

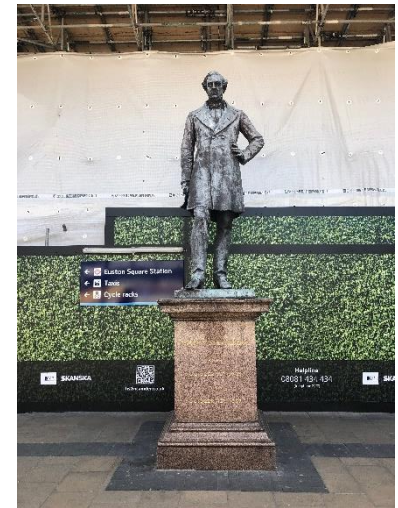


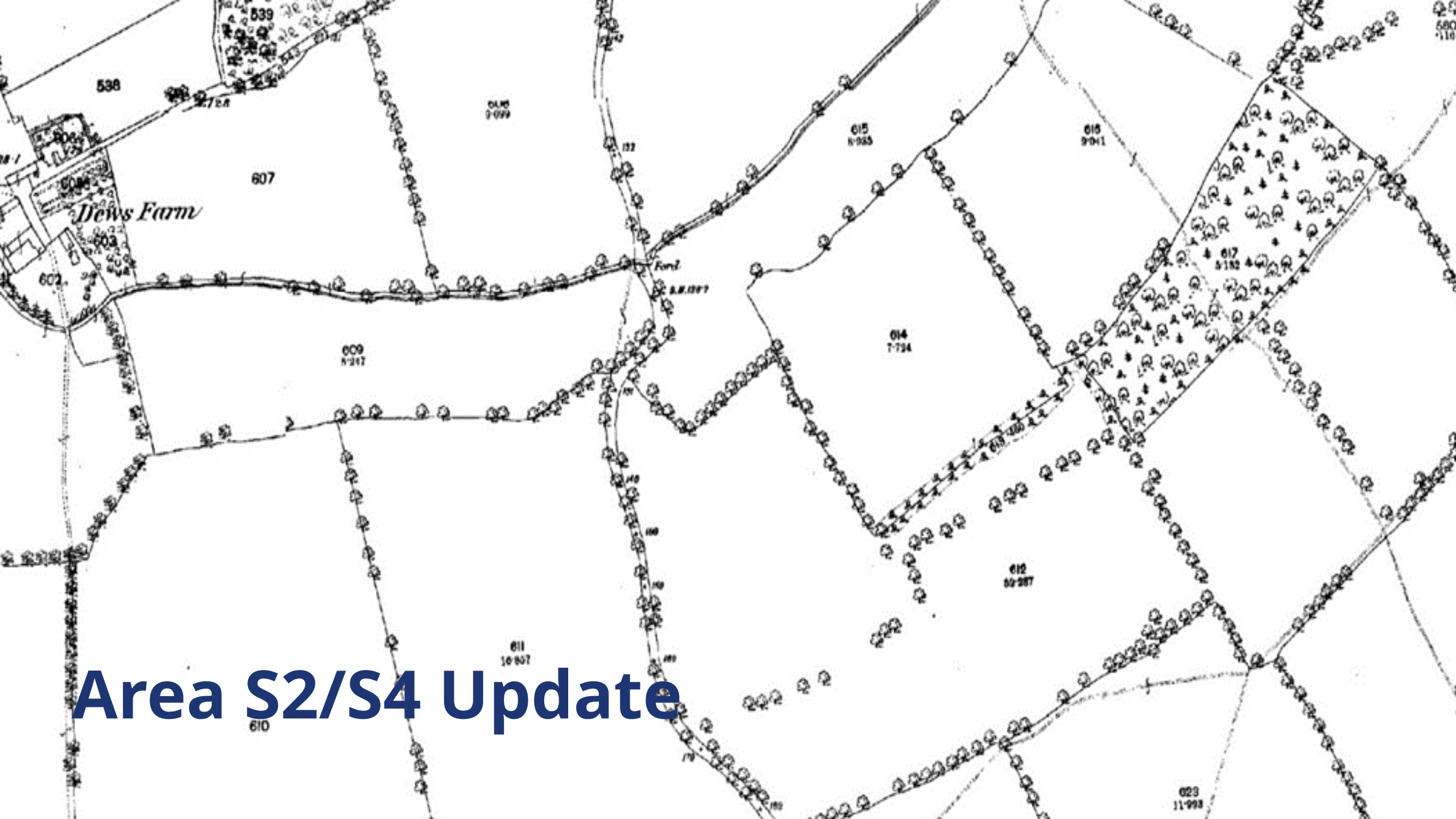
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# HS2 Enabling Works Area South Costain-Skanska JV



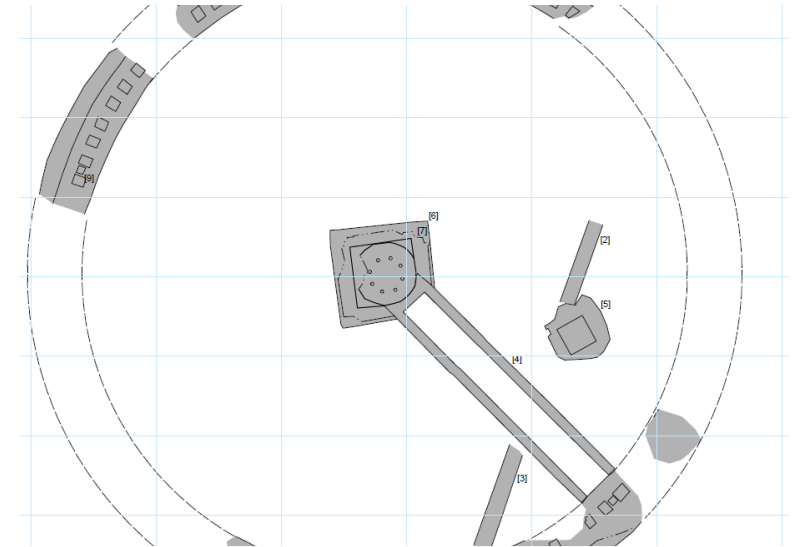


# Area S2/S4 Update

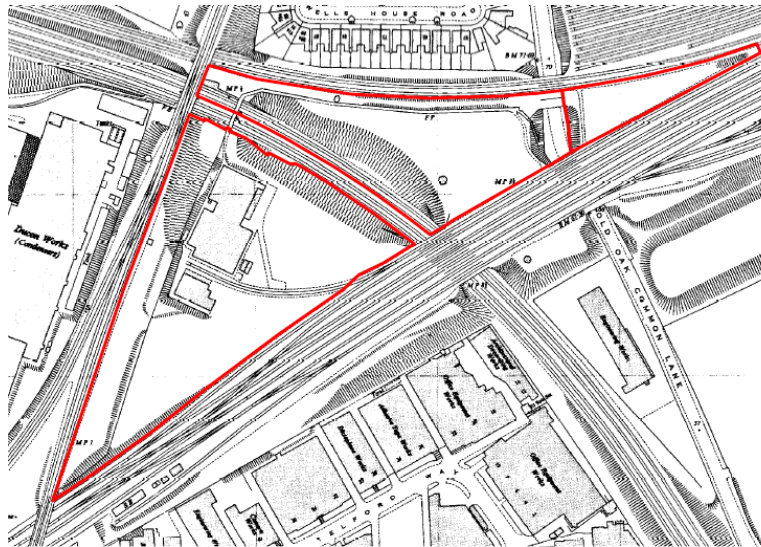
# Works Since December 2019



Setting Study - Highways Farm



Turntable 1 - OOC



Setting Study - OOC



Turntable 2 - OOC

# Forthcoming 2020

Continued Evaluation at WRGC TWU  
Diversion



Evaluation Excavation at Southern  
Sustainable Placement



Mitigation Newyears Green

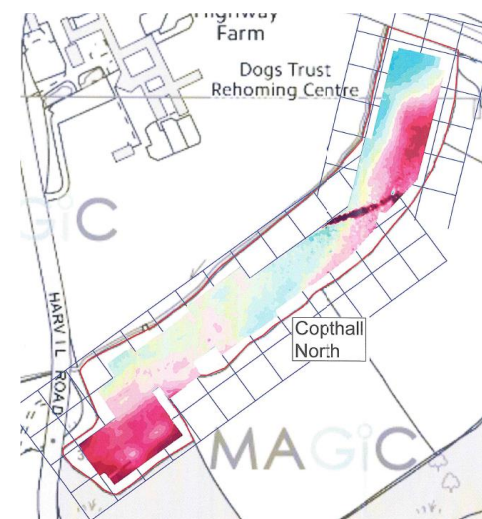


# Thematic Approaches

- **Geoarchaeological**
  - Brent, Pinn and Newyears Bourne
    - Pleistocene to Holocene Evolution of the Proto-Thames & Thames Catchment.
- **Landscape characterisation and Development**
  - Pleistocene - Late Post-Medieval
- **Medieval Manorial Studies**
  - Pynchester and Breakspear Manors

