

**Appendix C – NE3 – Carrs Industrial Estate North Extension,
Haslingden – Access Road Preliminary Study (Appendices A to C)**

Appendices

A. Site History

378200

378400

378600

424000

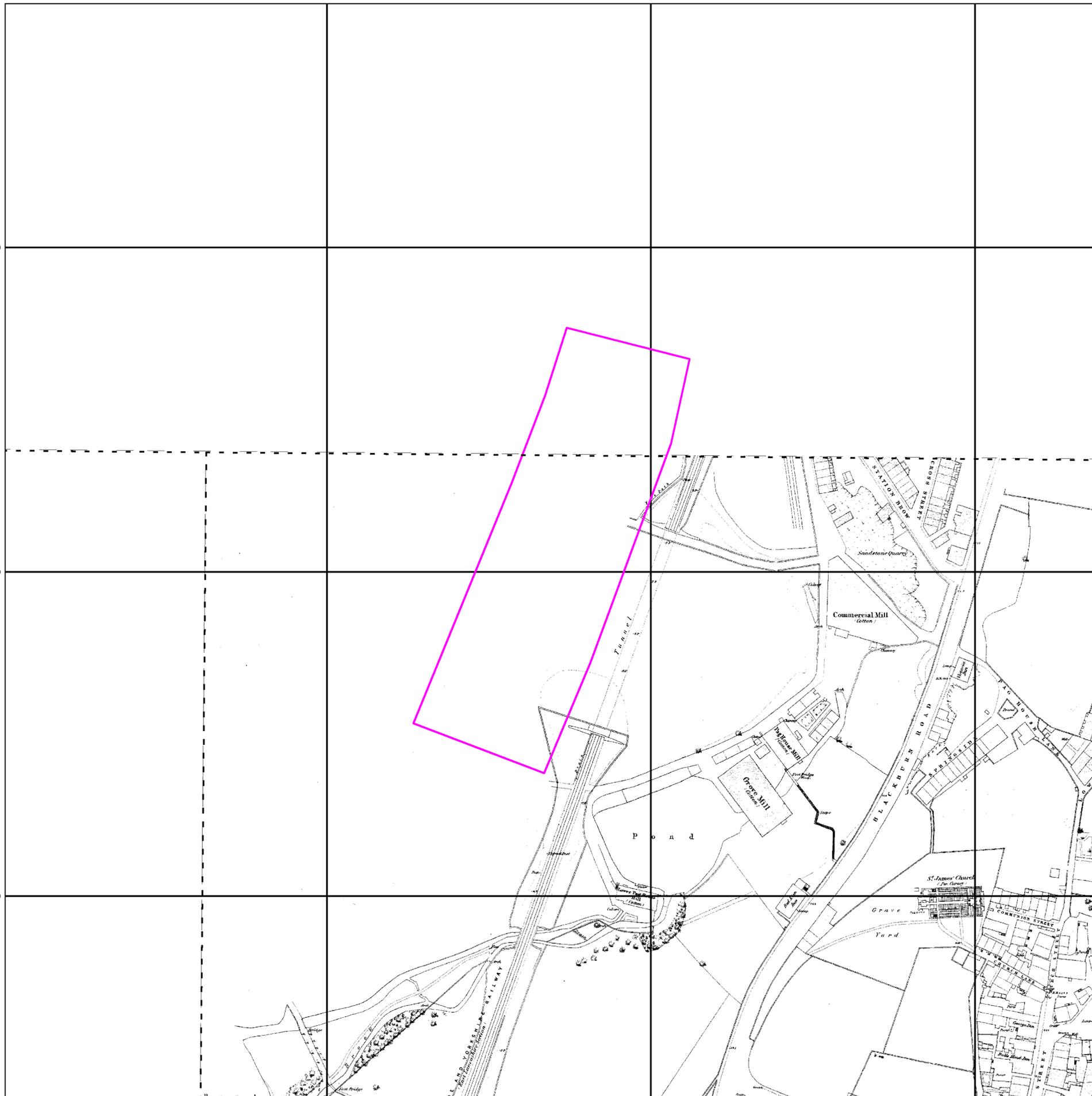
424000

423800

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M
M
MOTT
MACDONALD

Lancashire And Furness

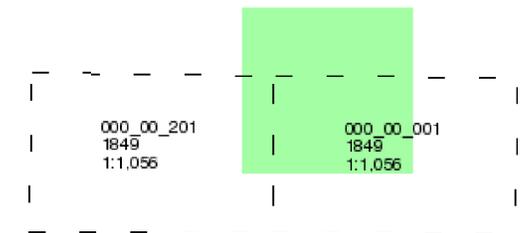
Published 1849

Source map scale - 1:1,056

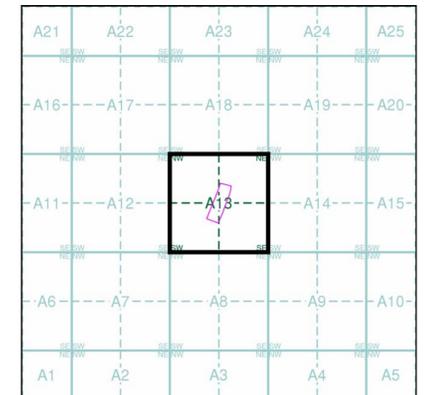
The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)



Historical Town Plan - Segment A13



Order Details

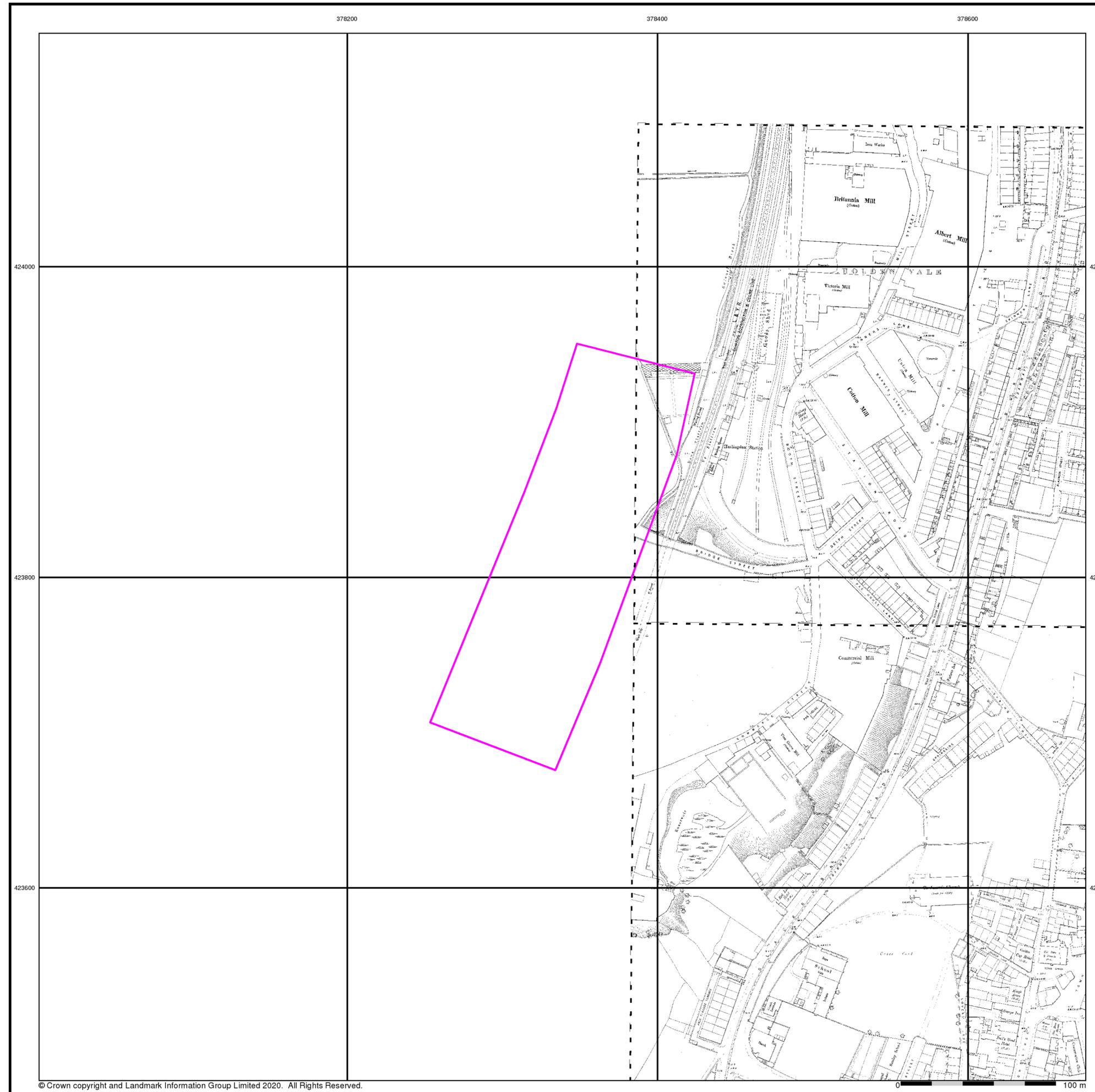
Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 0

Site Details

Site at, Rossendale Valley, Lancashire

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M M
MOTT MACDONALD
Lancashire And Furness
Published 1892
Source map scale - 1:500

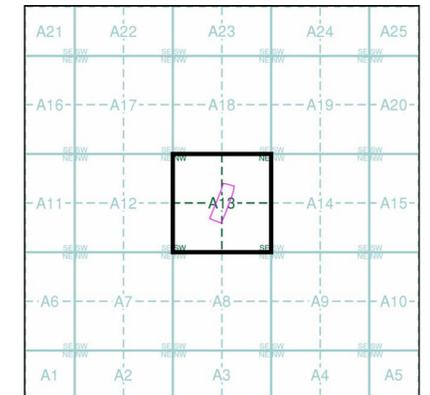
The 1:500 scale Ordnance Survey mapping was introduced in 1855 as a replacement for the 1:528 scale and to complement the 1:2500 scale that had been implemented in 1853. By 1895, the 1:500 scale covered most towns over a population of about 4000 at the time of survey, although very few towns were mapped more than once at this scale, and none have been since 1910. The 1:500 scale gives particular emphasis to such features as lamp posts, man holes, arched passages and minor building projections. Also often featured are divisions between tenements, interior ground floor layouts of public buildings, and on earlier plans, the functions of the various parts of larger industrial premises are also indicated. Content of the plans does vary however, from one town to the next in terms of, for example, the completeness of railway tracks and the coverage of public buildings.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)

071_12_003
1892
1:500
071_12_006
1892
1:500

Historical Town Plan - Segment A13



Order Details

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Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

