

**ANCHOR  
SYSTEMS**  
(INTERNATIONAL) LTD

# Quick Stages



Tel : 01342 719 362  
[www.anchorystems.co.uk](http://www.anchorystems.co.uk)

Have any questions?

01342 719 362

# The System

Anchor Systems' LOC (Location Cabinet) Stage represents a groundbreaking engineering solution that revolutionises railway infrastructure maintenance and access. Meticulously designed to address the complex challenges faced by rail engineers, these advanced platforms provide a comprehensive, safe, and efficient approach to managing critical railway infrastructure components.

Our LOC Stages are engineered to provide secure housing and optimal access for an extensive range of railway-critical equipment, including:

- Signalling Systems
- Switchgear Installations
- Communications Networking Equipment
- Electrical and Power (E&P) Infrastructure

Unlike traditional access solutions, these GRP (Glass Reinforced Plastic) platforms offer an unprecedented combination of safety, efficiency, and environmental sustainability. Developed through intensive collaboration with railway engineering experts, each LOC Stage represents a pinnacle of modern infrastructure design.





## Anchor Screw

Made in the UK from 100% recycled steel, Anchor Systems' Anchor Screw pile is available with 2m length pile adaptors. The typical length for this type of project is 4m.

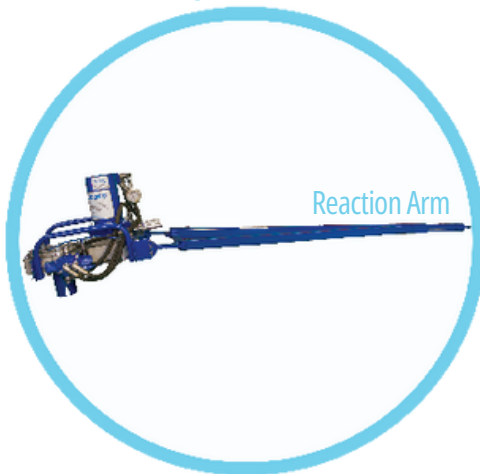
## Adjustable Interface Plate

The pile interface plates can be adjusted vertically and allows slight rotation, ensuring the stages are perfectly level once connected.

## Handheld Installation

Our hand-held installation method is portable, lightweight and produces no hand-arm vibration syndrome (HAVS) during use. The torque head has a zero dB reading and the power pack measures 88dB at two metres, making this the ideal solution for night shift work and use in noise sensitive areas. Additionally no concrete is required, no need for RRV's and no OLE isolation. All equipment can be transported with just track trollies.

## Torque Head



## Power Pack



# Key Advantages

## ✓ Rapid Deployment Capabilities:

- Complete installation possible in just 1-2 shifts, dramatically reducing project timelines.

## ✓ Unparalleled Safety Engineering:

- Non-slip surface design
- 100% non-conductive working environment
- Compliant with Network Rail specifications
- Meets DDA & Equalities Act requirements.
- Minimises risk of slips, trips, and falls

## ✓ Exceptional Flexible Design:

- Available in standard single and double configurations
- Fully customisable to meet specific project requirements.
- Adaptable to diverse terrain, including challenging railway embankments.

## ✓ Advanced Installation Technology:

- Precision screw pile adaptors for effortless levelling
- Lightweight, portable installation equipment
- Zero hand-arm vibration syndrome (HAVS) during setup



## ✓ Environmental Sustainability:

- 73% embodied carbon reduction (stats based on an environmental report produced for an installation of Anchors at Hither Green)
- Equivalent to 13,920 kg CO<sub>2</sub>e savings
- 89.4% material efficiency
- 100% UK manufacturing using local materials
- No concrete usage or wet trades required.