## Strategies

- Predictive modelling
- Landscape studies



# HERDS - Knowledge Creation Objectives

## LANDSCAPE and ENVIRONMENT:

**KC1:** refine understanding of the Palaeolithic potential of deposits beyond river valleys.

**KC2:** Explore the location of Palaeolithic deposits, reconstruct past environments and investigate the relationship between climate variation and phases of hominin activity

**KC3:** Develop a model of the deposits associated with the River Bytham, the proto- Thames and other pre-Anglian Rivers

**KC11:** Does the high density of prehistoric settlement evidence in the Colne Valley reflect a genuine focus of activity or does it reflect a bias in the archaeological record?

**KC14:** Identify sequences of environmental change for the Late Upper Palaeolithic-Early Mesolithic transition through investigation of sites in the Colne Valley and other locations along the route.

**KC23:** Identify evidence for late Roman occupation and attempt to identify any continuity in settlement patterns between the end of the Romano-British period and the Early Medieval period.

# HERDS - Knowledge Creation Objectives

## THE MEDIEVAL LANDSCAPE

**KC34:** Undertake research and investigation into medieval manorial complexes. What was their origin, development and impact in the landscape?

**KC36:** How were medieval and later woodlands managed and exploited and what evidence do they preserve of earlier use?

**KC40:** Identify patterns of change within medieval rural settlement from 11<sup>th</sup> to mid-14<sup>th</sup> century



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# How?

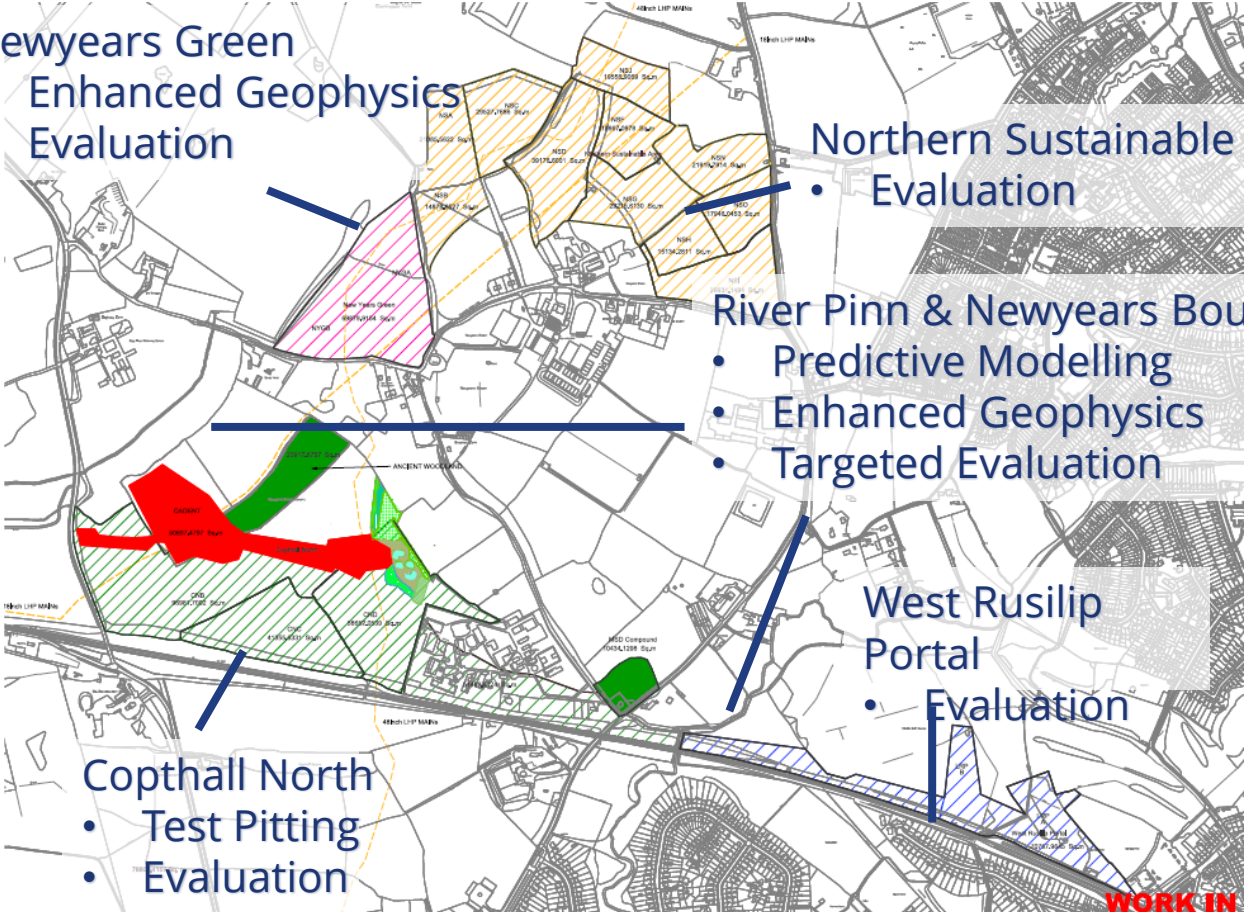
Newyears Green  
• Enhanced Geophysics  
• Evaluation

Northern Sustainable Placemen  
• Evaluation

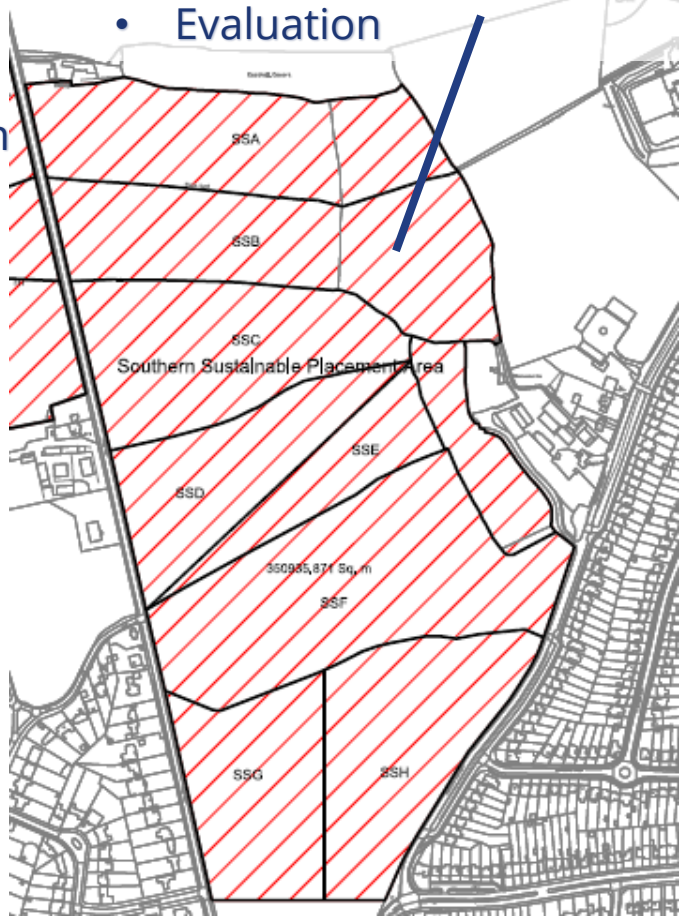
River Pinn & Newyears Bourne  
• Predictive Modelling  
• Enhanced Geophysics  
• Targeted Evaluation