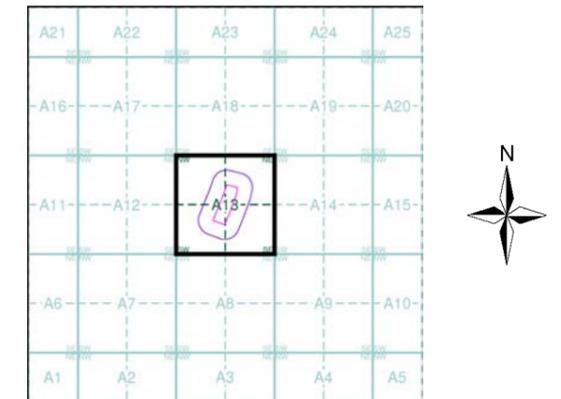
Large-Scale National Grid Data 1:2,500 and 1:1,250

Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m **Bench Mark** **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well

M M MOTT MACDONALD Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:2,500	1893	2
Lancashire And Furness	1:2,500	1911	3
Lancashire And Furness	1:2,500	1930	4
Ordnance Survey Plan	1:1,250	1961	5
Additional SIMs	1:1,250	1961 - 1984	6
Ordnance Survey Plan	1:2,500	1963	7
Additional SIMs	1:2,500	1963	8
Ordnance Survey Plan	1:1,250	1971 - 1989	9
Supply of Unpublished Survey Information	1:1,250	1976	10
Additional SIMs	1:1,250	1983 - 1987	11
Additional SIMs	1:1,250	1985 - 1987	12
Additional SIMs	1:2,500	1987	13
Ordnance Survey Plan	1:1,250	1990	14
Large-Scale National Grid Data	1:1,250	1993	15
Large-Scale National Grid Data	1:1,250	1993	16
Large-Scale National Grid Data	1:1,250	1996	17
Historical Aerial Photography	1:2,500	2001	18

Historical Map - Segment A13

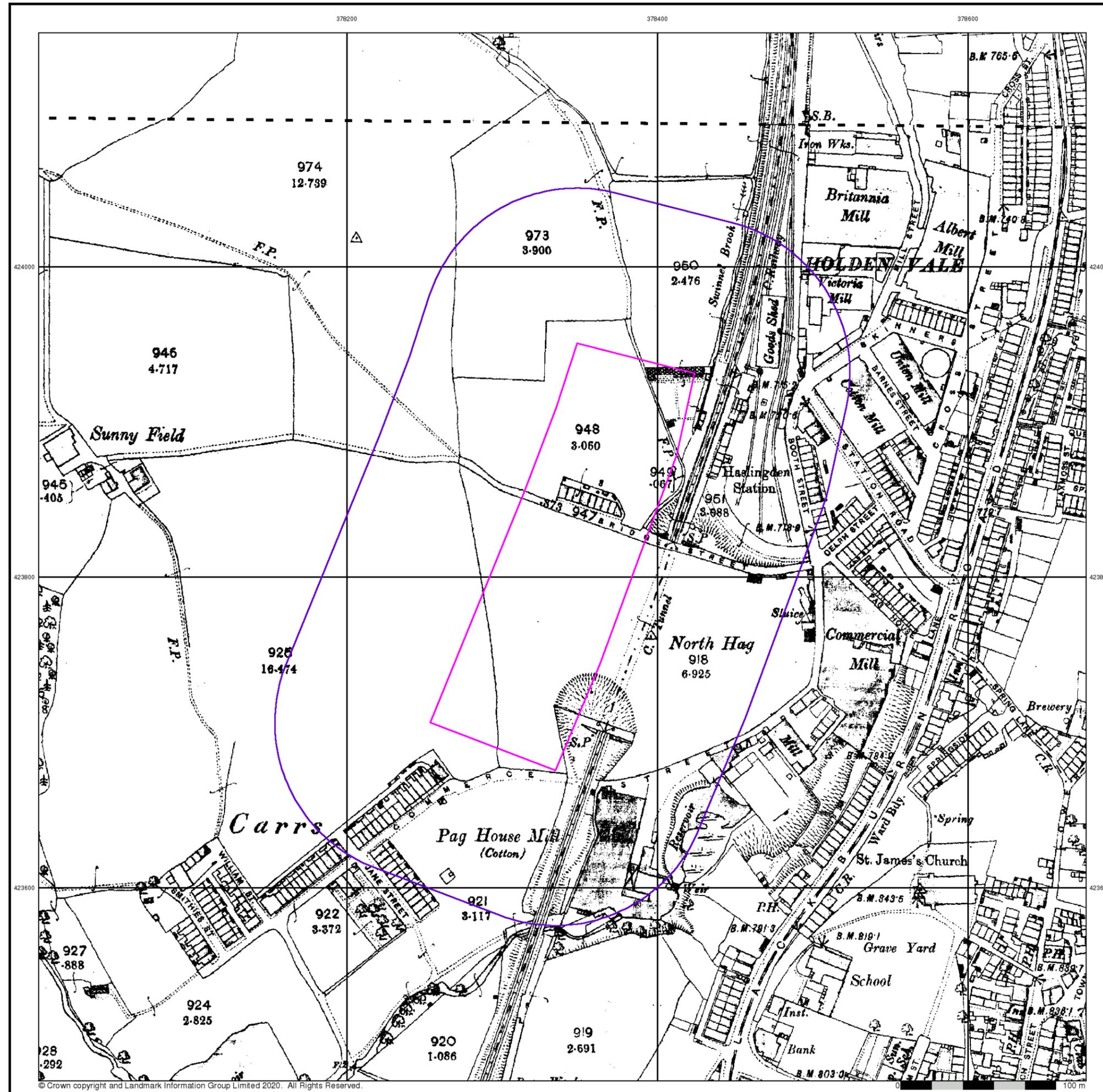


Order Details

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 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 100

Site Details

Site at, Rossendale Valley, Lancashire

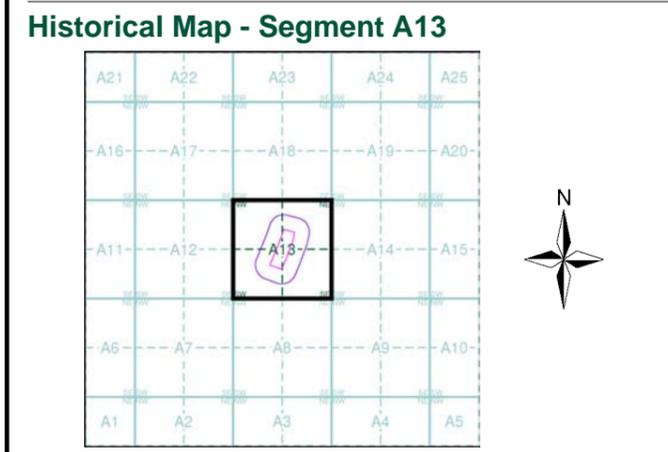


M M
MOTT MACDONALD
Lancashire And Furness
Published 1893
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

071_08	1893	1:2,500
071_12	1893	1:2,500



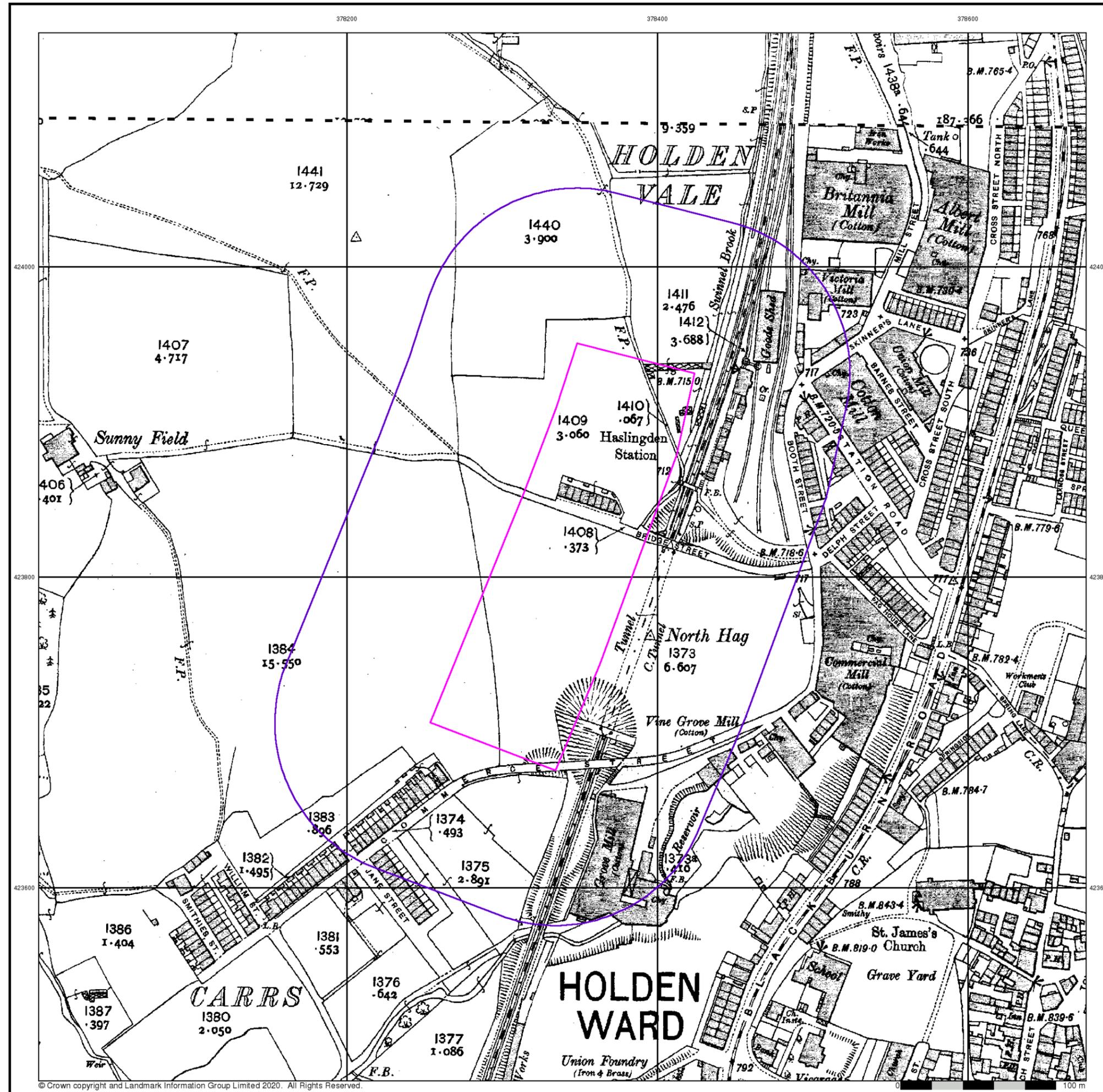
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Site Details
 Site at, Rossendale Valley, Lancashire