## ✓ Long-Term Performance:

- Minimum design life of 50 years
- Potential extended service life up to 100+ years
- Zero ongoing maintenance requirements
- Resistant to environmental degradation

## ✓ Significant Economic Benefits:

- Up to 60% cost reduction (compared to traditional methods, saving increases with every shift avoided due to our rapid installation – generally the piles and adaptor plates are installed in one shift, with the staging being installed on the following shift)

## ✓ Significant Economic Benefits:

- Up to 60% cost reduction (compared to traditional methods, saving increases with every shift avoided due to our rapid installation – generally the piles and adaptor plates are installed in one shift, with the staging being installed on the following shift)
- Derived from a combination of:
  - Man-hour savings during installation
  - Elimination of plant requirements entirely
  - Reduced operational possession times



The LOC Stage represents a pinnacle of engineering precision, integrating multiple advanced technologies to deliver exceptional performance. The foundation system combines extendable Anchor Screw Piles with adjustable pile adaptor plates, creating a solution that adapts to slopes up to 40 degrees, even in poor ground conditions.

## Key Performance Characteristics:

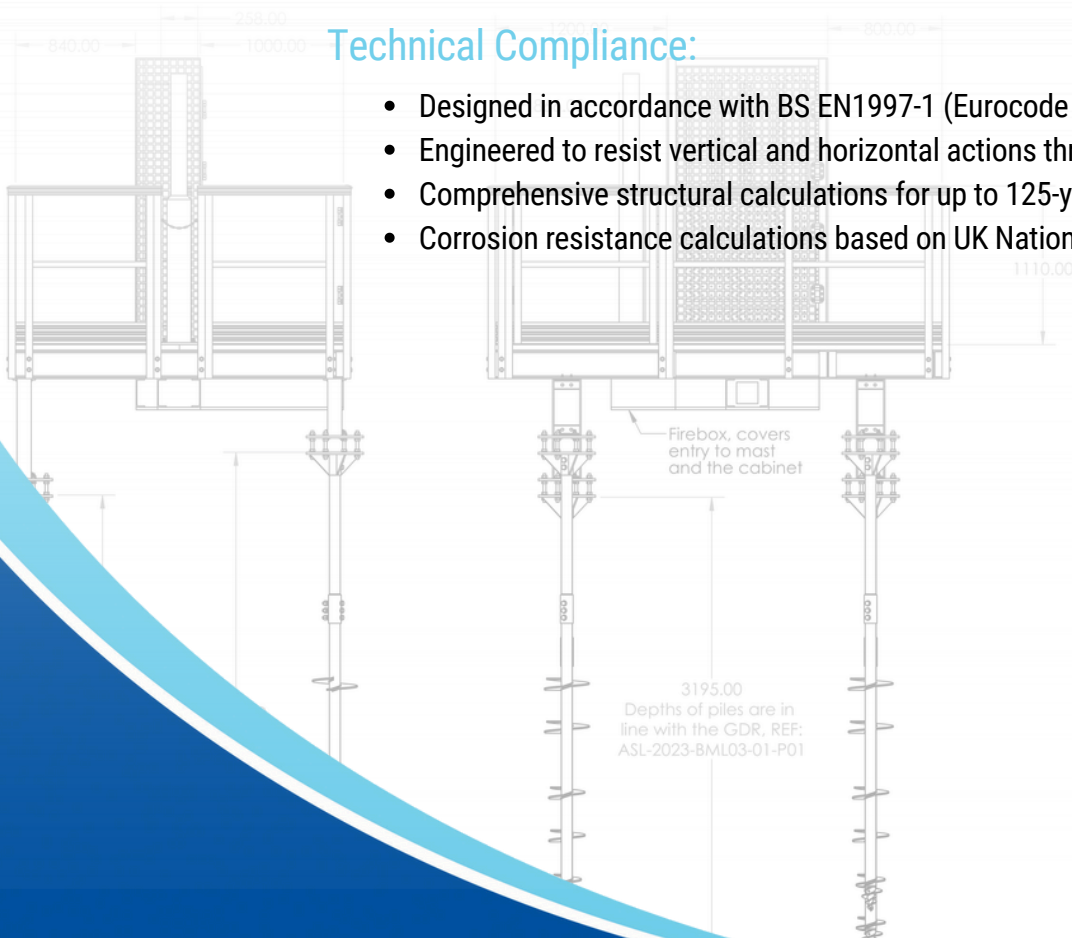
- Vertical Adjustment Capability: Enables perfect levelling on uneven surfaces.
- Slight Rotation Functionality: Ensures stability on steep slopes and complex terrains.
- Prefabricated Design: Delivered flat-packed for easy transportation.
- Rapid Site Deployment: Fully operational within 2 hours of arrival