West Rusilip Portal  
• Evaluation

Copthall North  
• Test Pitting  
• Evaluation



Southern Sustainable Placement  
• Evaluation





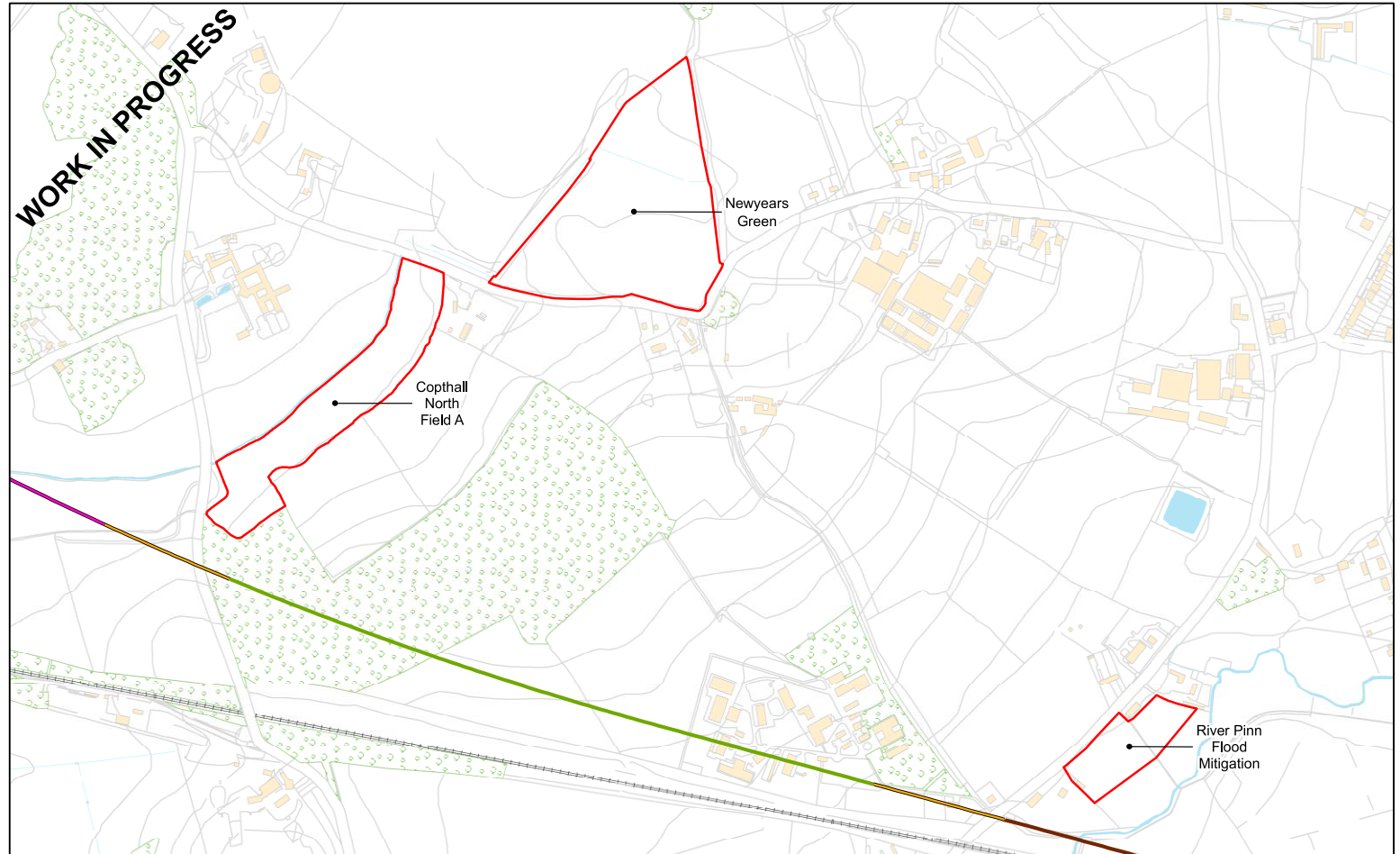


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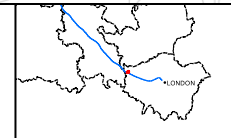


# Non-Intrusive Works : Targeted Geophysics



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**Legend**  
 Polygon\_Extent  
 Fields for Investigation  
 Phase One Final Preliminary Design alignment January 2017  
**Phase One**  
 Cutting  
 Embankment  
 Retaining Wall  
 Viaduct



High Speed Two  
 LS-WS1: Auger Survey on land  
 adjacent to the River Pinn  
 and the Newyears Bourne

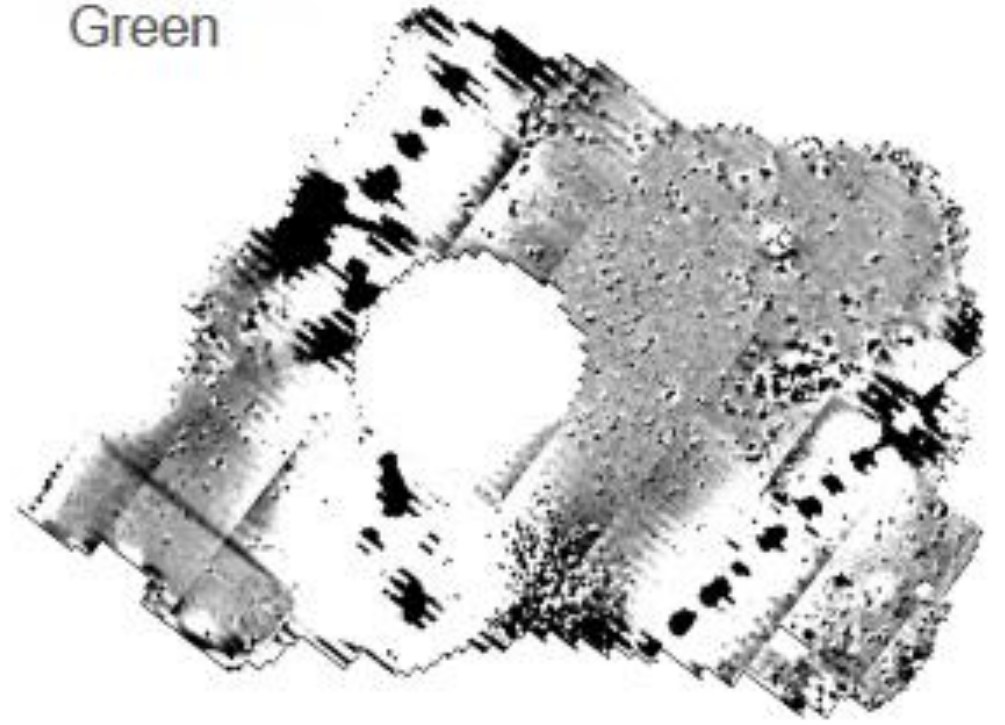
**HS2** Scale at A3: 1:5,000

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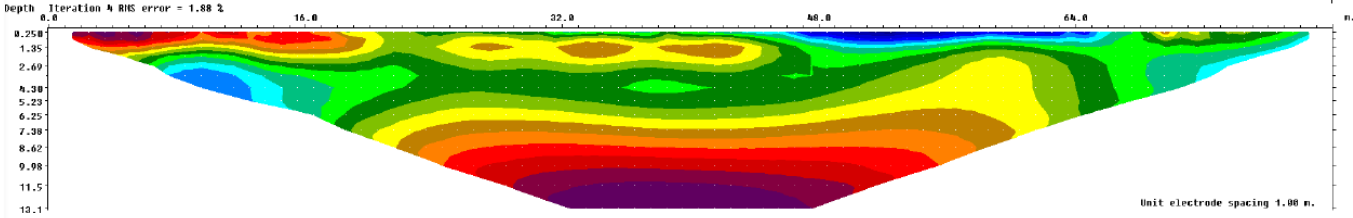
Published **Doc Number:** 1EW02-CSJ-EV-PRO-S002-000004 **Date:** 07/01/19

