



Above: A wider view of the surrounding vicinity demonstrating the extent to which the area was developed by this point.



Above: A view of the site – the second structure to the left of the 'T' junction. The occupying structure – along with the rest of the buildings in the terrace – appeared to have been generally neat and uniform.

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	Project: 2 Hyde Park Place, London		
	Ref: DA11941-00	Source: Landmark Maps	
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SC 50kg High Explosive Bomb			
Bomb Weight	40-54kg (88-119lb)		
Explosive Weight	25kg (55lb)		
Fuze Type	Impact fuze/electro-mechanical time delay fuze		
Bomb Dimensions	1,090 x 280mm (42.9 x 11.0in)		
Bomb Diameter	300mm (7.87in)		
Use	Against lightly damageable materials, hangars, railway rolling stock, ammunition depots, light bridges and buildings up to three stories.		
Remarks	The smallest and most common conventional German bomb. Nearly 70% of bombs dropped on the UK were 50kg.		

SC 250kg High Explosive Bomb			
Bomb Weight	245-256kg (540-564lb)		
Explosive Weight	125-130kg (276-287lb)		
Fuze Type	Electrical impact/mechanical time delay fuze.		
Bomb Dimensions	1640 x 512mm (64.57 x 20.16in)		
Bomb Diameter	368mm (14.5in)		
Use	Against railway installations, embankments, flyovers, underpasses, large buildings and below-ground installations.		
Remarks	It could be carried by almost all German bomber aircraft, and was used to notable effect by the Junkers Ju-87 Stuka (Sturzkampfflugzeug or dive-bomber).		

SC 500kg High Explosive Bomb			
Bomb Weight	480-520kg (1,058-1,146lb)		
Explosive Weight	250-260kg (551-573lb)		
Fuze Type	Electrical impact/mechanical time delay fuze.		
Bomb Dimensions	1957 x 640mm (77 x 25.2in)		
Bomb Diameter	470mm (18.5in)		
Use	Against fixed airfield installations, hangars, assembly halls, flyovers, underpasses, high-rise buildings and below-ground installations.		
Remarks	40/60 or 50/50 Amatol TNT, tritonal. Bombs recovered with Tritonal filling have cylindrical paper wrapped pellets 1-15/16 in. in length and diameter forming		

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SD2 Anti-Personnel 'Butterfly Bomb'			
Bomb Weight	Approx. 2kg (4.41lb)		
Explosive Weight	Approx. 7.5oz (225 grams) of Amatol surrounded by a layer of bituminous composition.		
Fuze Type	41 fuz (time), 67 fuz (clockwork time delay) or 70 fuz (anti-handling device)		
Bomb Diameter	3in (7.62 cm) diameter, 3.1in (7.874) long		
Use	Designed as an anti-personnel/ fragmentation weapon. They were delivered by air, being dropped in containers of 23-144 sub-munitions that opened at a predetermined height, thus scattering the bombs.		
Remarks	Very rare. First used against Ipswich in 1940, but were also dropped on Kingston upon Hull, Grimsby and Cleethorpes in June 1943, amongst various other targets in UK. As the bombs fell the outer case flicked open by springs which caused four light metal drogues with a protruding 5 inch steel cable to deploy in the form of a parachute & wind vane which armed the device as it span.		

Parachute Mine (Luftmine B / LMB)			
Bomb Weight	Approx. 990kg (2176lb)		
Explosive Weight	Approx. 705kg (1,554lb)		
Fuze Type	Impact/Time delay / hydrostatic pressure fuze		
Dimensions	2.64m x 0.64m (3.04m with parachute housing)		
Use	Against civilian, military and industrial targets. Used as blast bombs and designed to detonate above ground level to maximise damage to a wider area.		
Remarks	Deployed a parachute when dropped in order to control its descent. Had the potential to cause extensive damage in a 100m radius.		