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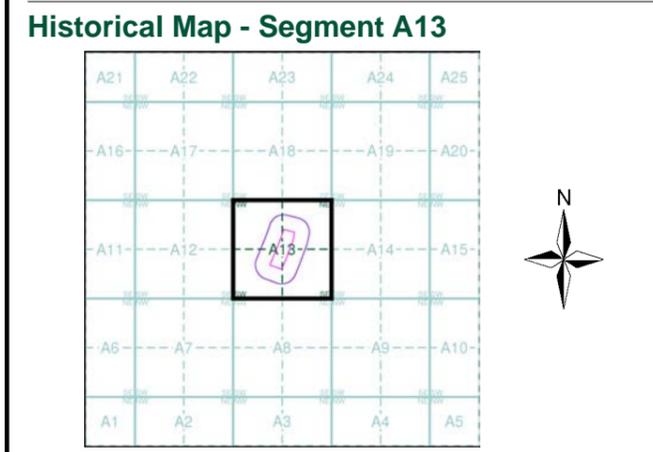


M M
MOTT MACDONALD
Lancashire And Furness
Published 1911
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

071_08	1911	1:2,500
071_12	1911	1:2,500



Order Details

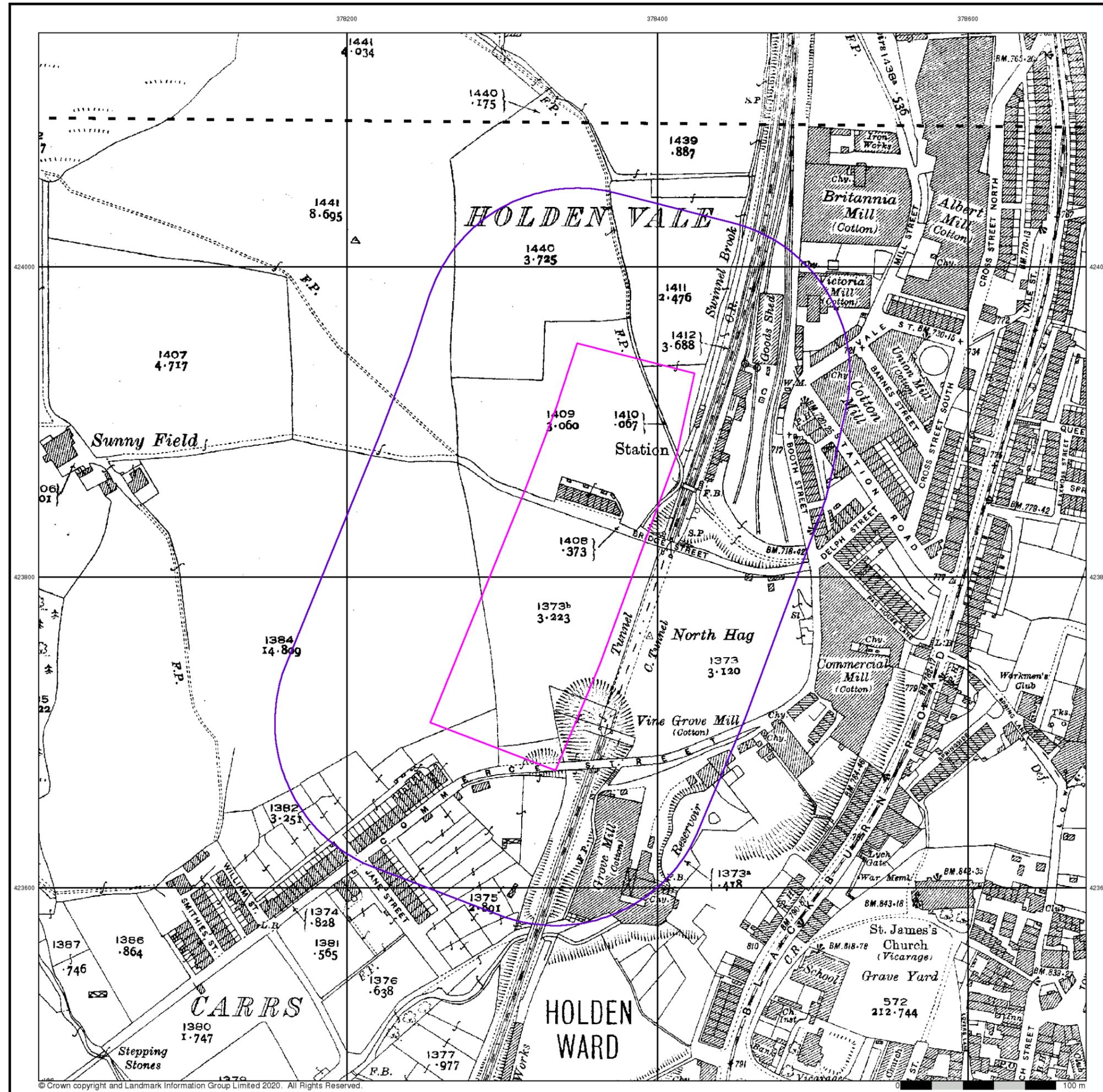
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 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
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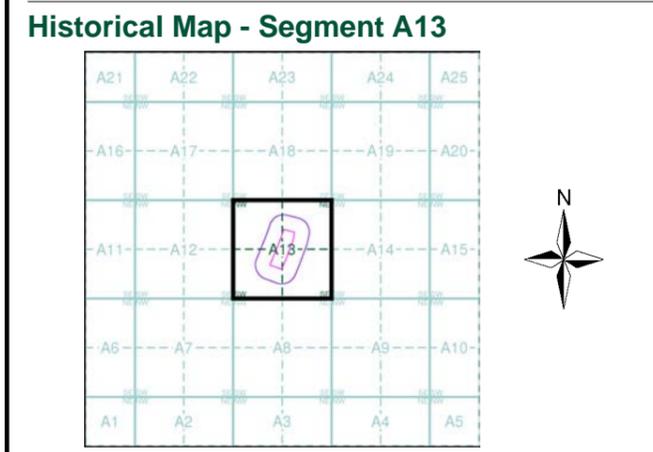


M M
MOTT MACDONALD
Lancashire And Furness
Published 1930
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

071_08	1930	1:2,500
071_12	1930	1:2,500



Order Details

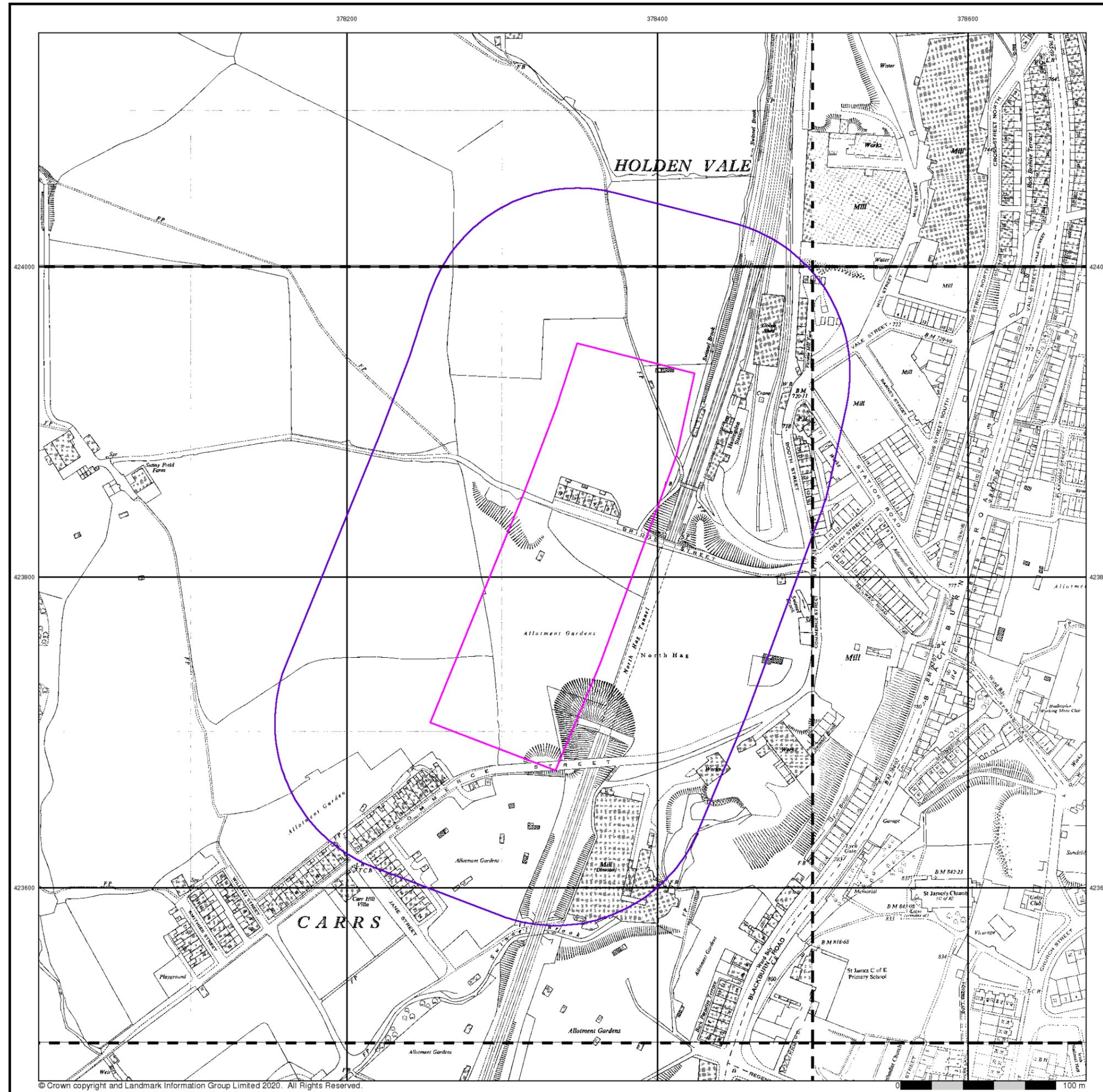
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 National Grid Reference: 378340, 423810
 Slice: A
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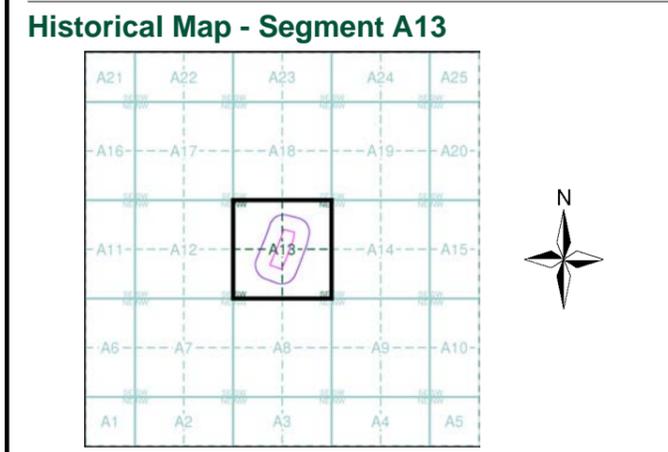