# Non-Intrusive Works Newyears Green

Green



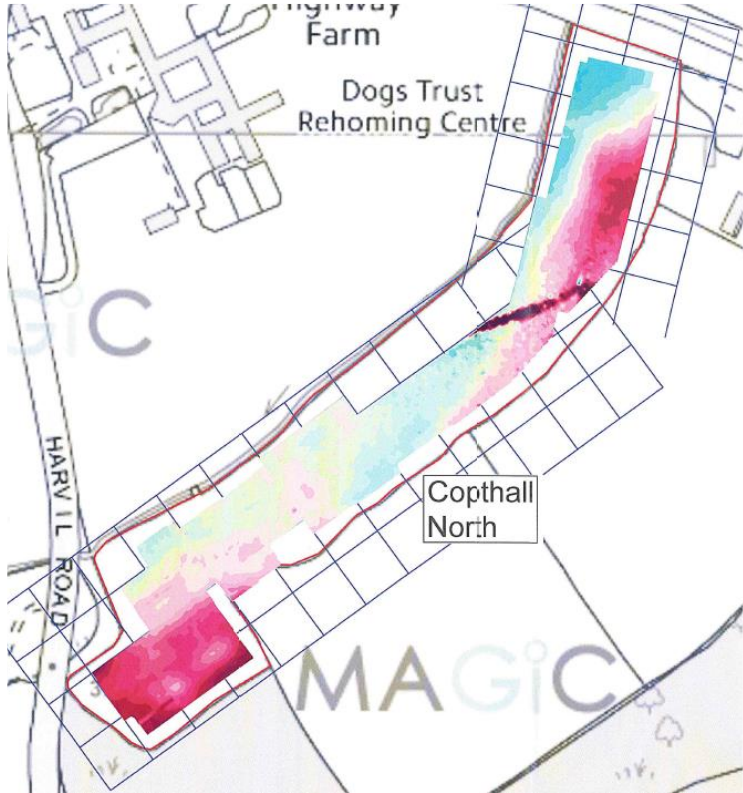
# Copthall North Prehistoric/Medieval



LiDAR



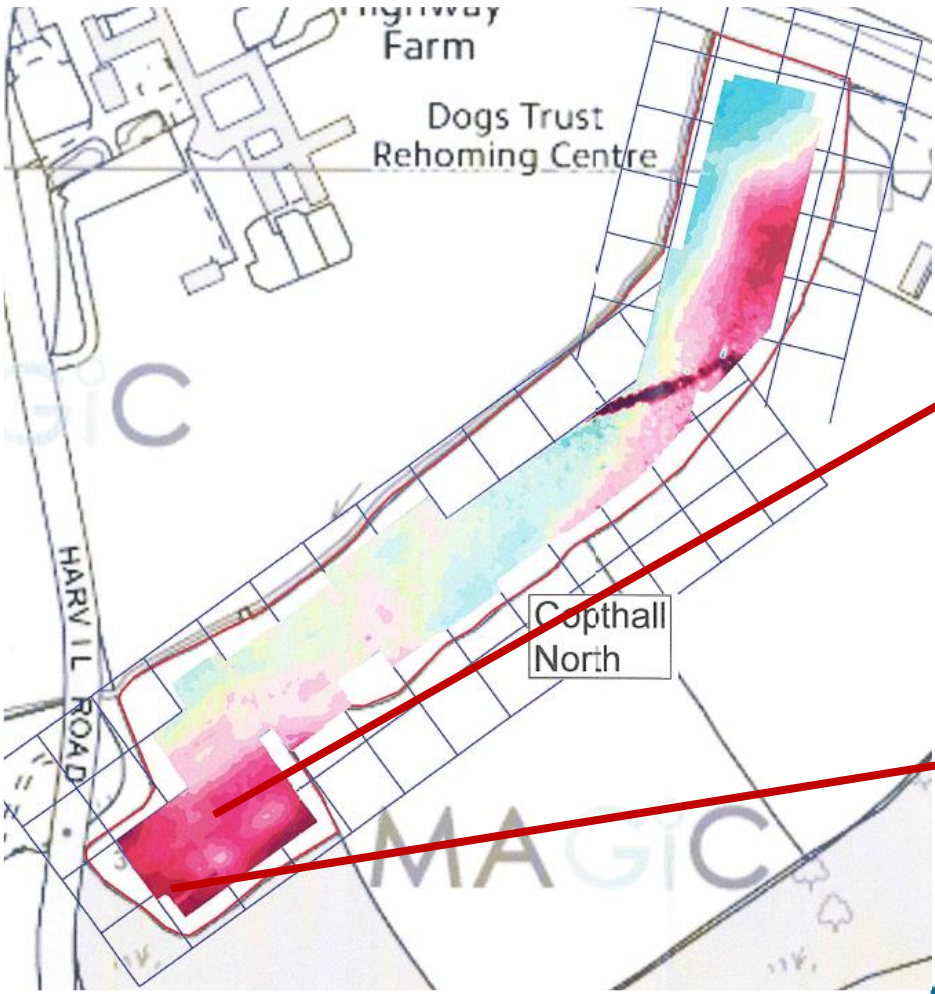
Geophysics



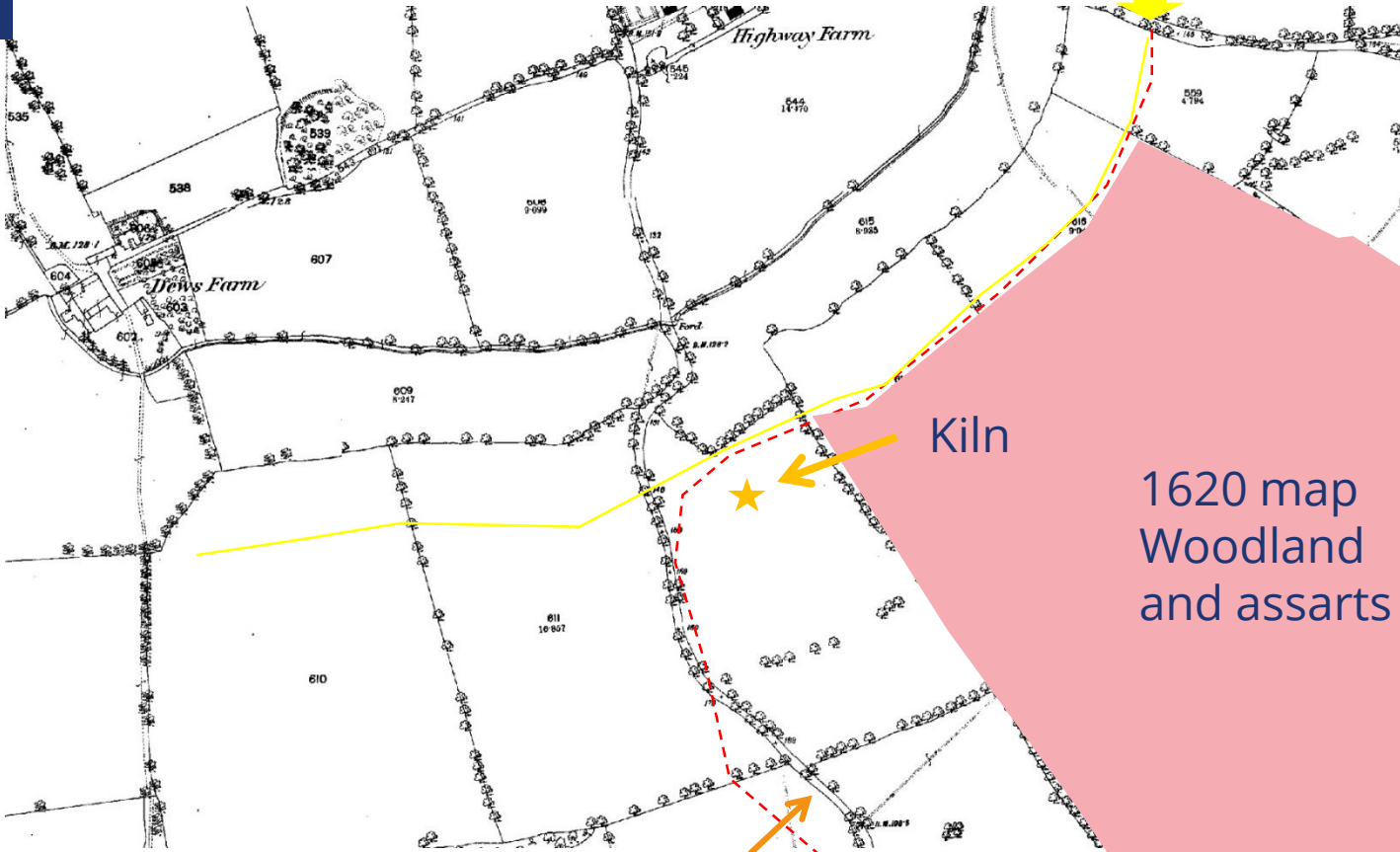
Archaeology



# Copthall North - Medieval



# Copthall North Medieval



Approximate location of 'closes' along road on 1620 map – a deserted settlement row?