SC 1000kg			
Bomb Weight	Approx. 993-1027kg (2,189-2,264lb)		
Explosive Weight	Approx. 530-620kg (1168-1367lb)		
Fuze Type	Electrical impact/mechanical time delay fuze.		
Filling	Mixture of 40% amatol and 60% TNT, but when used as an anti-shiping bomb it was filled with Triolite 105, a mixture of 15% RDX, 70% TNT and 15% aluminium powder.		
Bomb Dimensions	2800 x 654mm (110 x 25.8in)		
Bomb Diameter	654mm (18.5in)		
Use	SC type bombs are General Purpose Bombs used primarily for general demolition work. Constructed of parallel walls with comparatively heavy noses. They are usually of three piece welded construction		

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1kg Incendiary Bomb			
Bomb Weight	Approx. 1.0 - 1.3kg (2.2 and 2.9lb)		
Explosive Weight	Approx. 680g (1.5lb) Thermit 8-15gm Explosive Nitroperita		
Fuze Type	Impact fuze		
Bomb Dimensions	350 x 50mm (13.8 x 1.97in)		
Bomb Diameter	50mm (1.97in)		
Use	As incendiary - dropped in clusters on towns and industrial complexes		
Remarks	Magnesium alloy case. Sometimes fitted with high explosive charge. The body is a cylindrical alloy casting threaded internally at the nose to receive the fuze holder and fuze.		

CS0 A Incendiary Bomb			
Bomb Weight	Approx. 41kg (90.4lb)		
Explosive Weight	Approx. 0.03kg (0.066lb)		
Incendiary Filling	12kg (25.5lb) liquid filling with phosphor igniters in glass phials. Benzine 85%, Phosphorus 4%, Pure Rubber 10%		
Fuze Type	Electrical impact fuze		
Bomb Dimensions	1,100 x 280mm (43.2 x 8in)		
Use	Against any targets where an incendiary effect is required		
Remarks	Early fill was a phosphorous/carbon disulphide incendiary mixture		

Flam C-250 Oil Bomb			
Bomb Weight	Approx. 125kg (276lb)		
Explosive Weight	Approx. 1kg (2.2lb)		
Fuze Type	Super-fast electrical impact fuze		
Filling	Mixture of 30% petrol and 70% crude oil		
Bomb Dimensions	1,650 x 512.2mm (65 x 20.2in)		
Bomb Diameter	368mm (14.5in)		
Use	Often used for surprise attacks on ground troops, against broop barracks and industrial installations. Thin casing - not designed for ground penetration		

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The 'J-Curve' Effect Principle Annex: G

Top: J-curve Effect - Due to angle of entry, unexploded bombs would often end their trajectory at a lateral offset from point of entry, often ending up beneath adjacent extant structures/sites. The photograph above shows 250kg bomb found in Bermondsey pointing upwards, demonstrating 'J-curve'

One of the most common scenarios for UXO going unnoticed was when a UXB fell into a 'bomb site' (such as the area shown Top Left), the entry hole of the bomb obscured by any debris and rubble present. Note that the entry hole of a 50kg UXB could be as little as 20cm in diameter (Left).

50-KG UXB

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Recent Unexploded Bomb Finds, UK Annex: H1

BBC NEWS

Bermondsey bomb: World War Two device safely removed

An unexploded World War Two bomb found in south London has been driven away safely under police and Army escort.

The 500lb (250kg) device was found on a building site in Grange Walk, Bermondsey on Monday.

March 2015

BBC NEWS

Bethnal Green WW2 bomb: Experts remove unexploded device

An unexploded World War Two bomb that prompted the evacuation of 700 people in east London has been made safe and removed by the military.

Families spent the night in a school hall after the 500lb bomb was found in the basement of a building site on Temple Street, in Bethnal Green, on Monday afternoon. A 200m (650ft) exclusion zone was set up around the device.

August 2016

BBC NEWS

Bath WW2 bomb scare: Device defused, police say

A 500lb World War Two bomb found on the site of a former school in Bath has been defused and made safe.

The discovery of the bomb on Thursday led to the evacuation of hundreds of homes and many road closures in the Lansdown area of the city.

A cordon around the site was lifted on Friday evening, more than 24 hours after residents were asked to leave their homes.

May 2016

BBC NEWS

London City Airport reopens after WW2 bomb moved

London City Airport has reopened after an unexploded 500kg World War Two bomb was safely moved from the area.