## Material Specifications:

- Constructed from Safe Deck® GRP.
- Sub-structure, flooring, and handrails entirely fabricated from Glass Reinforced Plastic
- Inherent material properties include:
  - Slip-resistance
  - Chemical resistance
  - Fire resistance
  - UV stability
  - Lightweight durability
  - No rusting, fading, chipping, or rotting.

## Technical Compliance:

- Designed in accordance with BS EN1997-1 (Eurocode 7)
- Engineered to resist vertical and horizontal actions through our Anchor Screw Piles
- Comprehensive structural calculations for up to 125-year service life
- Corrosion resistance calculations based on UK National Annex standards.



- Anchor Screw Piles Installation Notes
1. STEEL GRADE IS S275/S255JR TO BS EN10025-2
  2. GALVANISED TO BS EN ISO1461 WITH MEAN COATING OF 140µm
  3. DEBURR AND BREAK ALL SHARP EDGES
  4. FIELD WELDS FOR ANY GALVANISED ITEM IS NOT PERMITTED
  5. ALL HDG FASTENERS GALVANISATION SHALL BE 40µm AVERAGE

DATE	DESCRIPTION OF CHANGES	REV
18/12/23	CREATED	1
20/12/23	UPDATED TO REFLECT GDR	2

DWG TITLE: Downbank Single Staging (GA - Solution 2/3)