Brakespeare Manor boundary

# Newyears Green



# Non-Intrusive Works Newyears Green

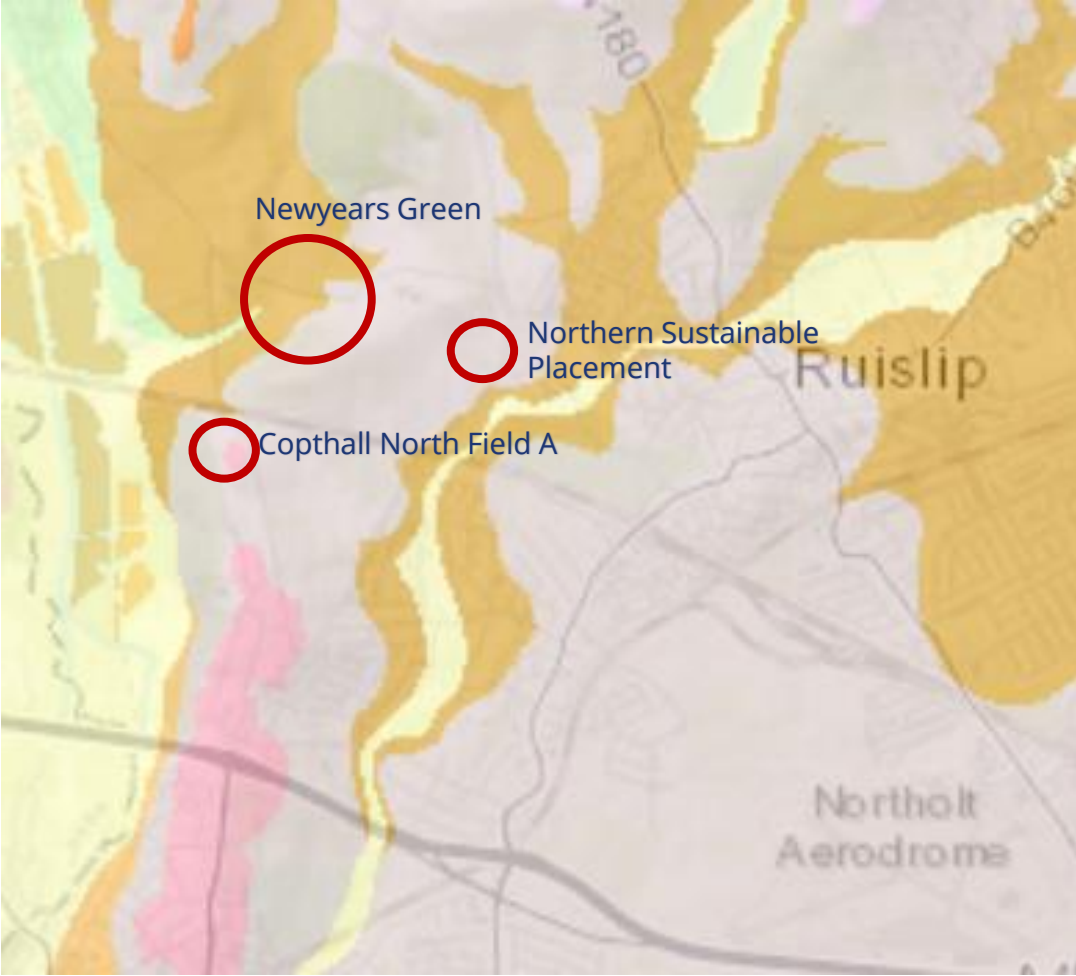
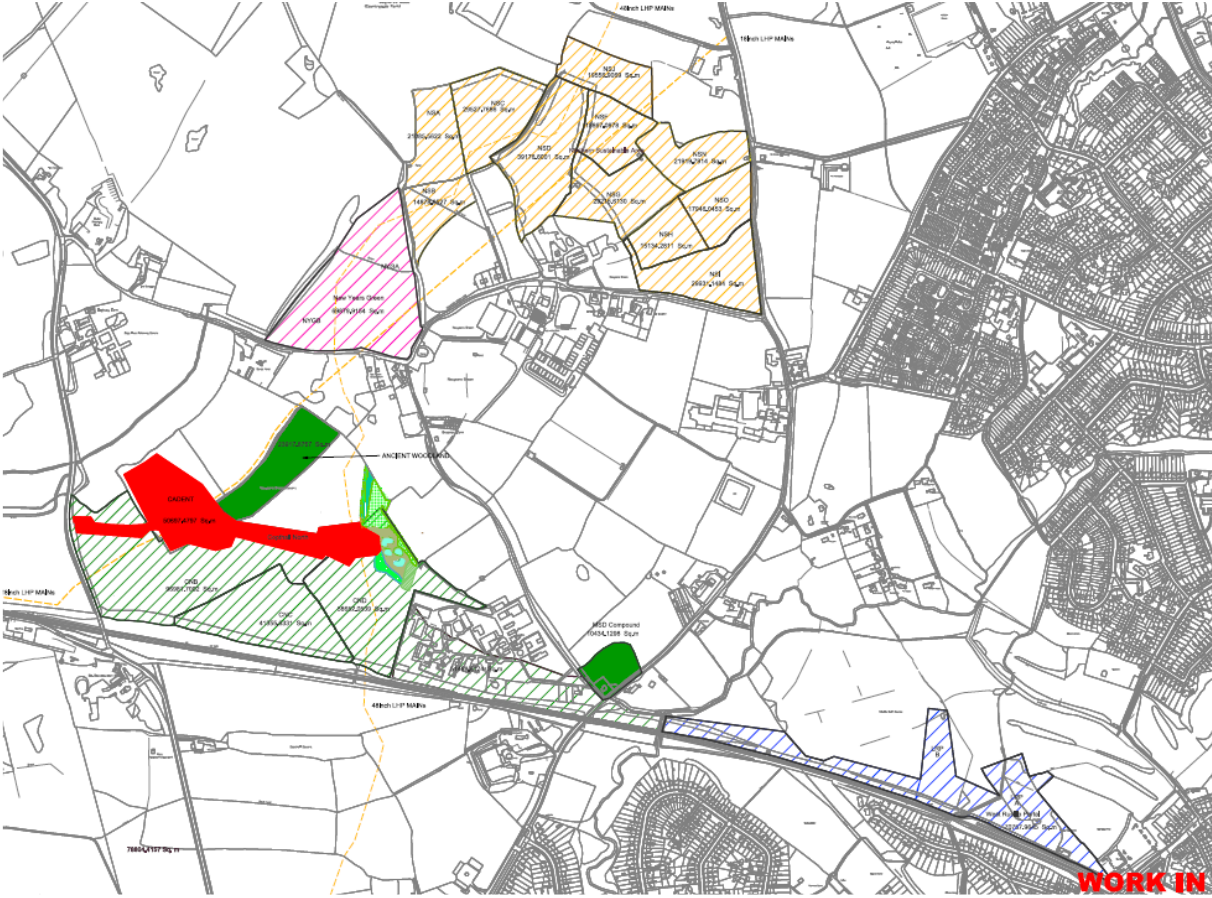