The device was discovered at the King George V Dock on Sunday during planned work at the east London airport.

All flights were cancelled on Monday after an exclusion zone was put in place, with the closure affecting up to 16,000 passengers and nearby residents being evacuated from their homes.

May 2015

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Examples of Unexpected Detonation of WWII Bombs Annex: H2

BASF has confirmed that an explosive device, most likely a World War II-era bomb, caused the blast that left one person injured Tuesday at a plant construction site in Germany.

The explosion was reported at BASF's Ludwigshafen toluene diisocyanate (TDI) plant, which recently broke ground for a 300,000 metric tons per year TDI production plant and other construction to expand its facilities.

1st March 2012

BASF is expanding their site Ludwigshafen location by expanding several plants and building a TDI plant, which was the site of an explosion Tuesday Feb. 28. One person was injured in the blast, which BASF believes was caused when excavation work detonated a bomb.

Early reports had speculated that excavation work had detonated a bomb from World War II. While the age of the bomb has not been confirmed, BASF has said that an explosive device was detonated.

BASF Provides Some Details

Responding to a request from PaintSquare News for more information on Wednesday (Feb. 27), BASF's manager of media relations and corporate communications Europe, Ursula von Stetten, wrote in an email, "So here [are] the facts. The detonation took place at 10:00 a.m. One person was injured, the injury is not serious. He will be kept in the hospital for some days.

"Cause of the detonation was an explosive device, presumably a bomb deriving from the Second World War. The device detonated when grounding work was done. No details on [if] delay [are] available. At the moment, the exact circumstances of the incident are [being] evaluated."

World War II Bomb Explodes on German Motorway

A highway construction worker in Germany accidentally struck an unexploded World War II bomb, causing an explosion which killed him and wrecked several passing cars.

23rd October 2006

A World War II bomb has exploded during construction work on a German highway, killing one worker and injuring several motorists who were driving past, police said.

The worker had been cutting through the road surface near the south-western town of Aschaffenburg when his machine struck the bomb and triggered it. Police said they weren't sure yet what type of bomb it was. "The explosion seems to have been too small for it to have been an aircraft bomb," a police spokesman said.

The A3 Autobahn linking the cities of Frankfurt and Würzburg has been blocked in both directions.

More than 60 years since the end of World War II, construction workers still frequently unearth unexploded bombs and it is not uncommon for whole city districts to be cordoned off and even evacuated while bomb disposal experts defuse them.

Indeed, just last week, some 22,000 people were evacuated from their homes in Hanover when three World War II bombs were discovered.

Allied pilots rained nearly 2 million tons of explosives on Germany during the war. Landmines, hand grenades, mortar bombs and anti-tank devices from the fighting on German soil at the end of the war are also found, and authorities say it will take decades before the country is cleared of fuds.

Between 400 and 600 bombs are discovered a year in the state of North Rhine-Westphalia alone, where the heavily industrialized Ruhr region was a major target for Allied bombers.

WWII bomb injures 17 at Hattingen construction site

19th September 2013

Published: 19 Sep 08 16:53 CET

Seventeen people were injured on Friday when a construction crew unwittingly detonated a buried World War II-era bomb in Hattingen.

- Liberals split seats ahead of May state election (17 Mar '12)
- Heat death camp guard Dieselpunk dies (7 Mar '12)
- Stupid stunt causes bomb blast chaos (6 Mar '12)

An excavator apparently drove over a 250-kilogramme (550 pound) American bomb, damaging surrounding buildings. Most of the injured suffered auditory trauma from the blast, and the excavator operator suffered injuries to his hands, police in the German state of North Rhine-Westphalia said.

"The hole was astoundingly small for such a large bomb full of so many explosives," Armin Gebhard, head of the Amberg department for military ordnance removal, told The Local. "But of course it damaged all the surrounding buildings too. We are really happy it wasn't worse."

2 June 2008 Last updated at: 15:37

World War II bomb kills three in Germany

Three people have been killed and six injured trying to defuse a World War II bomb in central Germany.