M M
MOTT MACDONALD
Ordnance Survey Plan
Published 1961
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SD7824SV	SD7824SE
961	961
:1,250	:1,250
SD7823NV	SD7823NE
961	961
:1,250	:1,250
SD7823SW	SD7823SE
961	961
:1,250	:1,250

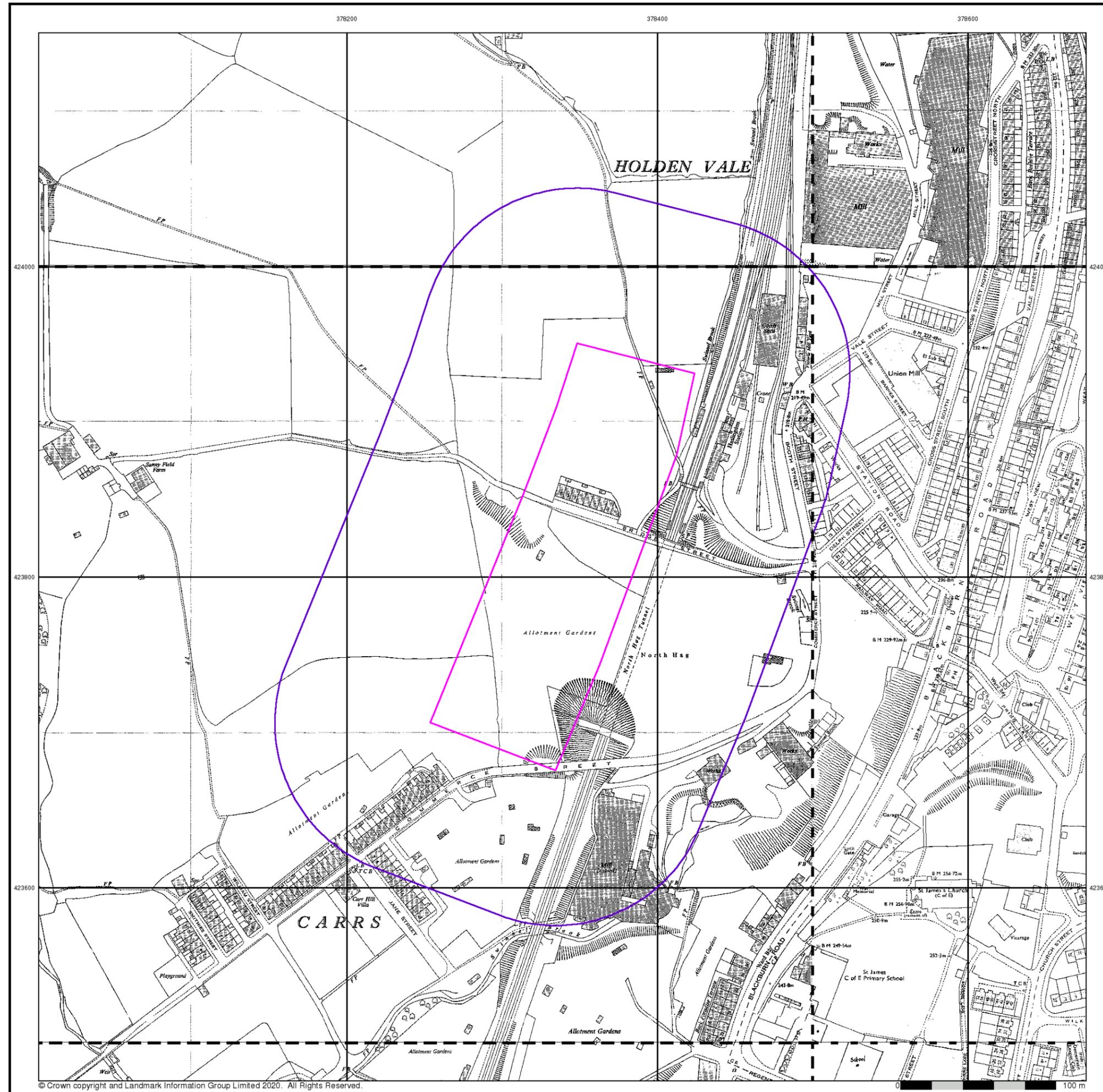


Order Details

Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 100

Site Details

Site at, Rossendale Valley, Lancashire



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MACDONALD

Additional SIMs

Published 1961 - 1984

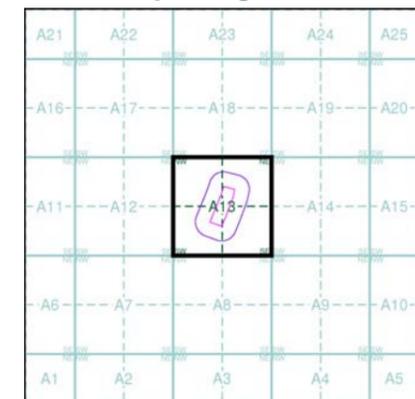
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

ID7824SV6D7824SE	961	1961
	1:1,250	1:1,250
ID7823NV6D7823NE	961	1977
	1:1,250	1:1,250
ID7823SV6D7823SE	961	1984
	1:1,250	1:1,250

Historical Map - Segment A13



Order Details

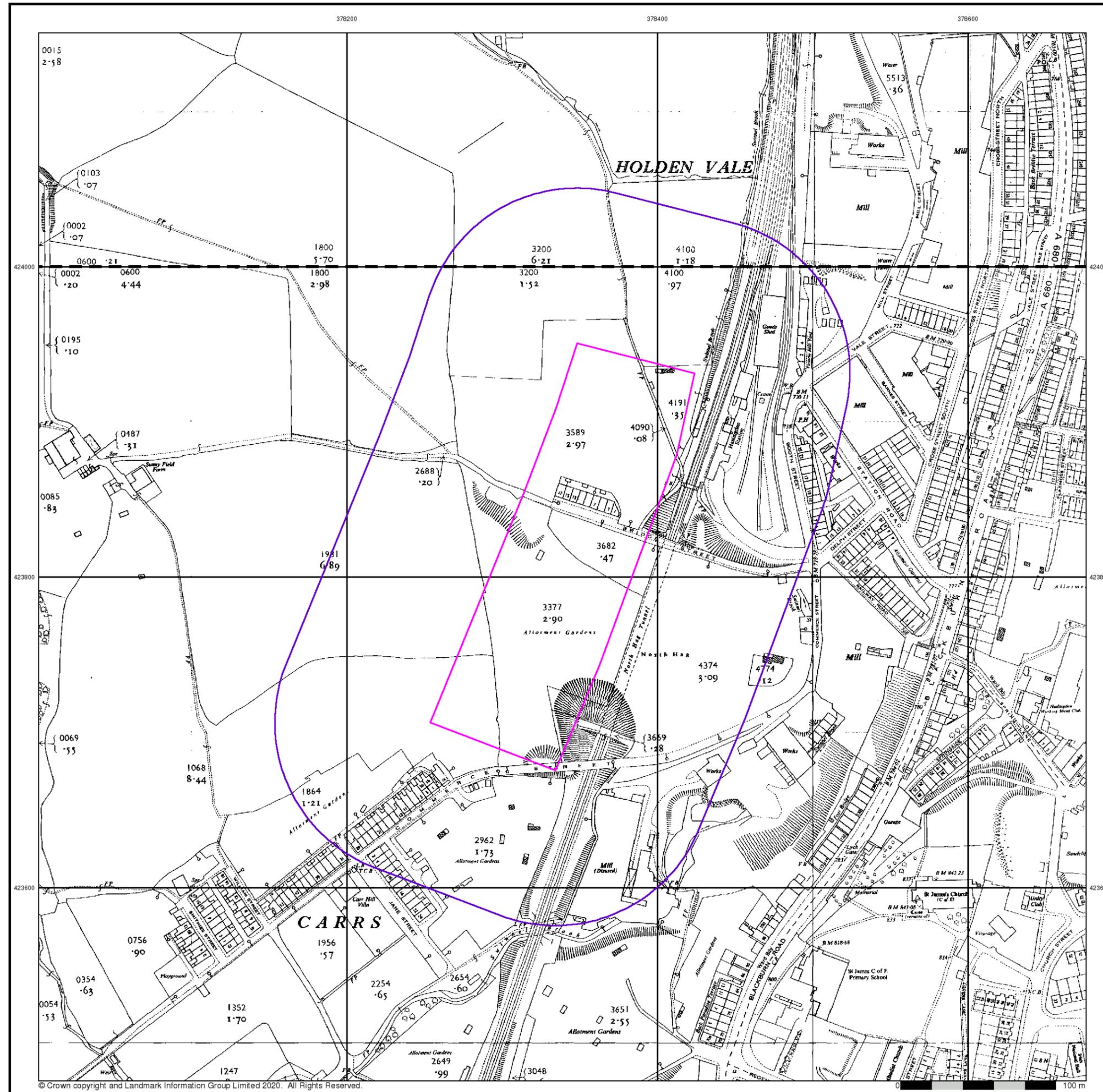
Order Number: 241411014_1_1
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Site Details

Site at, Rossendale Valley, Lancashire

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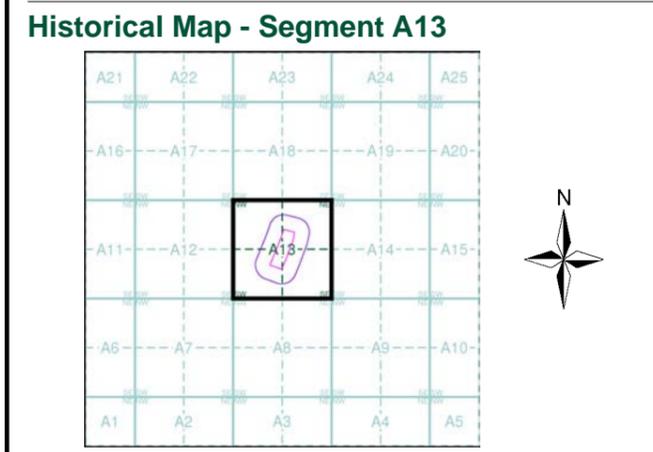


M M
MOTT MACDONALD
Ordnance Survey Plan
Published 1963
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SD7824	1963	1:2,500
SD7823	1963	1:2,500