# Northern Sustainable Placement

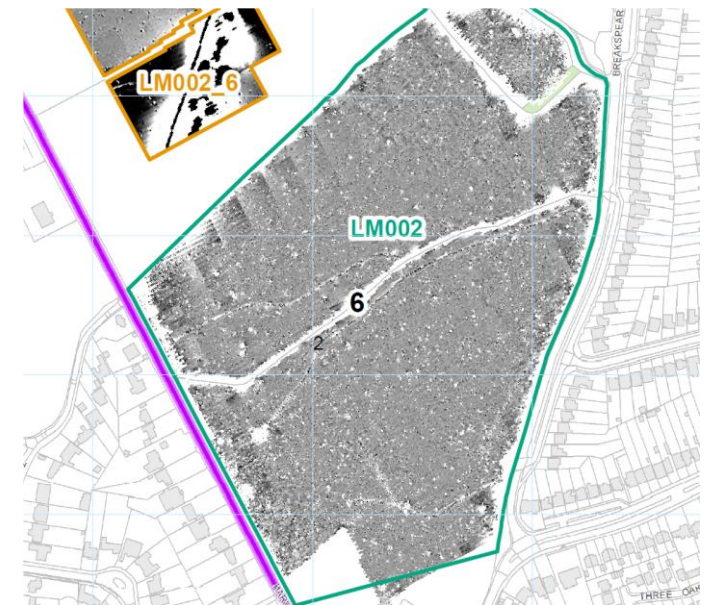
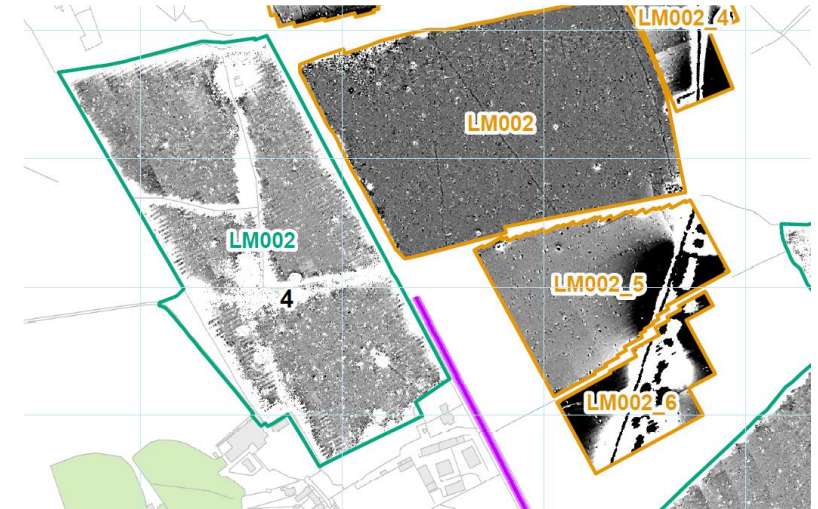
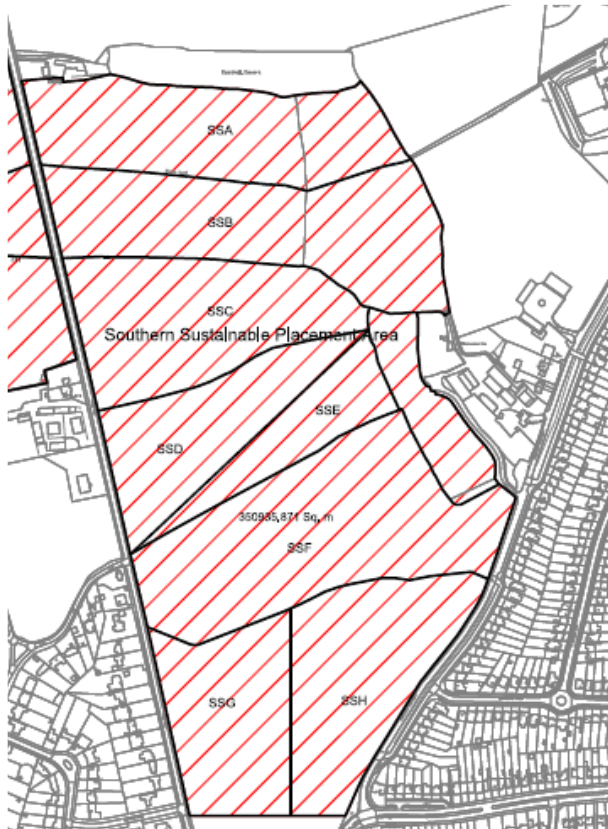




# Spatial Patterns



# Southern Sustainable Placement



# West Ruislip Golf Course - TWU Sewer Diversion

LIDAR



Map Regression



Topography



Archaeology



# Area S3/S1 Update



Successful reverse engineering of the Piscator by Sir Eduardo Paolozzi which has now been removed to allow conservation processes to begin- image shows the team involved in the three day process

# Key Activities: Built Heritage

- Installation of Instrumentation and Monitoring to the Grade II\* Royal College of General Practitioners
- Engineering surveys at the Grade II statue of Robert Stephenson
- Engineered dismantling and conservation of the Piscator sculpture by Sir Eduardo Paolozzi (asset owned by the Arts Council for England)
- Preliminary photographic survey and 3D modelling of Grade II Listed Mornington Street bridge piers
- Preliminary 3D modelling of Grade II\* Listed War memorial in advance of recording (required for installation of scaffolding for works)



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# Key Documents:

- Heritage Agreement Method Statement for the Grade II Listed bridge piers Mornington St Bridge East
- Heritage Agreement Method statement for the Grade II Listed bridge piers Mornington St Bridge West
- Heritage Agreement Method Statement for the temporary protection of the Grade II\* Royal College of General Practitioners
- Heritage Agreement Method Statement for the re-erection of the Grade II Listed Drinking Fountain – in draft
- Heritage Agreement Method Statement for the permanent basement retaining wall to the Grade II\* Royal College of General Practitioners
- Heritage Agreement Method Statement for the Recording of the Grade II Parkway Tunnel and Cutting
- PP/LS-WSI for the non-designated Euston station approach (consultation with GLAAS pending)
- PP for the Post Excavation Assessment at St James’s Gardens (consultation with GLAAS pending)
- PP for the DDBA for Archaeological works within Euston/London Borough of Camden (consultation with GLAAS pending)



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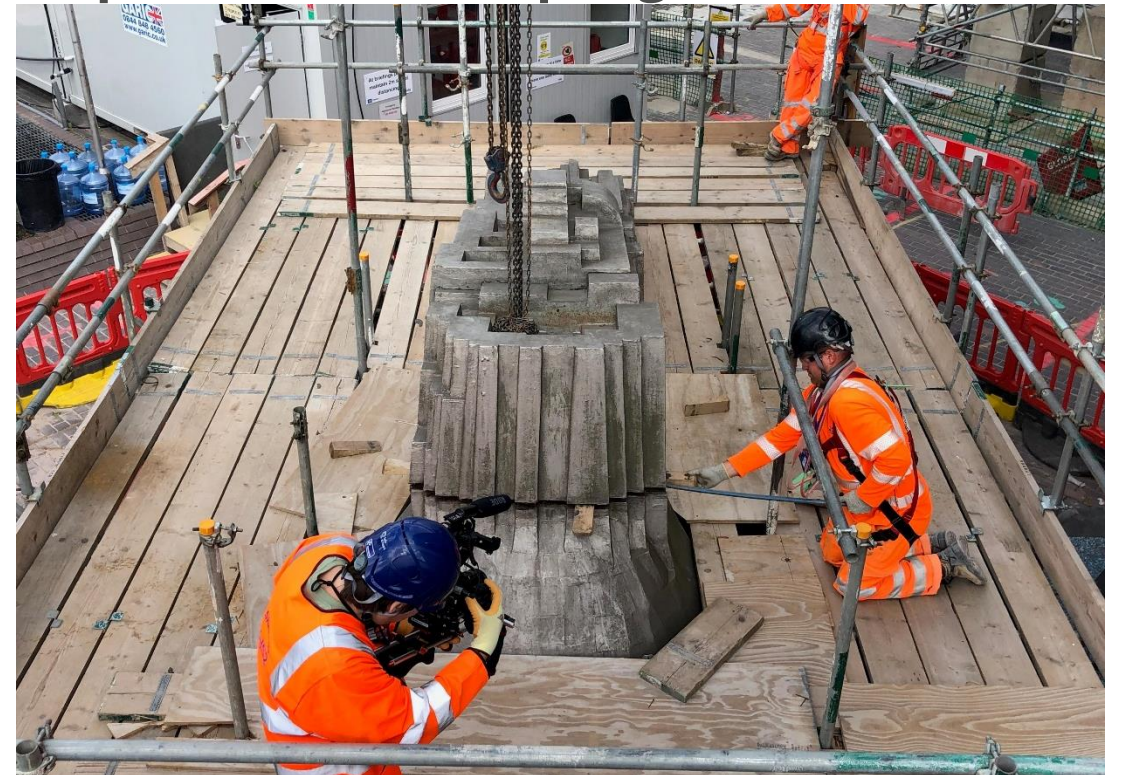


