

Cadmap Utility Mapping Surveys Supports Nationwide EV Charging Rollout with PAS 128 GPR Surveys at Petrol Stations

"Cadmap Delivers PAS 128 Utility and RICS Topographical Surveys Across UK Petrol Stations, Support Safe EV Charger Installations and Accelerate the UK's Goals"

LONDON, SURREY, UNITED KINGDOM, June 24, 2025 /EINPresswire.com/ -- As the UK accelerates its transition to electric vehicles, Cadmap Utility Mapping Surveys is playing a crucial role in supporting the safe and efficient installation of EV charging points at live petrol stations across the country. By carrying out PAS 128-compliant Ground Penetrating Radar (GPR) Utility Mapping Surveys, combined with detailed RICS-standard Topographical Surveys, Cadmap has delivered high-accuracy underground mapping for the location of electrical cables and buried infrastructure—enabling safe excavation and seamless site preparation.

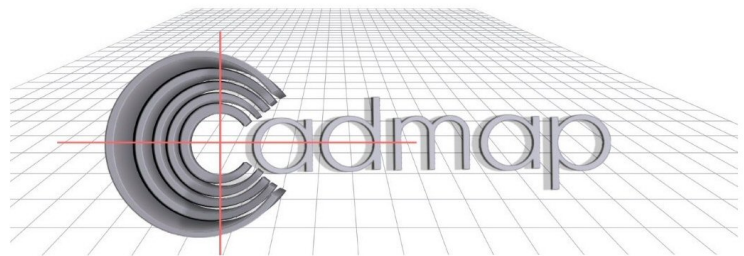
<https://utility-surveying.co.uk/>

With demand for electric vehicle infrastructure surging ahead of the 2035 ban on new petrol and diesel car sales, fuel retailers and energy providers are under pressure to convert forecourts into dual-use sites for both traditional fuel and EV charging. But installing new power infrastructure at existing petrol stations presents a range of challenges, especially around safety and buried services.

That's where Cadmap steps in.

<https://utility-surveying.co.uk/>

□ Mapping for Safety and Sustainability



Land Surveyors

Working with a range of national fuel brands and infrastructure contractors, Cadmap has surveyed hundreds of forecourts across the UK, from city centres to remote motorway service stations. Each survey project has involved a non-intrusive approach to locate and map critical underground utilities—such as electrical supply cables, fuel pipelines, and drainage routes—so that new EV charging points can be installed with minimal risk and disruption.

“Petrol stations are high-risk environments. Accurate mapping is non-negotiable when you're planning to excavate,” explained David, Senior Utility Surveyor at Cadmap. “Using PAS 128 methodologies and the latest GPR and GPS technology, we provide our clients with precise, comprehensive underground utility plans that allow them to move forward with confidence.”

□ PAS 128: The Gold Standard for Utility Mapping

Every Cadmap survey follows the PAS 128:2022 specification, the UK's benchmark standard for underground utility detection. This ensures consistent quality, reliability, and traceability in utility mapping. For each petrol station site, the process included:

“

“Accurately locating buried electrical cables and fuel infrastructure is absolutely vital when working on live forecourts,” said David, Senior Utility Surveyor at Cadmap.”

David

Type B Utility Detection (B2, B3, B4 Quality Levels)

Using GPR scanning and EML (Electromagnetic Locators) to detect, trace, and classify buried services.

Leica DS2000 GPR Technology

This dual-frequency ground penetrating radar enabled the team to visualise shallow and deep utilities in a single pass, even in areas with complex backfill or reinforced concrete.

Trimble R12i GNSS with IMU Tilt Compensation

Paired with real-time RTK correction, this system ensured utility and topographical features were captured with centimetric accuracy—even around obstructions like canopies, vehicles, or signage.

RICS Topographical Survey

Full 2D and 3D mapping of the site's physical layout, including kerbs, bollards, manholes, drainage inlets, fuel islands, buildings, and existing EV infrastructure.