Order Details

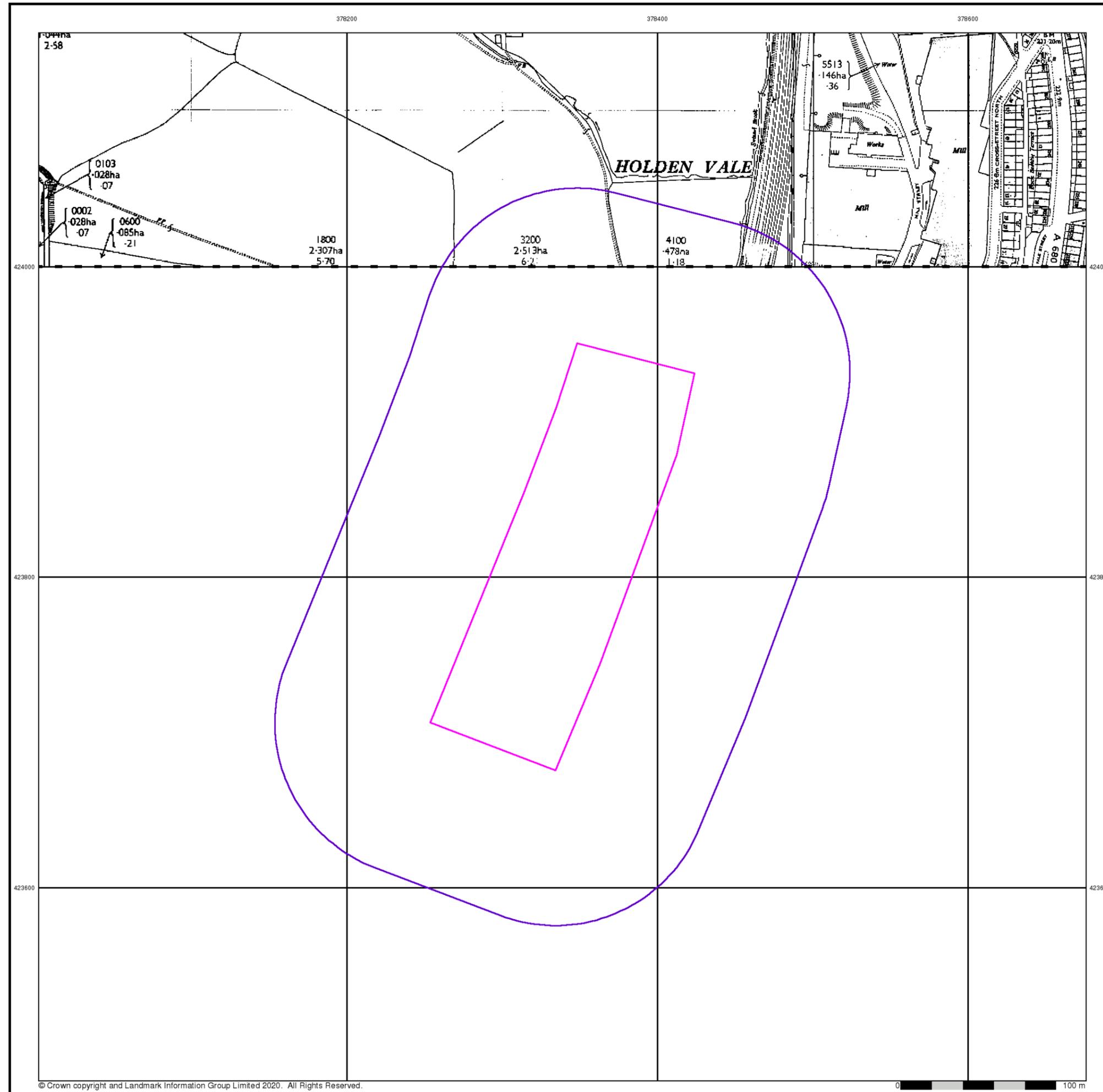
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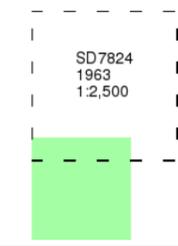
Additional SIMs

Published 1963

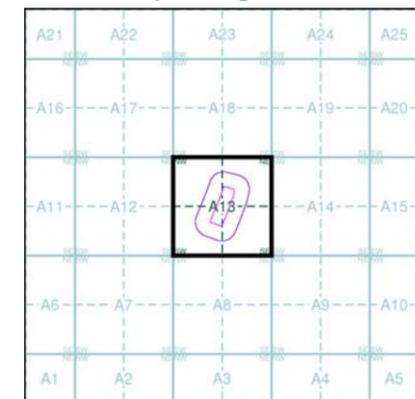
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

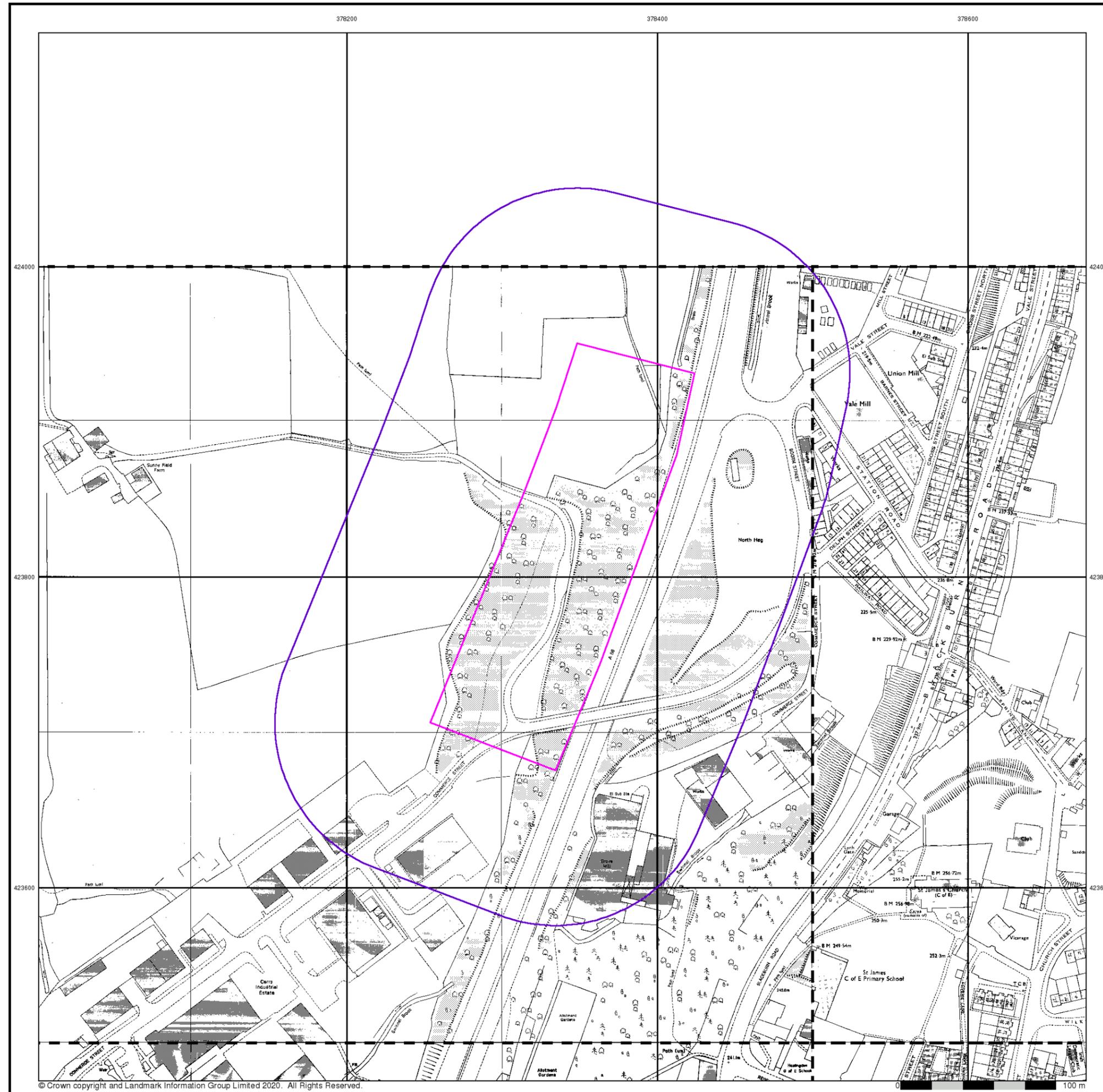
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Site Details

Site at, Rossendale Valley, Lancashire

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Ordnance Survey Plan

Published 1971 - 1989

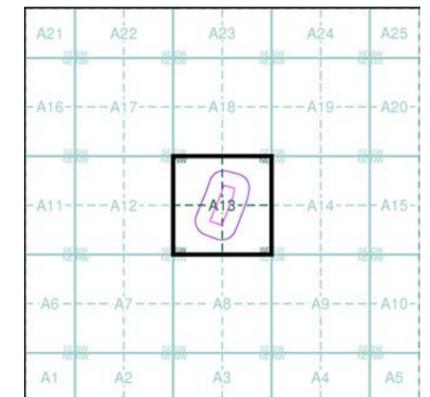
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SD7823NW 1989 1:1,250	SD7823NE 1973 1:1,250
SD7823SW 1988 1:1,250	SD7823SE 1971 1:1,250