# S1/S3 Build Heritage - Dismantling the Piscator by Eduardo Paolozzi

Dismantling the Paolozzi (photo taken before Covid19 and social distancing)



Inspection and sampling



# Dismantling the Piscator

Comprising 9 pre-cast sections the 16 tonne sculpture was dismantled in 5 pieces after extensive archive investigations and liaison with the ACE and Paolozzi Foundation.

The 3 upper sections were removed using a portagantry with 6 tonne capacity. The 2 base sections were removed using the demolitions tower crane and lowered onto a waiting specialist transport



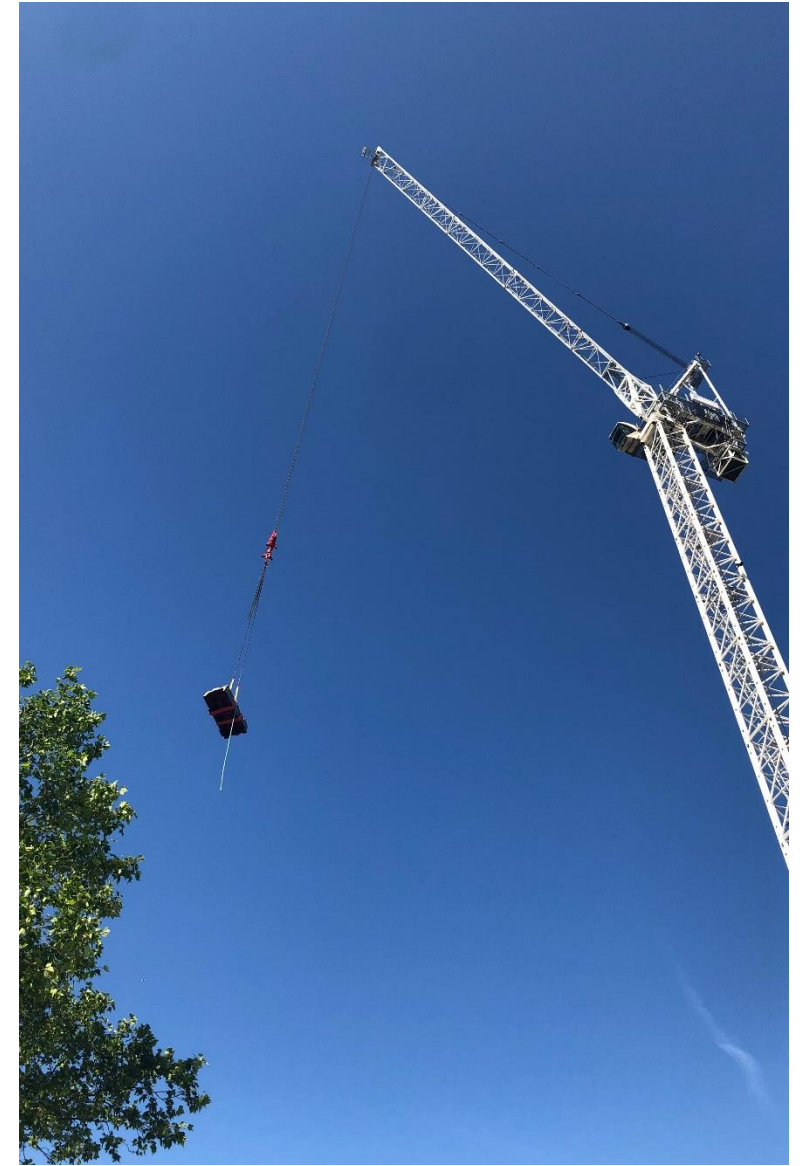
Upper sections during lifting



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Lift by tower crane!



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# Understanding Grade II Statue of Robert Stephenson – plinth interface investigations in advance of removal July/August 2020

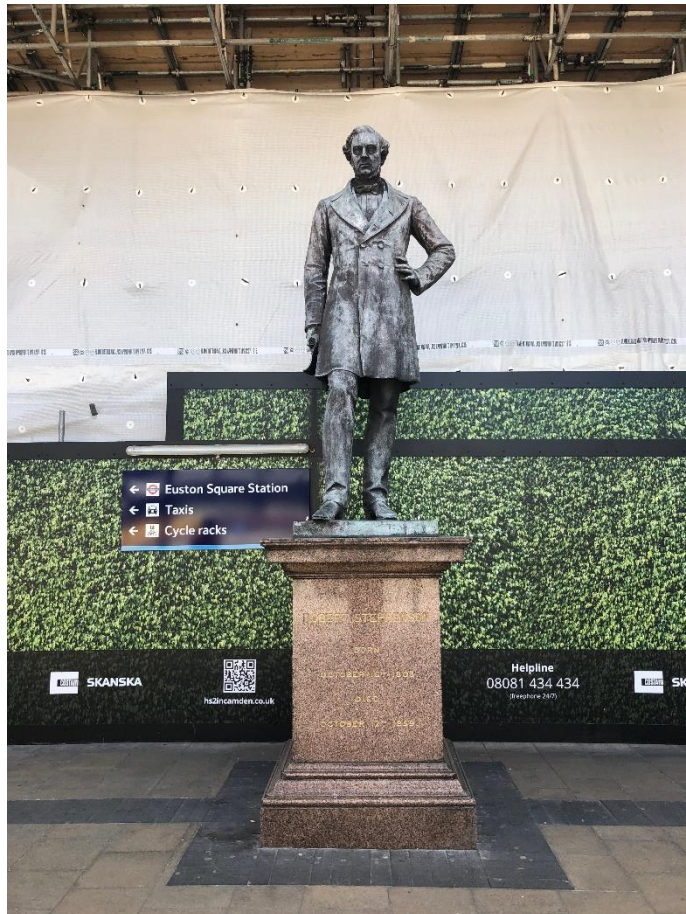
Interface with plinth – findings show plinth bonded to floor slab – historically cast into wet concrete