Workers building a sports stadium had earlier unearthed the bomb in the town of Goettingen.

It was not immediately clear why the bomb, reportedly weighing 500kg (1,100lb), had detonated.

Unexploded WWII bombs dropped by Allied planes are frequently found in Germany, though it is unusual for them to explode unexpectedly.

A special commission is investigating the causes of the explosion, while prosecutors are considering whether the team leader should face charges of manslaughter through culpable negligence, the DPA's chief Langensieper reports from Berlin.

The blast happened an hour before the defusing operation was due to start.

Officials said the three men who died were experienced sappers, or combat engineers, who over 20 years had defused up to 700 bombs.

More than 7,000 people were immediately evacuated when the 500kg bomb was found. Several schools, a kindergarten and local companies remain closed.

3rd June 2008

Local UXB Incident Annex: H3

Evening Standard. Register

News Coronavirus Food for London Comment Football *psia* GO London Lifestyle Showbiz ES Magazine Homes & Property Digital Edition

News > London

'Dad's Army' WW2 training bomb found in Serpentine in Hyde Park

Police have closed off a large part of Hyde Park after the discovery of an unexploded World War Two bomb.

A large police presence has been seen in the area with a cordon in place between the Triangle car park and the boat house on Serpentine Road.

Police confirmed the device was an inert WW2 mortar round used for training by the Home Guard.

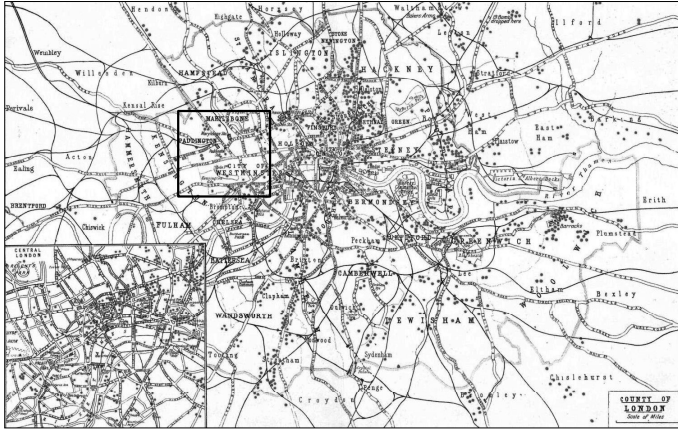
Police said: "The North and South Bank of the Serpentine, Hyde Park are currently closed due to the discovery of suspected WW2 ordnance.

Above: An Evening Standard article reporting on the finding of a WWII-era mortar round – often used for training purposes by the local Home Guard – in Serpentine Lake.

Approx. Distance 600m

Above: Serpentine Lake, referenced in the above article, has been highlighted on a Google Earth layer to demonstrate the approximate distance between the WWII-era practise bomb find, and the site.

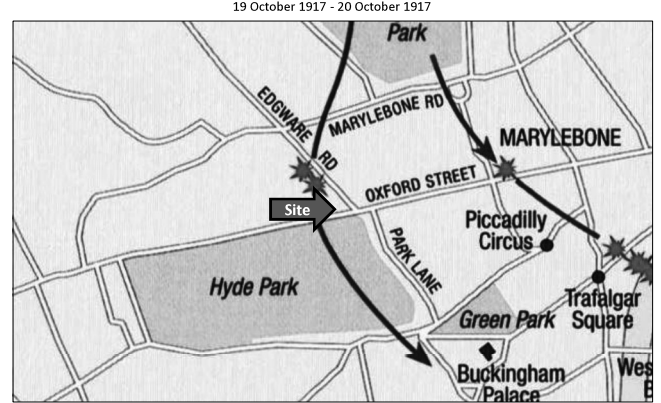
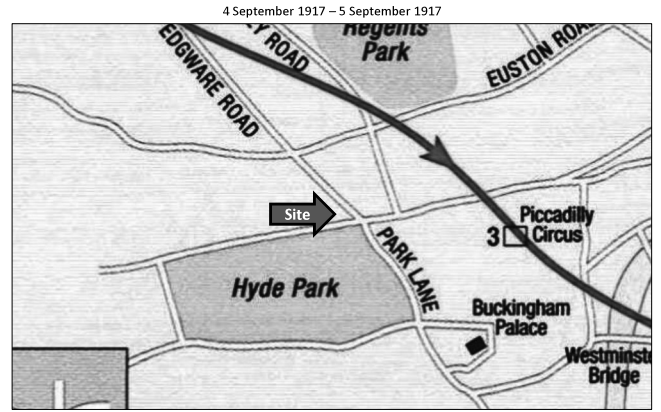
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Examples of 50 and 100kg German WWI bombs