DWG NO: 5717\_107 REV2

PROJECT: DAS ANTENNA UPGRADE

PROJECT NO: 5717 CLIENT: CIRCE/CELLINEX

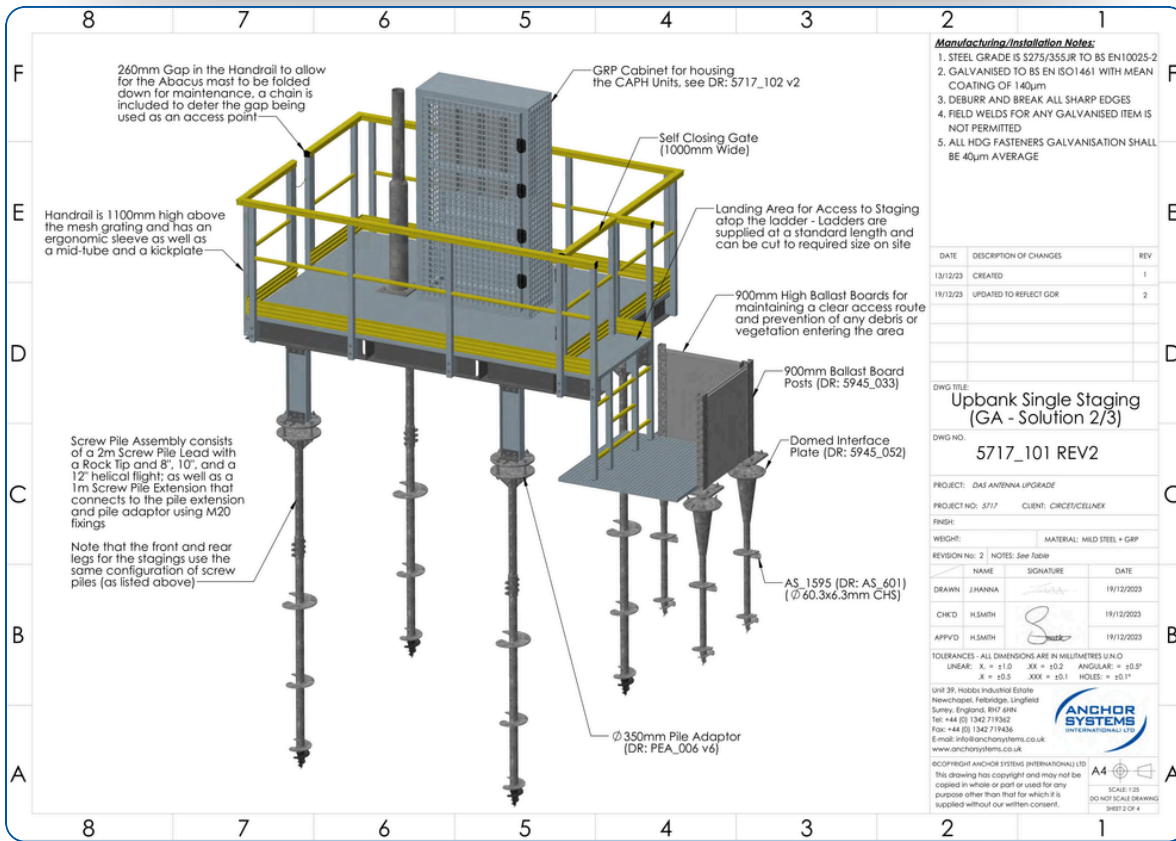
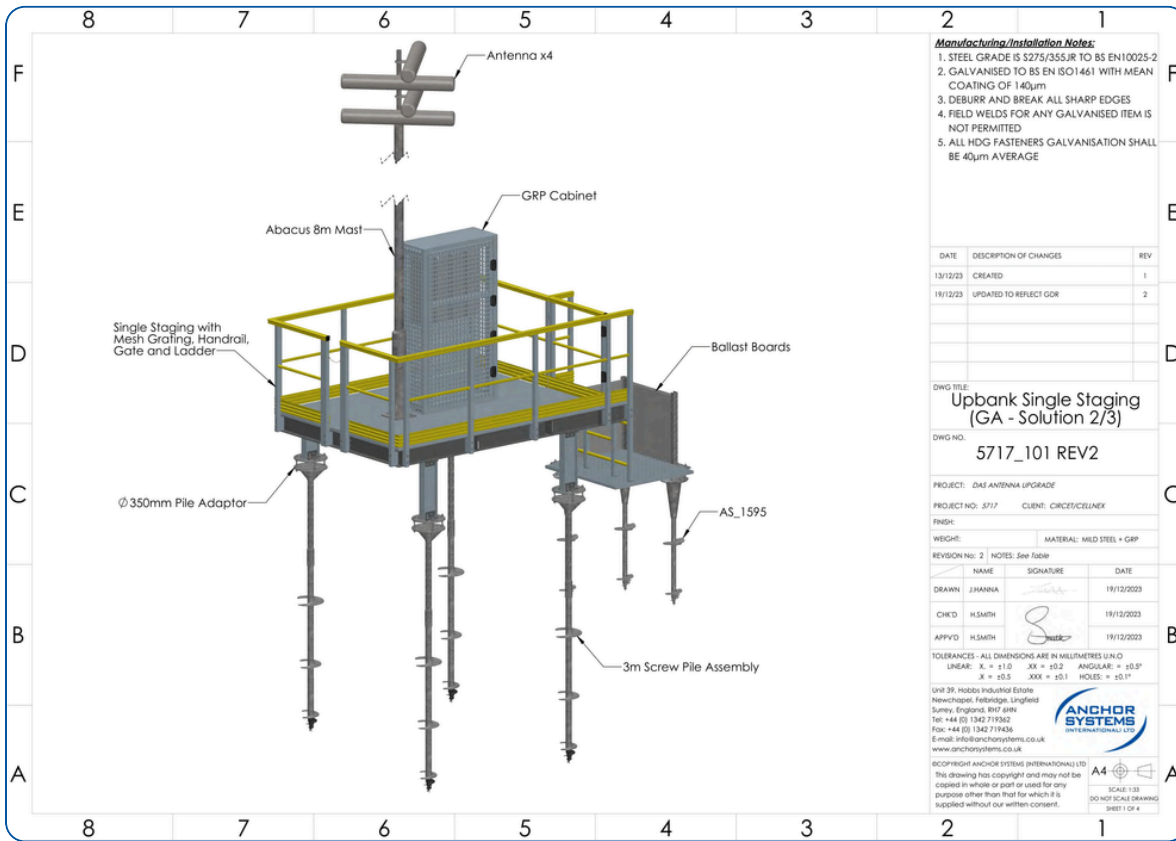
FINISH: MATERIAL: MILD STEEL + GRP