PROVIDING DETAILED TOPOGRAPHICAL & UTILITY SURVEY SERVICES

ELEVATING YOUR PROJECTS WITH PRECISION...

- ✓ Topographical Land Surveys
- ✓ measured building surveys
- ✓ 3D Laser Scanning - BIM
- ✓ GPR utility mapping
- ✓ CCTV drainage surveys

ABOUT US.

Cadmap Limited is a professional geospatial land and utility surveying company, fully accredited, mainly specialising in Topographical Surveys, Measured Building Surveys and PAS128 Utility Mapping GPR Surveys.

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Land Utility Mapping

Together, the combined GPR utility mapping and topographical surveys enabled Cadmap to deliver comprehensive as-built plans, formatted in CAD and GIS deliverables suitable for planners, engineers, and contractors.

□ Working on Live Petrol Station Sites

A defining challenge of the project was conducting detailed surveys in active petrol station environments—sites that require strict safety protocols, minimal disruption, and quick turnarounds.

<https://utility-surveying.co.uk/utility-mapping-surrey>

Cadmap's experienced survey teams worked flexibly around site operations, often conducting early-morning or overnight surveys to avoid customer traffic and forecourt congestion. Coordination with site managers ensured that zones were safely cordoned off and that survey work met all fire safety and operational requirements.

"Our teams are trained for hazardous environments, so working on live forecourts is second nature," said David. "We use non-intrusive detection methods that don't require breaking ground, meaning there's no impact to site infrastructure or customer flow during survey work."

□ Deliverables That Drive Smarter Decisions

Beyond safety, the surveys provide a critical foundation for smarter infrastructure planning. Cadmap delivered:

2D Utility Plans showing horizontal alignment and depths of services

Topographical Surveys in CAD/DWG and PDF <https://utility-surveying.co.uk/utility-mapping-surrey>

Utility Conflict Reports to highlight potential issues between new EV cabling and existing utilities

3D Utility Models for use in BIM workflows or infrastructure simulations

This level of detail allows civil engineers, EV charging contractors, and energy consultants to optimise trench locations, reduce cable clash risk, and streamline build schedules—saving both



GPR Survey DS2000

time and cost.

▣ Nationwide Coverage, Local Expertise

From Glasgow to Guildford, Bristol to Birmingham, Cadmap has delivered survey services at petrol stations in every region of the UK, thanks to its expanding network of survey teams and streamlined workflows.

“We’ve built a reputation for reliability, speed, and technical excellence,” said a Cadmap project manager. “Clients come to us because they know we understand both the big picture—supporting the UK’s EV infrastructure transition—and the fine detail, like avoiding a power outage at a working petrol station.”

<https://utility-surveying.co.uk/gpr-surveyors>

▣ Cadmap Utility Mapping Services Include:

PAS 128 Utility Mapping Surveys

GPR, EML, and desktop records review for accurate service detection.

RICS Topographical Surveys

High-definition mapping for all external features, compliant with RICS guidance.

GPR Void and Structure Detection

Ideal for locating tanks, voids, slabs, and foundations beneath built environments.

BIM and 3D Modelling of Utility Infrastructure

Risk & Safety Mapping for Excavation Planning

▣ Powering the Future of Infrastructure

Cadmap’s work is helping fuel stations transform into future-ready energy hubs. As the UK expands its EV charging network, the role of precise utility mapping becomes even more critical—not just for safety, but for speed, cost efficiency, and long-term sustainability.

Whether planning a new EV charger, expanding a substation, or redesigning a forecourt, Cadmap’s surveying expertise ensures that no decision is made blindly.

<https://utility-surveying.co.uk/gpr-surveyors>

▣ Contact Cadmap

To find out more about Cadmap’s nationwide utility and topographical survey services for EV infrastructure and beyond, contact:

▣ 01483 429385

▣ info@cadmap.co.uk

□ <https://utility-surveying.co.uk>

#cadmap #PAS128 #GPR #utilitymapping #toposurvey #EVinfrastructure #EVcharging
#safeexcavation #forecourtsurvey #LeicaDS2000 #TrimbleR12i

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