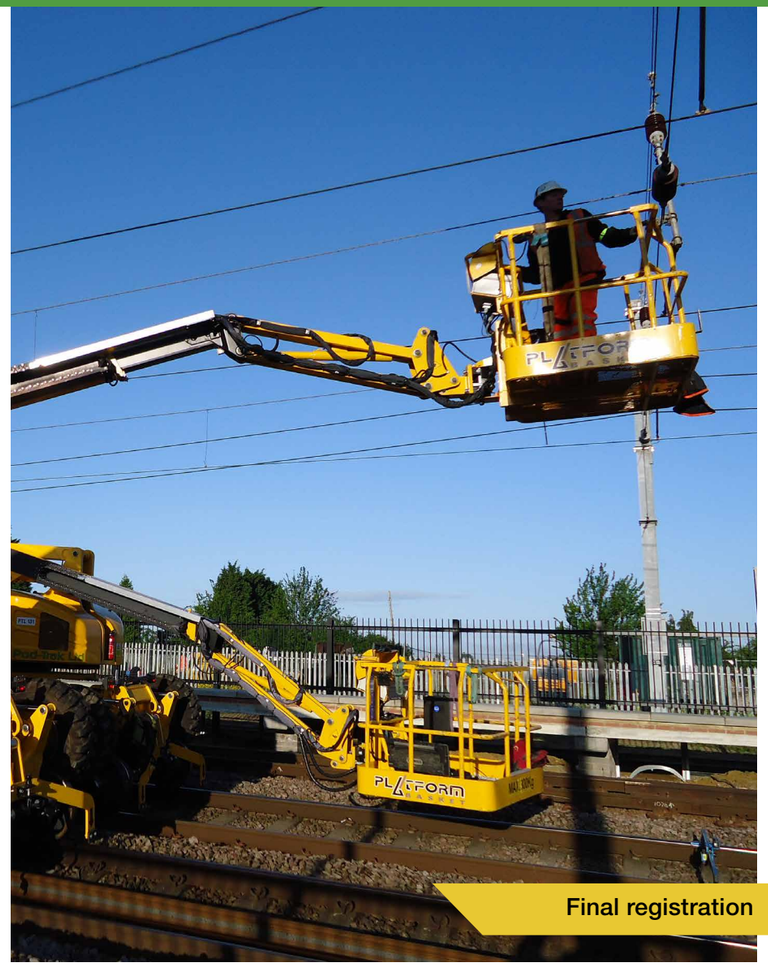
Sandy Station Bedfordshire

RAILWAY
ELECTRIFICATION

The main contract works were carried out by Spencer Group to extend the platforms at Sandy Station in Bedfordshire on the East Coast Mainline. Pod-Trak were subcontracted to carry out all the OLE works necessary to facilitate the platform extensions.

The existing masts on the up slow had to be removed and new masts installed one meter along the track. Both headspans had to be transferred to the new masts while retaining the existing heights and staggers across all four lines.

All works were successfully completed and handed back on time. This was the first OLE project Pod-Trak carried out on Network Rail Infrastructure after many years on light rail projects.



Final registration

Swansea Maliphant Intercity Express Depot (Hitachi)

RAILWAY
ELECTRIFICATION

VolkerFitzpatrick

"South Wales main line depot operated by Hitachi Rail Europe"

Main steel installation

MAIN STEEL
SPS
SWITCHING
HEADSPANS

MAY 2015 - JULY 2015

VALUE
£750K

SWANSEA

Swansea Maliphant Intercity Express Depot (Hitachi)

RAILWAY
ELECTRIFICATION

Pod-Trak were contracted to supply and install all the OLE required to electrify the Hitachi-operated depot at Swansea. Works included the supply and installation of transfer plates, structures, SPS, headspans, switching and bonding.

The installation of the contact wire was omitted from the scope to reduce the risk of theft, as the depot will not go live until the Great Western Electrification reaches Swansea. Works also included the installation of structures along the NWR main line. With careful planning and communication between Pod-Trak, the client and Hitachi, the depot remained operational throughout the installation programme.

In 2018 Pod-Trak returned to site to remove the SPS as it is now unlikely that electrification will reach Swansea.

Main steel installation

Swansea Depot Civils

CIVIL ENGINEERING

VolkerFitzpatrick

“Depot remodelling to facilitate the re-fuelling of bi-mode trains.”

UTX installation

HITACHI OPERATED DEPOT

OCTOBER 2017 – AUG 2018

VALUE **£1.5M**

SWANSEA

Swansea Depot Civils

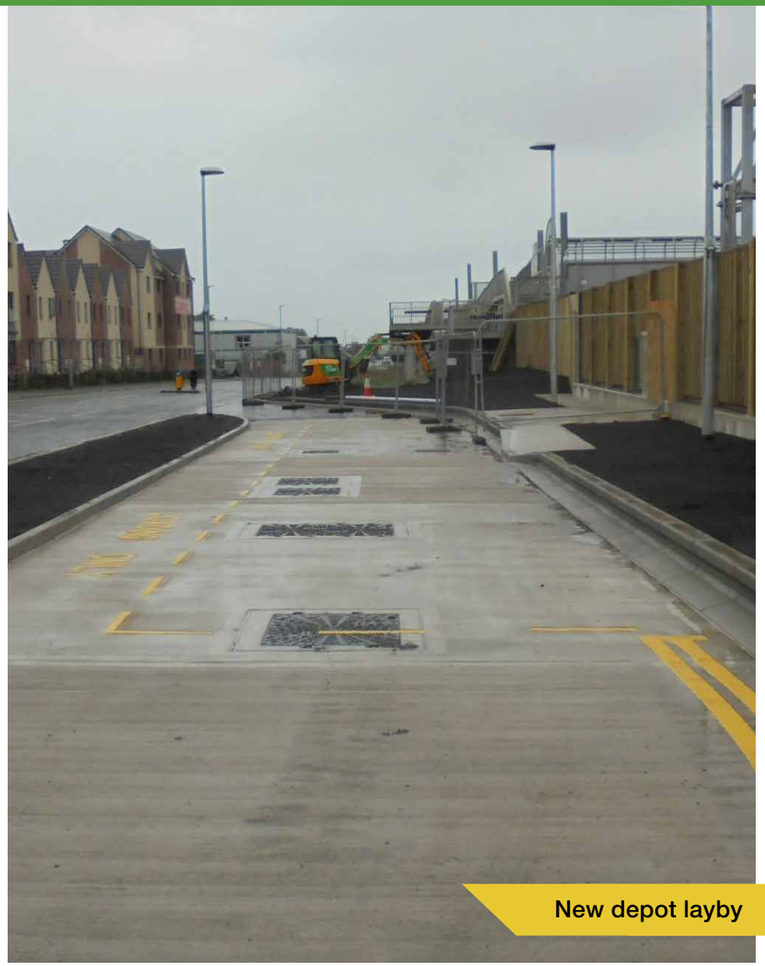
CIVIL ENGINEERING

Pod-Trak were contracted to carry out all the civils modifications within the depot that were necessary to facilitate the maintenance and use of bi-mode trains being used on the Great Western Main Line.

The scope of works included UTX’s, drainage, walkways, HV cable routes, concrete bases, a new layby and retaining structures. All works were carried out on midweek days with careful planning to ensure the depot remained operational at all times.

Deep excavations with poor ground conditions throughout the depot posed a constant challenge to the project team. Temporary works design and controls were key to making sure our teams and others within the depot were not put in any danger during the construction phase.

Works were facilitated by the use of in-house on track plant to move materials through the depot on a daily basis.



New depot layby