Historical Map - Segment A13



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378200

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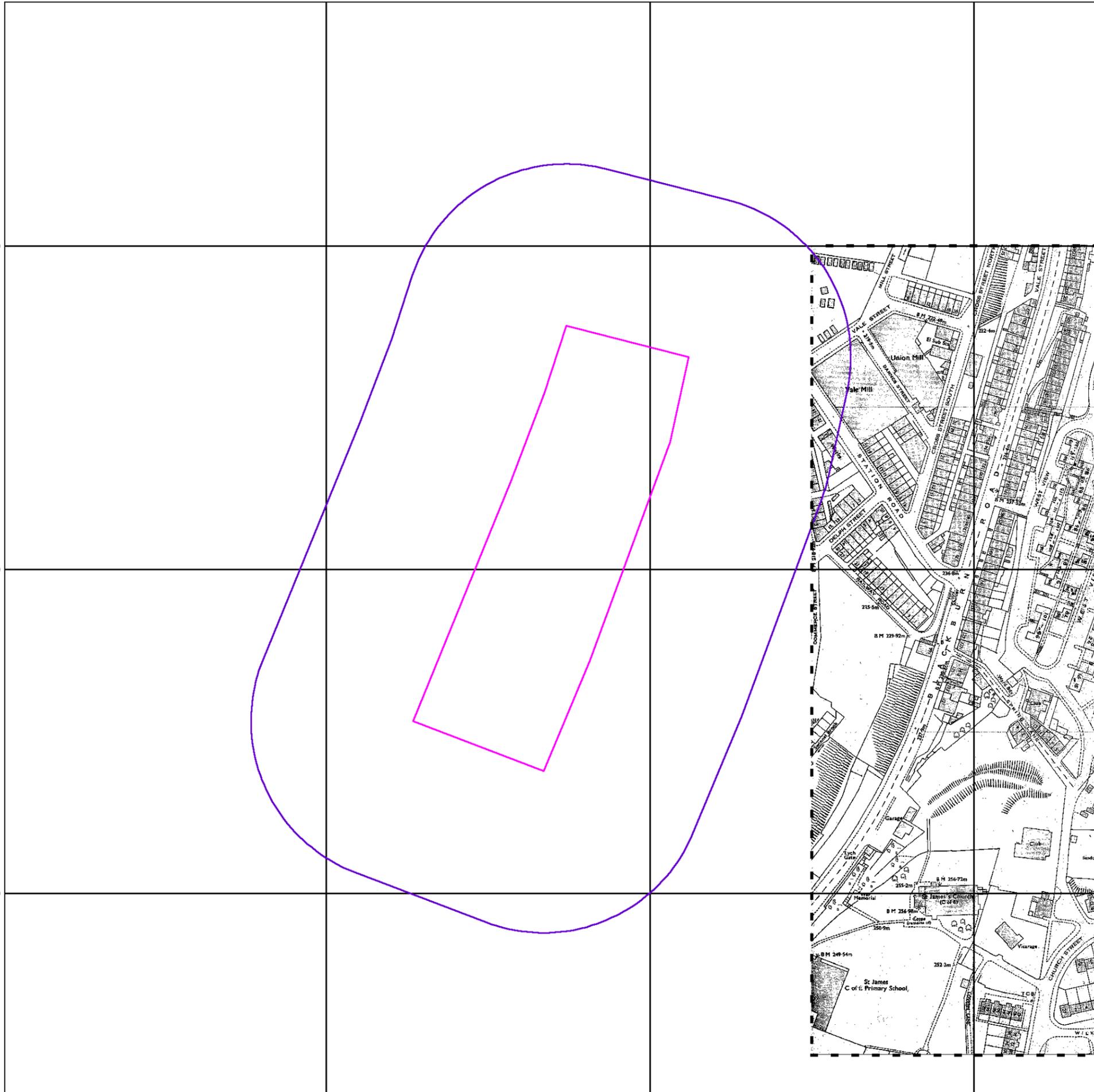
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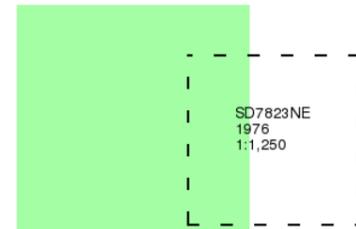
Supply of Unpublished Survey Information

Published 1976

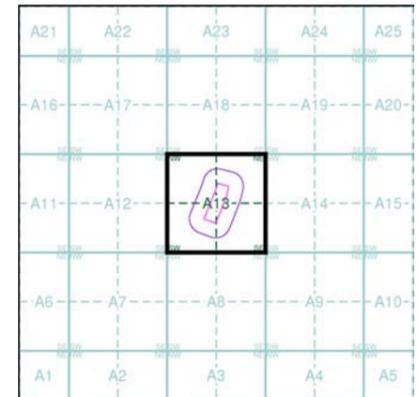
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13

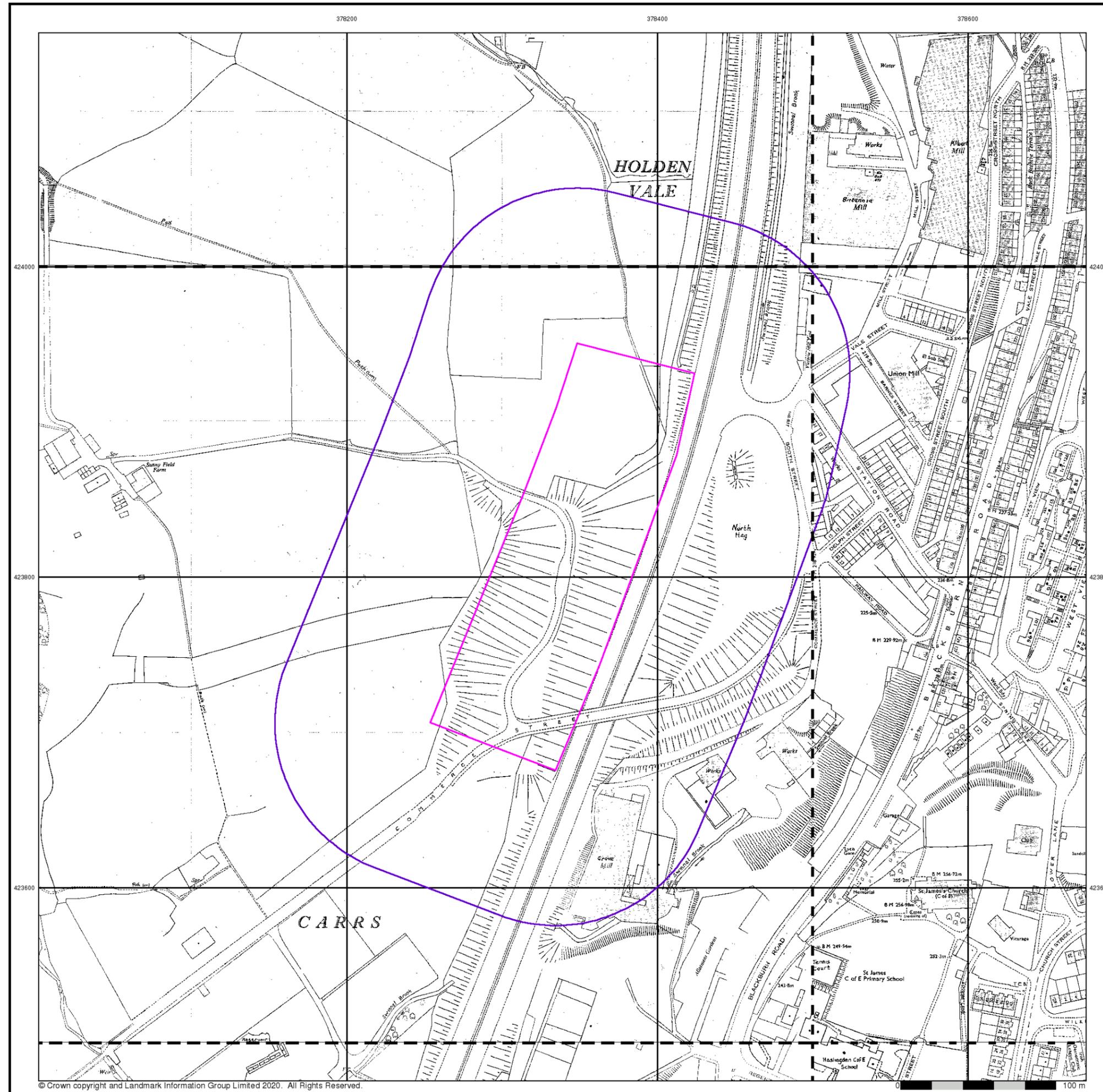


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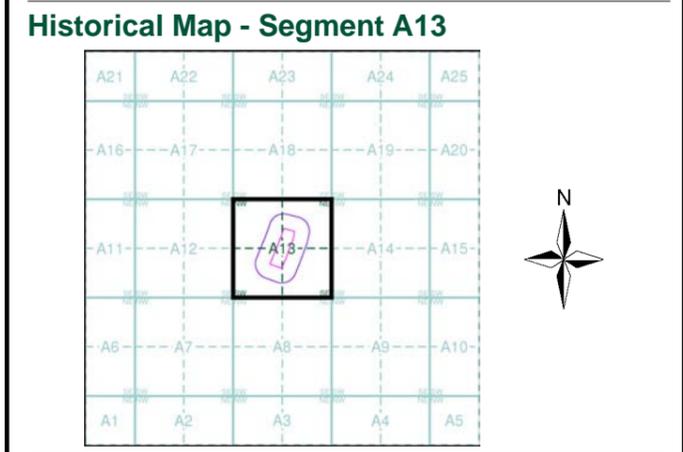


M M
MOTT MACDONALD
Additional SIMs
Published 1983 - 1987
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

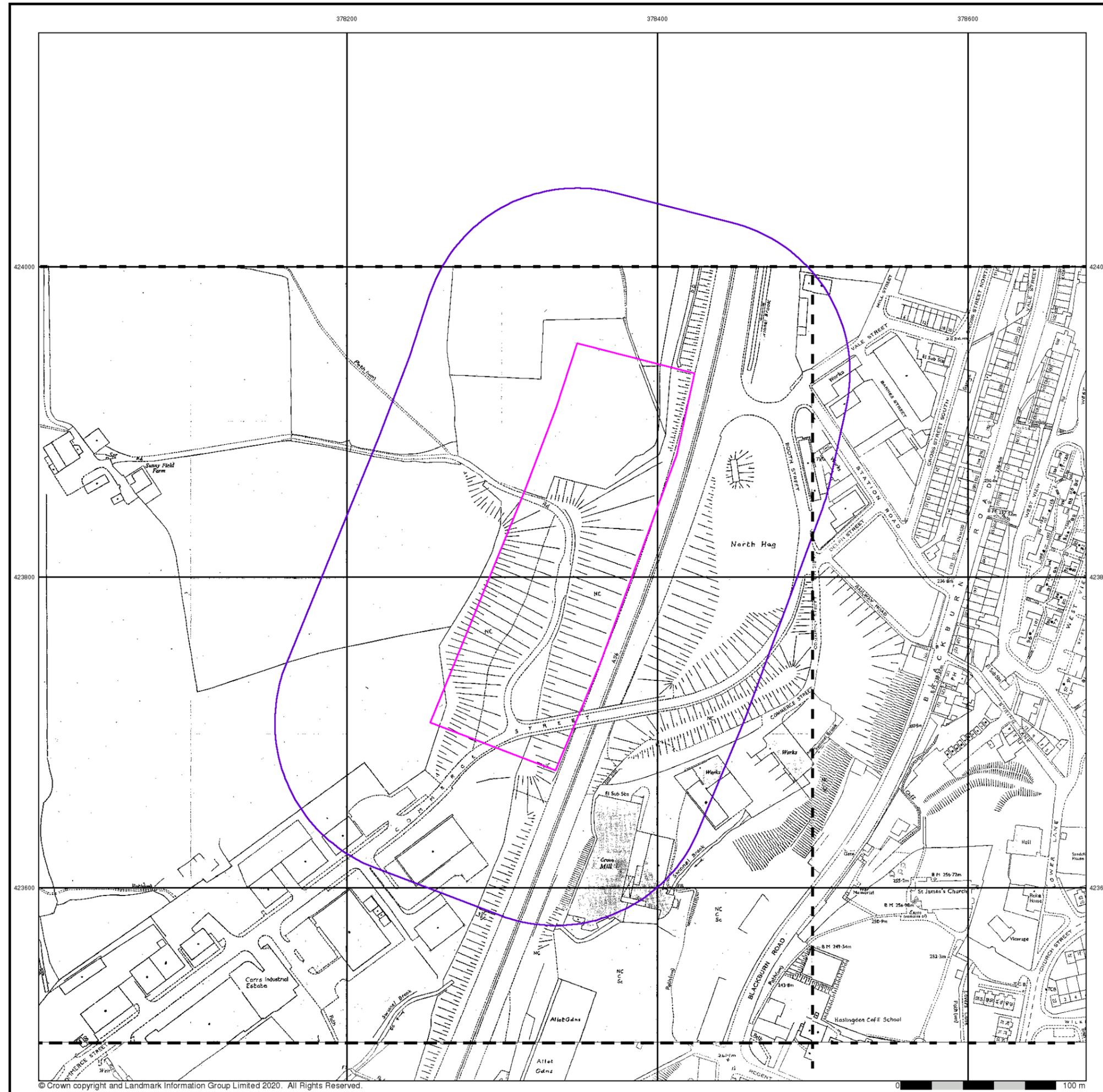
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	1:1,250	1:1,250
ID7823NV6D7823NE	1983	1986
	1:1,250	1:1,250
ID7823SV6D7823SE	1983	1987
	1:1,250	1:1,250