REVISION No: 2 NOTES: See Table

NAME	SIGNATURE	DATE
DRAWN: J.HANNA		20/12/2023
CHK'D: H.SMITH		20/12/2023
APP'VD: H.SMITH		20/12/2023

TOLERANCES - ALL DIMENSIONS ARE IN MILLIMETRES U.N.O  
 LINEAR: X = ±1.0 .XX = ±0.2 ANGULAR: = ±0.5°  
 X = ±0.5 .XXX = ±0.1 HOLES: = ±0.1"

# System Drawings



Have any questions?

01342 719 362

# Installation



Installation  
Video





# Installation Benefits



- Zero RRV's
- Zero Isolations
- Zero Planning or Coordination for OTM's
- All equipment can be transported with track trollies
- No heavy machinery, all installed with lightweight, hand-held equipment



Have any questions?

01342 719 362

# Project Report

DESIGNER

GGP Consult, Linbrooke Services, Anchor Systems (International) Ltd

CLIENT

Network Rail

CONTRACTOR

Linbrooke Services

INSTALLER

CSM Projects Ltd

Anchor Systems (International) Ltd were approached to design and supply a rapidly deployable, zero concrete and environmentally friendly ground anchoring solution and LOC Stage for location case platforms along railway embankments in Flitwick, Bedfordshire. This was required for Linbrooke Services' West Hampstead Life Extension (WHLE) Project, which was implemented as part of Network Rail's London North-Eastern & East Midlands Route Strategic Plan - to extend the life of lineside signalling assets between the Kentish Town and Bedford Interlocking areas.

## Solution

Working closely with CSM Specialist Projects, Anchor Systems created a bespoke and innovative solution. A design was developed for a prefabricated GRP stage that could be delivered to site already pre-assembled and connected directly to Pile Adapter interface plates on extendable Anchor Screws.

This system proved to be especially beneficial on this Network Rail project where the team were challenged with the task of installing on sloped railway embankments, with the presence of OLE's, facing imposed time constraints and all while taking a conscientious approach to reducing the carbon footprint.

As well as eliminating the need of OLE isolation, zero on track plant or RRV's were required and no concrete or wet trades were used. In addition, this installation method is portable, lightweight and produces no hand-arm vibration syndrome (HAVS) during use. The torque head has a zero dB reading and the power pack measures 88dB at two metres, making this the ideal solution for night shift work and use in noise sensitive areas.



# Linbrooke Quick LOC Stage



ANCHOR SYSTEMS (INTERNATIONAL) LTD  
Unit 39, Hobbs Industrial Estate, Felbridge,  
Lingfield, Surrey, England, RH7 6HN

Tel: +44 (0)1342 719 362  
Email: [info@anchorsystems.co.uk](mailto:info@anchorsystems.co.uk)  
Web: [www.anchorsystems.co.uk](http://www.anchorsystems.co.uk)



# Quick Stages