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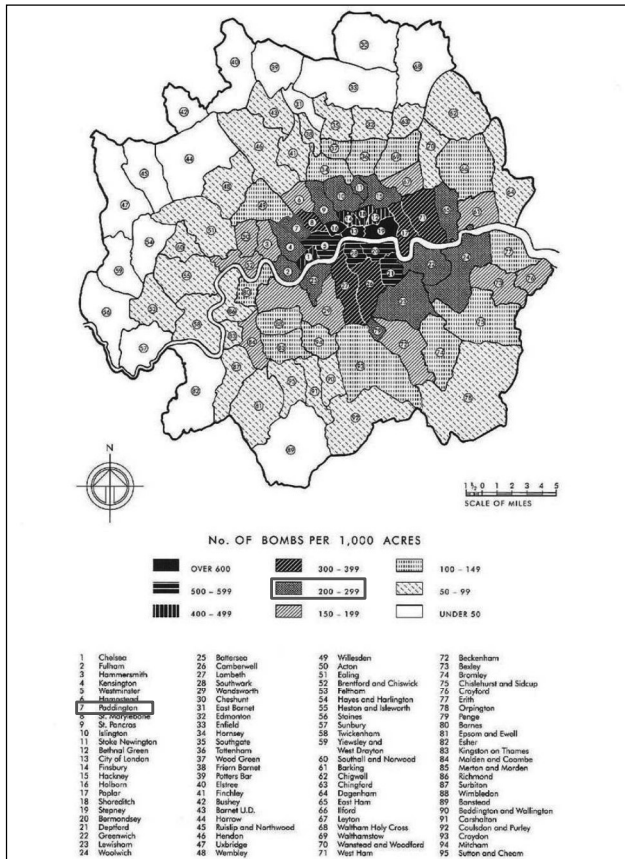
Client: **GEA Ltd**
 Project: **2 Hyde Park Place, London**
 Ref: **DA11941-00** Source: The National Archives, Kew
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Above: Mapping demonstrating the approximate locations of aerial delivered ordnance. WWI bombs were generally smaller, less frequent, and dropped from a lower altitude than those used in WWII and as such, WWI mapping generally tends to more accurate than it's WWII counterpart. The two maps shown above demonstrate the closest WWI incidents that could be found in relation to the site.

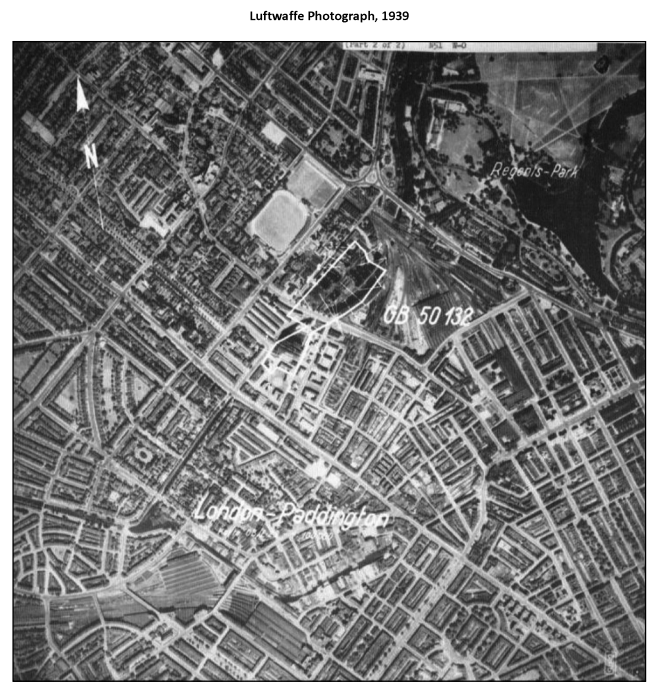
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Client: **GEA Ltd**
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 Ref: **DA11941-00** Source: Castle, I., London 1917-18: The Bomber Blitz
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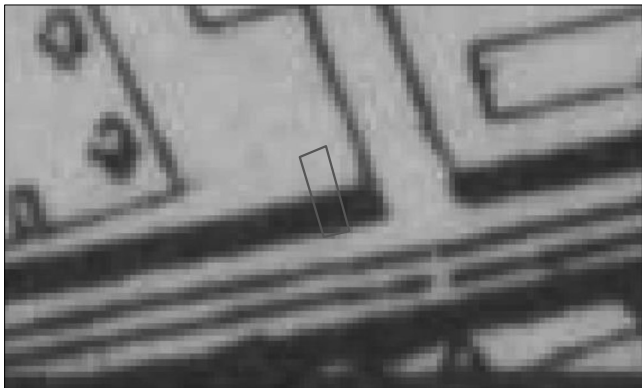