Order Details

Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 100

Site Details
 Site at, Rossendale Valley, Lancashire



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 MACDONALD

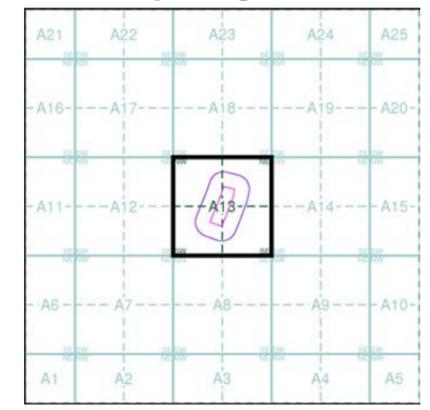
Additional SIMs
Published 1985 - 1987
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SD7823NW 1987 1:1,250	SD7823NE 1987 1:1,250
SD7823SW 1985 1:1,250	

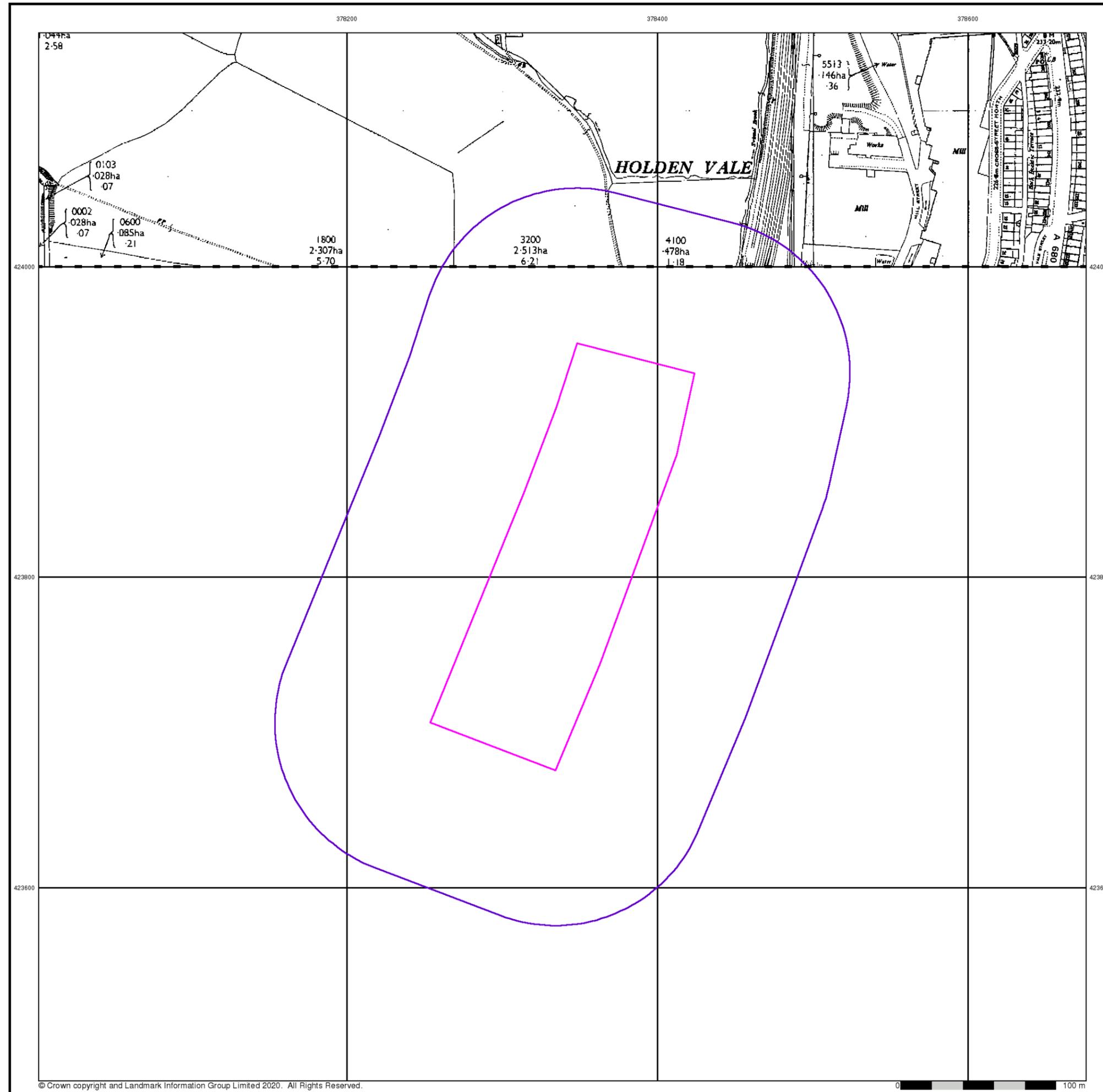
Historical Map - Segment A13



Order Details
 Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 100

Site Details
 Site at, Rossendale Valley, Lancashire

Landmark
 INFORMATION GROUP
 Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



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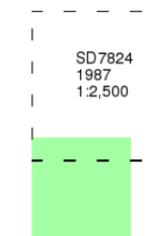
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Published 1987

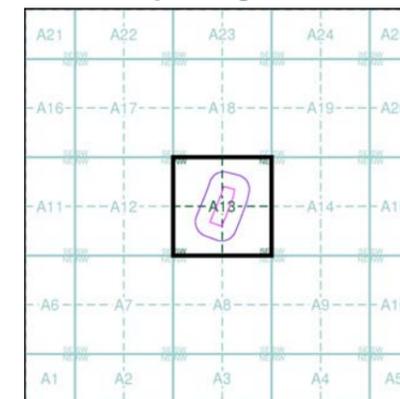
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

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Site Details

Site at, Rossendale Valley, Lancashire

Landmark
 INFORMATION GROUP

Tel: 0844 844 9952
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378200

378400

378600

424000

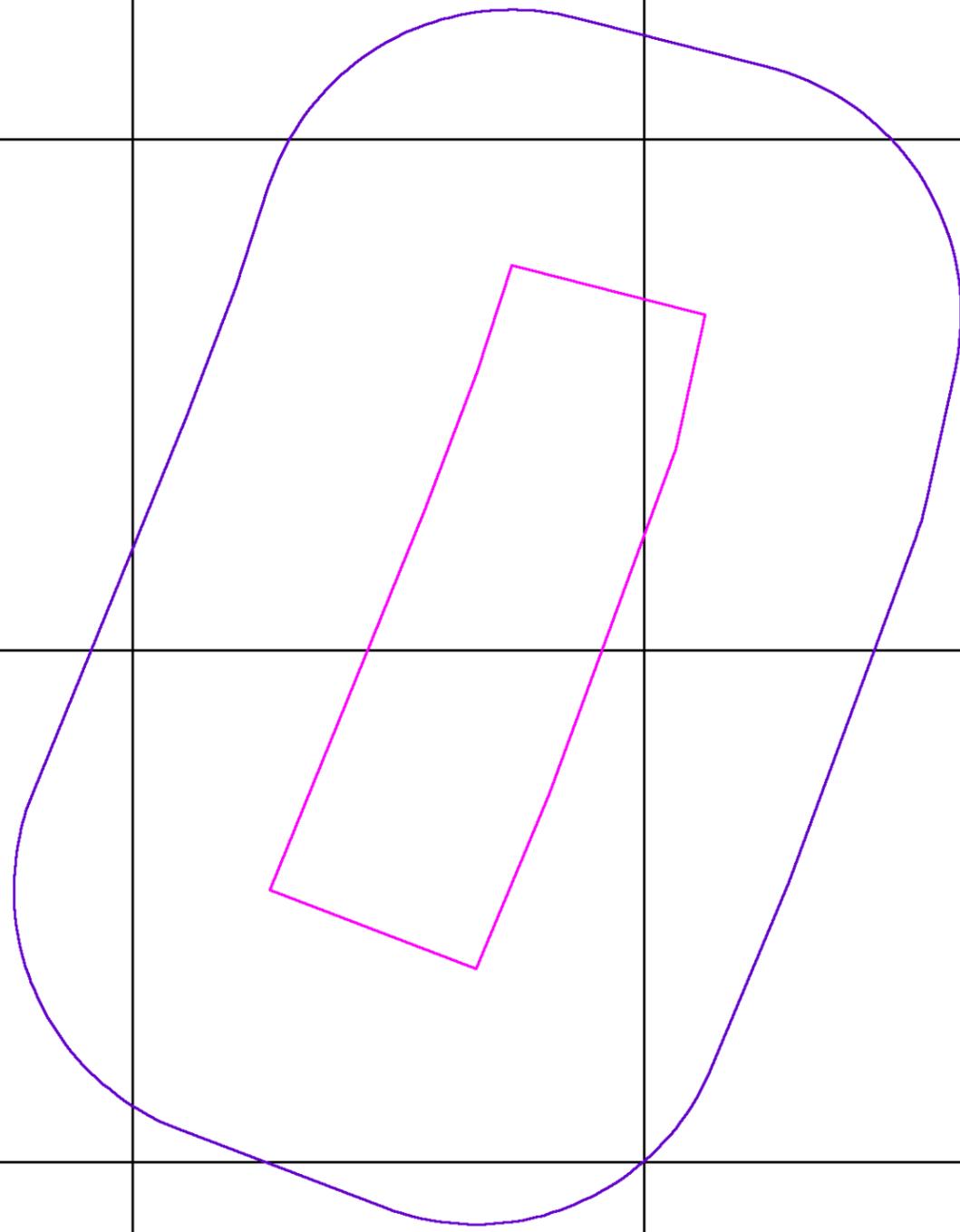
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423800

423800

423600

423600



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Ordnance Survey Plan

Published 1990

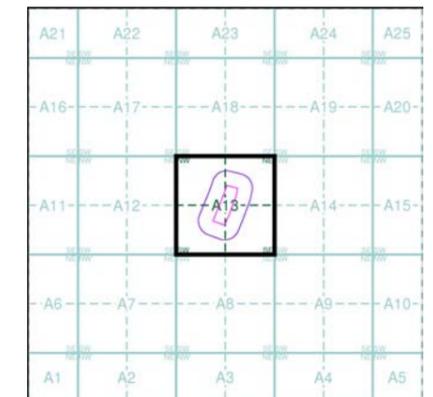
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



