



Oak Archaeology Wales CIC

Ruperra Home Farm Roman Military–Funerary Complex

EXECUTIVE SUMMARY REPORT

The Ruperra Home Farm landscape represents a large, highly organised, and multi-functional complex of Roman character, extending approximately 1.5 km × 788 m (~118 ha). Recent discoveries—including refined perimeter measurements, newly identified structural alignments, and the confirmation of a substantial 65 m × 780 m operational corridor at the south-west end—have dramatically expanded understanding of the site’s internal hierarchy.

The settlement exhibits a complete and coherent gate system, including:

- A monumental SW gate (22 m – 15 m – 22 m), fully measured.
- A likely paired NE monumental gate, mirroring the SW.
- A major E–W secondary gate (12–12–12 m).
- Multiple auxiliary service gates (12–8–12 m).

Building densities indicate a major planned settlement. Approximately 170+ buildings are already detected, but the true total likely exceeds 300 buildings, particularly due to the high archaeological potential of extensive unsurveyed woodland. These internal woodland zones, untouched by modern agricultural disturbance, likely contain additional barracks, workshops, depots, drainage systems, and administrative structures.

Two major accommodation zones have now been differentiated:

- NE Sector: ~48 barrack blocks — forming the primary residential/military district.
- SW Sector: ~24 barrack blocks, arranged within a 630 m × 85 m band, serving as a secondary/auxiliary habitation zone.

Crucially, between the SW barracks and the SW perimeter wall lies a newly confirmed 65 m × 780 m strip of internal ground. This area likely hosted workshops, supply depots, livestock yards, bath-houses, administrative units, and other industrial/logistical buildings.

A targeted GPR survey by Dr James Whittaker (Jackson Geo) over the cemetery/morgue area confirmed subsurface anomalies consistent with funerary and structural activity, validating the dowsed alignment predictions and demonstrating the strong potential of full-coverage geophysics.

Overall, the evidence strongly supports interpretation of Ruperra as a long-lived, highly planned Roman-style administrative, residential, industrial, and ceremonial complex. The site is of significant archaeological importance and warrants comprehensive geophysical survey, targeted excavation.

Ruperra Home Farm Roman Military–Funerary Complex

UPDATED PROJECT REPORT

– inc. Monumental Gate Discovery Nov 2025

1. Introduction

Recent field investigations at Ruperra Home Farm have revealed the presence of a large, highly organised rectilinear landscape exhibiting architectural and spatial characteristics consistent with a Roman multi-functional complex. Using a combined methodology of:

- dowsing-guided structural alignment detection,
- trundle-wheel measurement,
- visual and directional bearings,
- LiDAR cross-checking, small GPR survey and
- comparative analysis with Roman military and administrative sites,

it is now clear that the site extends approximately 1.5 km (NE–SW) by c. 788 m (E–W), giving a total controlled internal area of ~118 hectares.

This scale far exceeds that of a single auxiliary fort and corresponds more closely to a multi-zone planned installation with residential, ceremonial, industrial, administrative, and logistical sectors.

New discoveries—most notably the corrected 145 m SW perimeter measurement, the identification of a 65 m × 780 m internal margin, and the zoning of 48 NE barrack blocks and 24 SW barrack blocks—have allowed the internal layout to be modelled with increasing confidence.

2. Gate System and Perimeter Hierarchy

The enclosure contains a structured system of gate types, aligned with Roman norms of controlled access, hierarchy, and symmetry.

2.1 Type A — Monumental SW Main Gate (Measured)

Dimensions: 22 m — 15 m — 22 m

- The 15 m central bay allows a double-lane roadway (each 5.5–6.0 m), separated by a central supporting pier.
- The two 22 × 22 m flanking blocks likely served as multi-storey gatehouses or guard-barracks.
- Positioned at the SW end, this was likely the primary operational and logistical entrance.

2.2 Type B — Standard East–West Gate (Measured)

Dimensions: 12 m — 12 m — 12 m

- A major secondary entrance.
- A single metalled roadway (~5.5–6.0 m) with flanking structural cheeks.
- The 12 × 12 m blocks likely served as guard towers or minor gatehouses.

2.3 Type C — Auxiliary Service Gates (Measured)

Dimensions: 12 m — 8 m — 12 m

- Functional access for livestock, wagons, and supplies.
- Consistent with Roman controlled-access logistics gates.

2.4 Type D — Hypothesised NE Monumental Gate

Inferred dimensions: 22 m — 15 m — 22 m

- Mirrors the SW monumental gate.
- Located near the amphitheatre-like depression.

- Likely served ceremonial and large-capacity traffic.
- Defines a NE–SW axial pair, typical of Roman planning.

3. Identified and Expected Structures

Over 170 structural features have been identified through dowsing, measurement, GPR and LiDAR interpretation. On a site of this size and complexity, a total of 300 to 400 buildings is reasonable.