Pictured above:
 1. GB 50 132 - Lodge Road Power Station.
 2. Paddington Station.
 Site situated approximately 900m to the south-east of Paddington Station

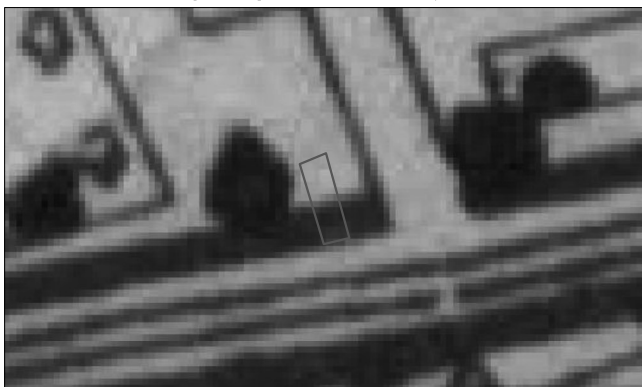
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Client: **GEA Ltd**
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 Ref: **DA11941-00** Source: Nigel I. Clarke, "Adolf Hitler's Home Counties Holiday Snaps"
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Night Bombing up to 7 October 1940



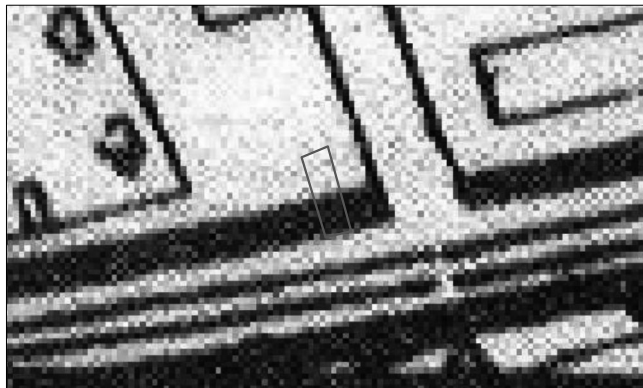
Night Bombing from 7 October 1940 to 28 July 1941



● Recorded bomb strike

	Client: GEA Ltd	— Approximate site boundary	↑ N
	Project: 2 Hyde Park Place, London		
	Ref: DA11941-00	Source: The National Archives, Kew	
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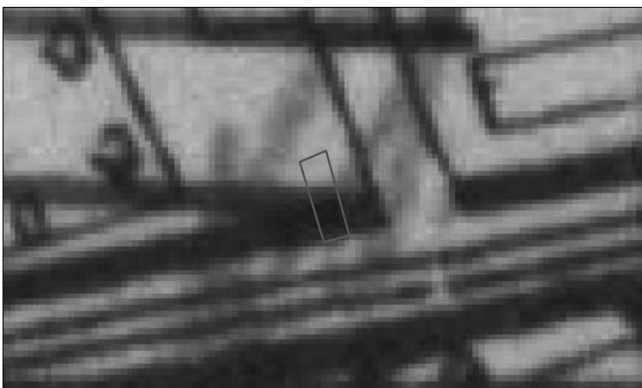
Day Bombing from 8 October 1940 to 31 December 1940