Plinth investigations undertaken by hand under supervision



# Conclusions

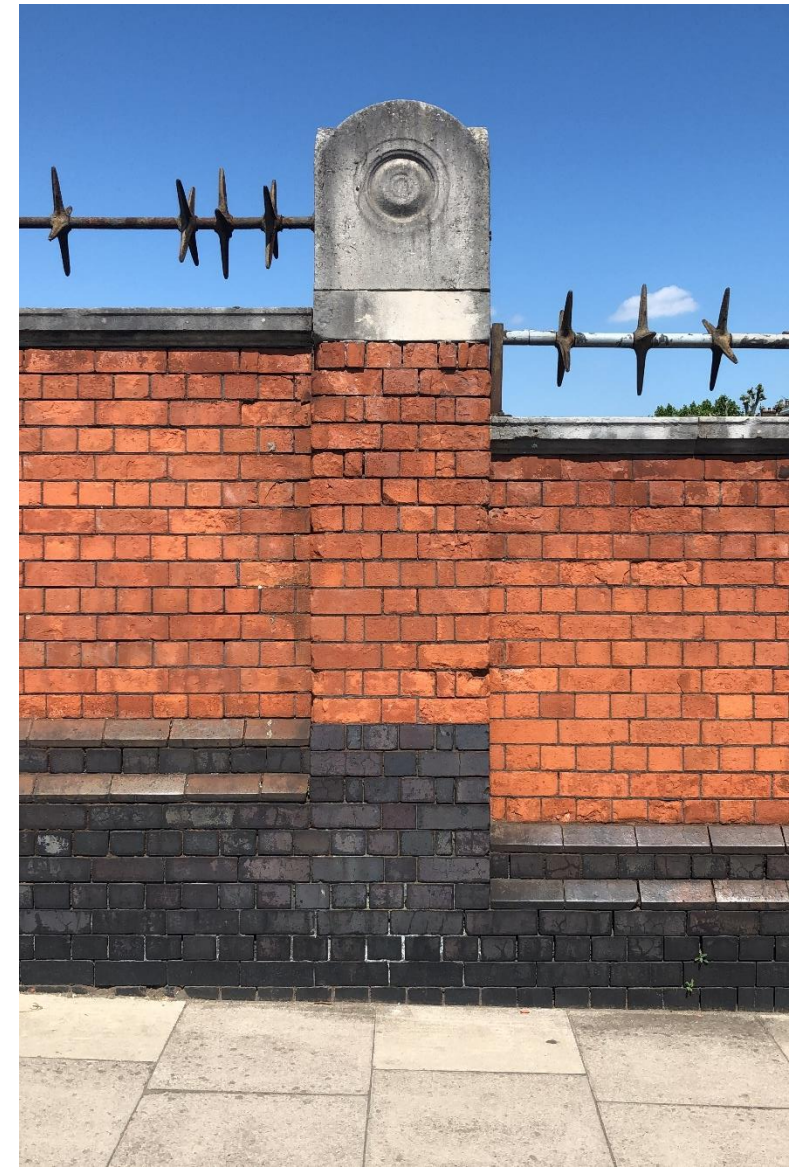


- Statue affixed with modern bolts
- Plinth constructed in 3 sections – Aberdeenshire granite
- Base of plinth cast in wet concrete leading to bonding between taxi rank slab and Grade II listed plinth
- Additional consideration will need to be made for low vibration wire cutting through concrete to separate plinth from taxi rank slab
- Dismantling to take place in 2 phases – removal of statue then removal of plinth
- Work planned for July/August 2020

# Preliminary works to Grade II Listed Mornington Street Bridge

Prelim photographic survey and engineered 3D modelling

Extensive rust expansion damage, temporary patching and WWII bomb damage identified



Prelim photo survey



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Example of parapet wall with pilaster

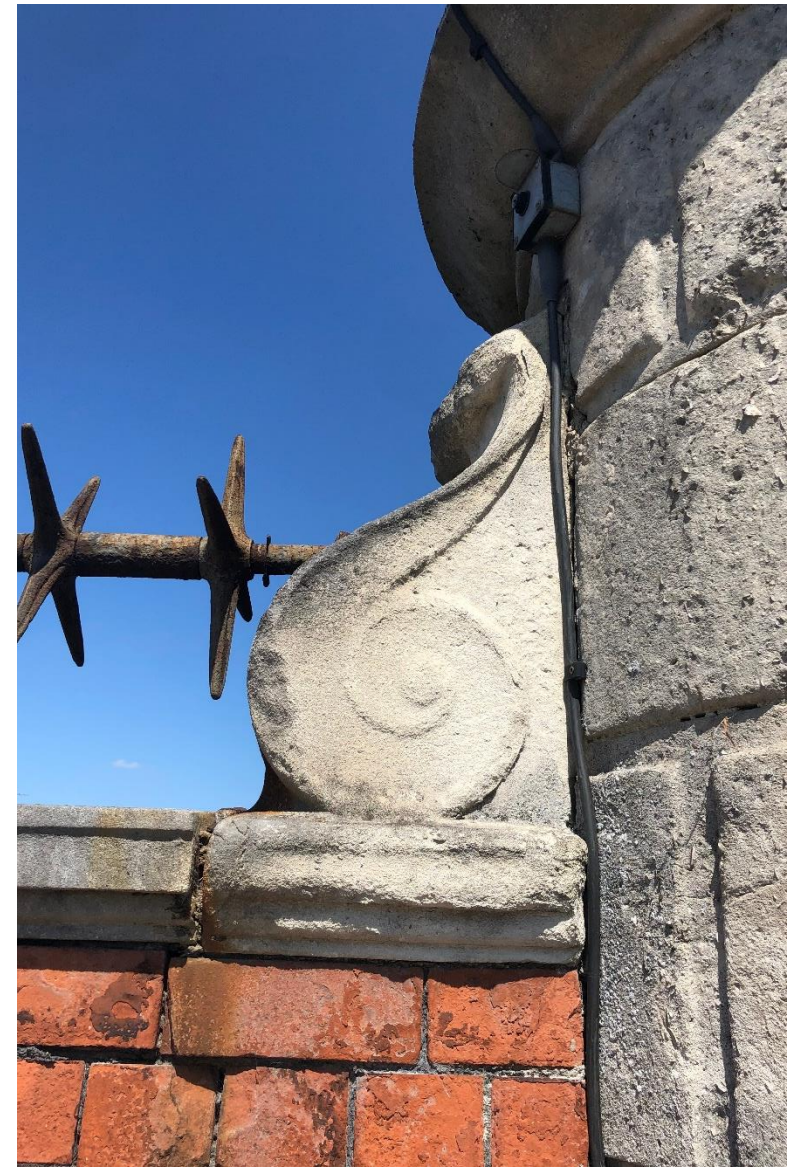
# Preliminary works to Grade II Listed Mornington St Bridge

4 potential phases of construction/repair identified.

Opportunity for use of digital and 3D modelling and collaboration with survey and engineering teams



Portland stone bridge pier and lamp



Decorate interface with deck damaged by rust expansion

# HERDS - Knowledge Creation Objectives

## Historic Built Environment

**KC43:** Investigate the link between the development of the railways and broader changes in the historic landscape, such as urban settlement expansion and the decline of the canal network.

**KC45:** The conflicts of the 20th century define the history of modern Britain and the world: how can we achieve a greater understanding of the significance of sites associated with conflict to local communities along the route?

**KC48:** Methods of using digital technology and social media to engage with public, communities and volunteers should be explored in a manner that enables parties to contribute to research and interpretation as well as enabling easy access to knowledge and ultimately archives

# HERDS - Knowledge Creation Objectives

## Archaeological Investigation and Post Ex

**KC42:** Develop sampling strategies to examine and compare the origin and degree of mobility in 18th and 19th century urban and rural populations.

**KC43:** Investigate the link between the development of the railways and broader changes in the historic landscape, such as urban settlement expansion and the decline of the canal network.

**KC45:** The conflicts of the 20th century define the history of modern Britain and the world: how can we achieve a greater understanding of the significance of sites associated with conflict to local communities along the route?

**KC46:** How do archaeologists affect the record themselves in terms of their methods of investigation, their response to the material, and the decisions they make?

**KC48:** Methods of using digital technology and social media to engage with public, communities and volunteers should be explored in a manner that enables parties to contribute to research and interpretation as well as enabling easy access to knowledge and ultimately archives

**KC100:** Creation of an ancient DNA database

# Summary:

- Covid 19 saw reduced work and output and continues to have an ongoing impact on heritage activities
- Covid 19 has also impacted on our short term ability to engage with the community and run pre-planned programmes of community engagement including updates and public talks
- Many heritage sub-contractors have been furloughed by their parent companies
- Built heritage works are progressing well with social distancing and remote/digital engagement with key stakeholders and asset owners
- An invite will be extended in Area South to discuss the planned Post-excavation works in St James's Gardens and the associate PP/LS-WSI – watch out for an email!
- Design for the works to St James's Gardens and Area J has been completed and submitted and engagement will commence in Q2 2020
- We are mindful of recent protests impacting on historic assets, particularly Victorian sculpture/memorials/monuments and bronzes and are monitoring this at Euston



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