3.1 Confirmed or Expected Building Types

- Barrack blocks (NE & SW sectors)
- Infirmary/hospital blocks
- Granaries (horrea)
- Workshops (metal, wood, leather)
- Kitchens and canteens
- Livestock buildings & stables
- Storehouses (weapons, food, materials)
- Administrative offices
- Bath-suite complexes
- Parade & training grounds
- Ceremonial or religious structures
- Amphitheatre-related buildings

4. NE Sector — Primary Accommodation Zone (48 Barrack Blocks)

The north-east zone has the capacity and alignment for a large, planned barrack district.

4.1 Barrack Capacity

- Approx. 48 barrack blocks are expected in this sector.

- Arranged in multiple rows within an 105 m E - W band with large depth to the north.
- Supported by canteens, kitchens, armouries, possible bath suites, administrative rooms, and parade spaces.
- Proximity to the hypothesised NE monumental gate and amphitheatre suggests this was the main troop and staff habitation quarter.

5. SW Sector — Secondary Barrack Zone (24 Barrack Blocks)

The South- West barrack band extends for 630 m N–S and 85 m E–W.

5.1 Barrack Composition

- A total of 24 suspected barrack blocks are situated within this long rectilinear run.
- There is a standard 20 m spacing between the infirmary/hospital structures and the start of the barrack line.
- Total functional band = 85 m (barracks + canteen) + 20 m (spacing) = 105 m.

5.2 SW Sector Role

Compared to the NE zone, this is a smaller accommodation area, likely serving:

- Auxiliary personnel
- Logistics staff
- Operational detachments
- Short-term or rotating units

6. Newly Identified SW Margin — 65 m × 780 m Operational Zone

Beyond the SW barrack band lies a substantial margin - 65 m x 780 m of internal space between the barracks and the SW perimeter wall.

6.1 Likely Uses

Based on Roman spatial norms, this unsurveyed zone could have contained:

- Workshops & craft areas (metal, wood, leather)
- Supply and food depots

- Bath-house complex (requires spatial isolation)
- Administrative annexes
- Large holding yards for livestock or wagons
- Parade, drill, or staging grounds
- Material-processing yards linked to Craig Ruperra quarry stone

This area represents one of the highest potential zones for future discoveries.

7. Internal Woodlands — High Archaeological Potential

Large areas of the enclosure consist of unsurveyed internal woodlands. These areas are particularly valuable because:

- They preserve buried features that would have been destroyed by ploughing.
- They remain unaltered by modern construction.
- Roman foundations, roads, culverts, and timber buildings likely survive beneath leaf litter and root systems.

7.1 Expected Woodland Structures

- Auxiliary barracks or temporary units
- Workshops and supply yards
- Religious or funerary structures
- Storage depots
- Aqueduct/man-made water management features
- Secondary road networks
- Animal handling compounds
- Additional residential quarters

7.2 Building Count Impact

With woodland included, the total building count may exceed 500 structures. making this one of the largest planned Roman-style complexes in Wales.

8. Geophysical Survey (GPR) by Dr. James Whittaker of Jackson Geo

A Ground Penetrating Radar (GPR) survey was undertaken by Dr. James Whittaker (Jackson Geo) across the morgue and cemetery sector of the enclosure. Although limited in spatial scope, the survey successfully:

- Detected subsurface anomalies consistent with cut features and structural remains.
- Identified possible grave cuts, soil disturbances, and patterning consistent with funerary zones.
- Confirmed that the cemetery/mortuary area holds archaeologically significant subsurface features that warrant expanded GPR coverage.
- Provided proof-of-concept that GPR is highly effective within the site and should be expanded across all major zones.

This targeted geophysical work demonstrates strong alignment with the dowsed and measured predictions, reinforcing the interpretation of the area as a designated mortuary and ceremonial sector.

9. Dowsing-Guided Discoveries**

Dowsing has successfully:

- Identified previously unknown structural alignments
- Confirmed road lines, building grids, and perimeter angles
- Revealed possible foundations in both woodland and open areas
- Indicated 20 - 40 extra buildings in the SW and central zones

This method provided the original alignment logic that was later confirmed by measurement.

9. Integrated Interpretation

- The enclosure represents a large, long-lived Roman-style landscape, not a single fort.
- Two monumental gates (SW measured, NE inferred) define a major axial route.
- NE zone contains a dense accommodation sector (48 barracks).

- SW zone contains a secondary barrack sector (24 barracks) plus a major operational strip (65 m × 780 m).
- Internal woodland almost certainly preserves additional structures.
- Estimated total: 300- 400.
- Functional zones include habitation, logistics, industry, administration, ceremony, storage, and amphitheatre-associated activity.

10. Recommendations

- Full-coverage GPR (woodland and SW strip as top priorities)
- Magnetometry for industrial signatures
- Targeted trenches (SW margin, NE accommodation core)
- Plan-based CAD/GIS reconstruction
- Submit findings to RCAHMW, GGAT/HER, NLHF, PCW, and museum partners
- Engage Newport Museum and Caerphilly Castle Museum for collaborative display and interpretation