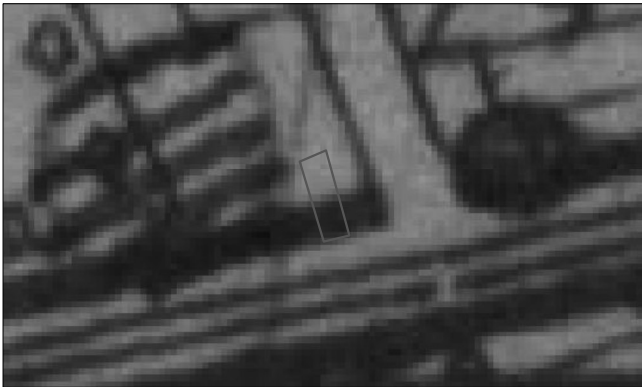
● Recorded bomb strike

	Client: GEA Ltd	— Approximate site boundary	↑ N
	Project: 2 Hyde Park Place, London		
	Ref: DA11941-00	Source: The National Archives, Kew	
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6 January 1941 – 13 January 1941



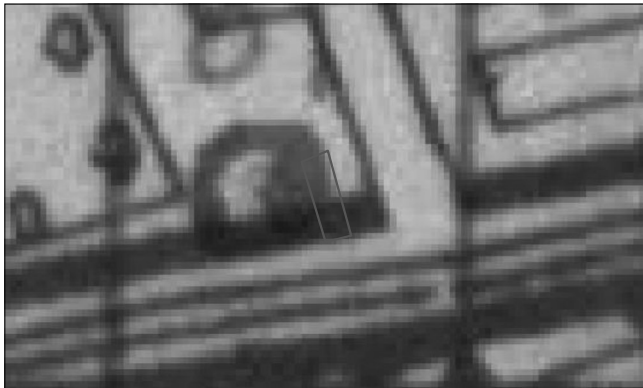
5 May 1941 – 12 May 1941



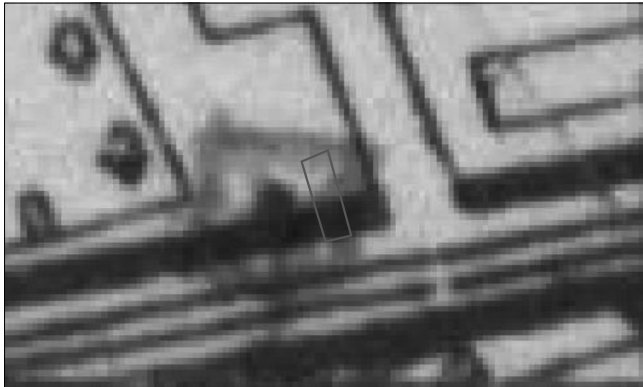
● Recorded HE bomb strike ▨ Recorded incendiary bomb shower **Key to weekly map symbol colours**
 ● Recorded UXB strike ○ Recorded oil bomb strike Monday - Brown Friday - Green
 Tuesday - Vermilion Saturday - Violet
 Wednesday - Blue Sunday - Yellow
 Thursday - Black

	Client: GEA Ltd	— Approximate site boundary	↑ N
	Project: 2 Hyde Park Place, London		
	Ref: DA11941-00	Source: The National Archives, Kew	
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13 March 1944 – 19 March 1944



2 June 1944 – 9 June 1944



● Recorded HE bomb strike ▨ Recorded incendiary bomb shower **Key to weekly map symbol colours**
 ● Recorded UXB strike ○ Recorded oil bomb strike Monday - Brown Friday - Green
 Tuesday - Vermilion Saturday - Violet
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	Client: GEA Ltd	— Approximate site boundary	↑ N
	Project: 2 Hyde Park Place, London		
	Ref: DA11941-00	Source: The National Archives, Kew	
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