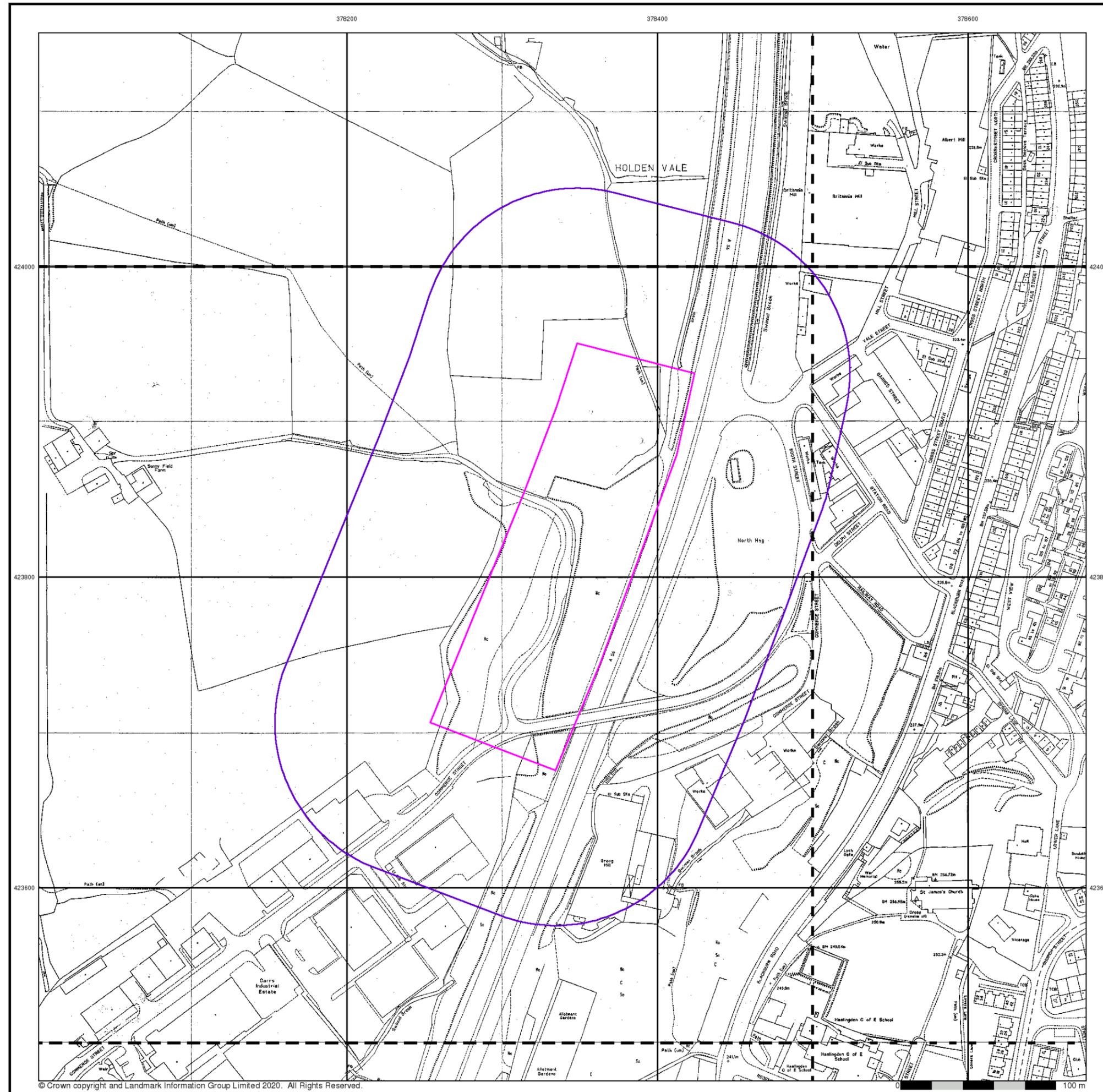
Order Details

Order Number: 241411014_1_1
 Customer Ref: 391034AA06
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 Slice: A
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 Search Buffer (m): 100

Site Details

Site at, Rossendale Valley, Lancashire





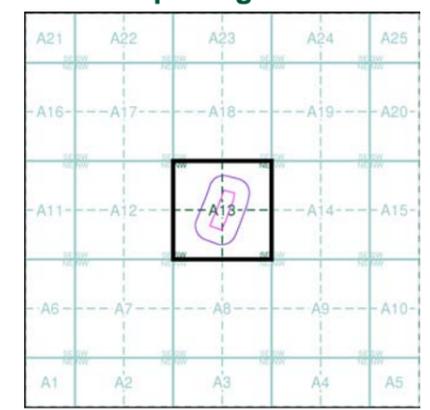
M M
MOTT MACDONALD
Large-Scale National Grid Data
Published 1993
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

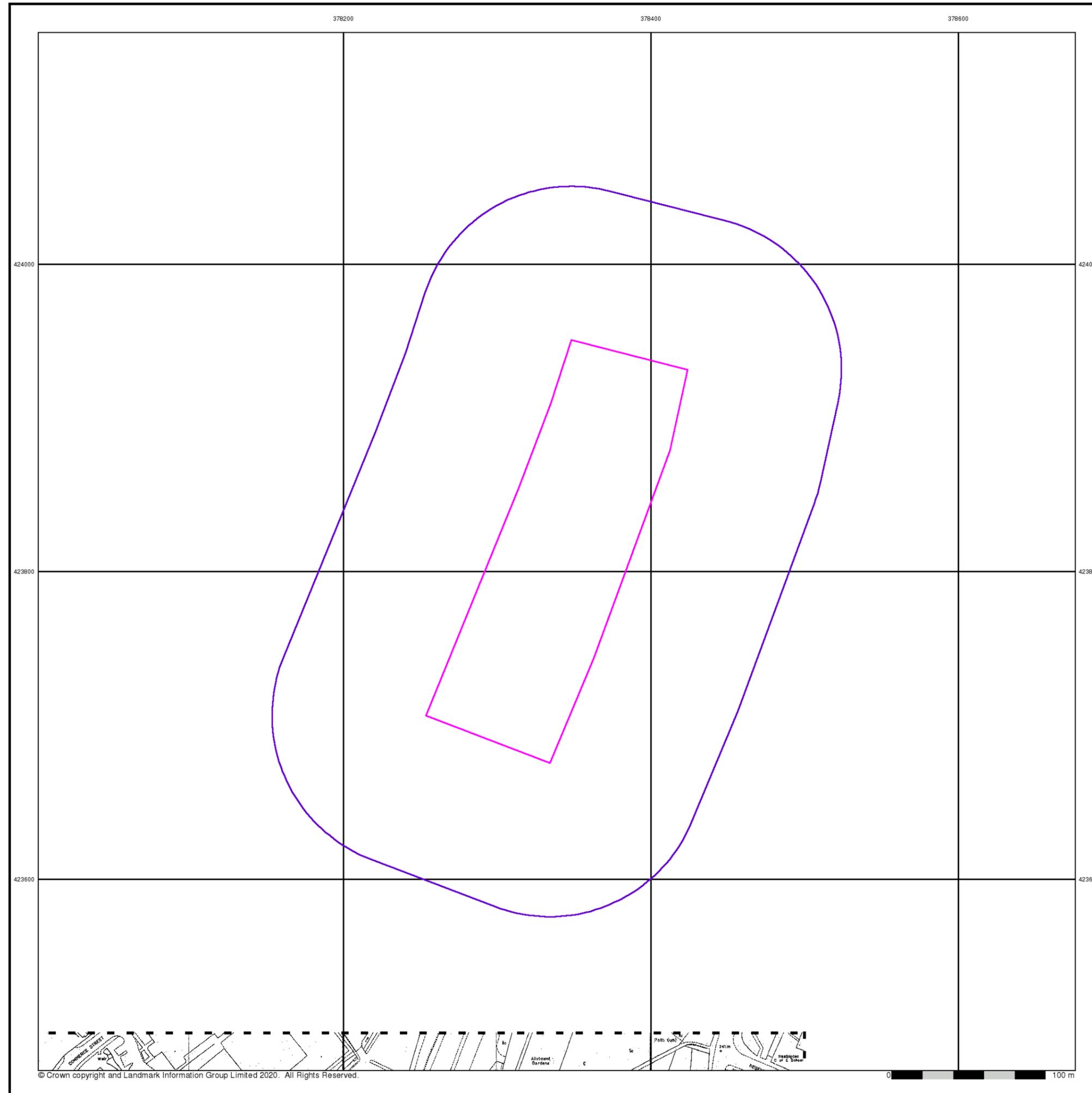
ID7824SWED7824SE	993	1993
1:1,250	1:1,250	
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1:1,250	1:1,250	
ID7823SWED7823SE	993	1993
1:1,250	1:1,250	

Historical Map - Segment A13



Order Details
 Order Number: 241411014_1_1
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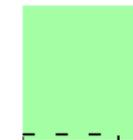
Site Details
 Site at, Rossendale Valley, Lancashire



M M
MOTT MACDONALD
Large-Scale National Grid Data
Published 1993
Source map scale - 1:1,250

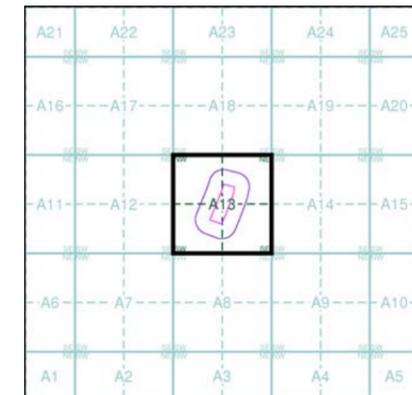
'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



SD7823SW
 1993
 1:1,250

Historical Map - Segment A13



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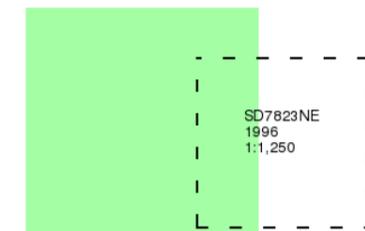
Large-Scale National Grid Data

Published 1996

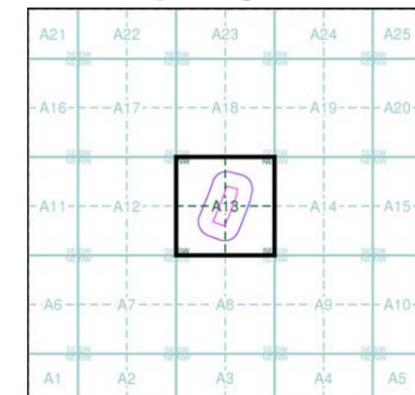
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

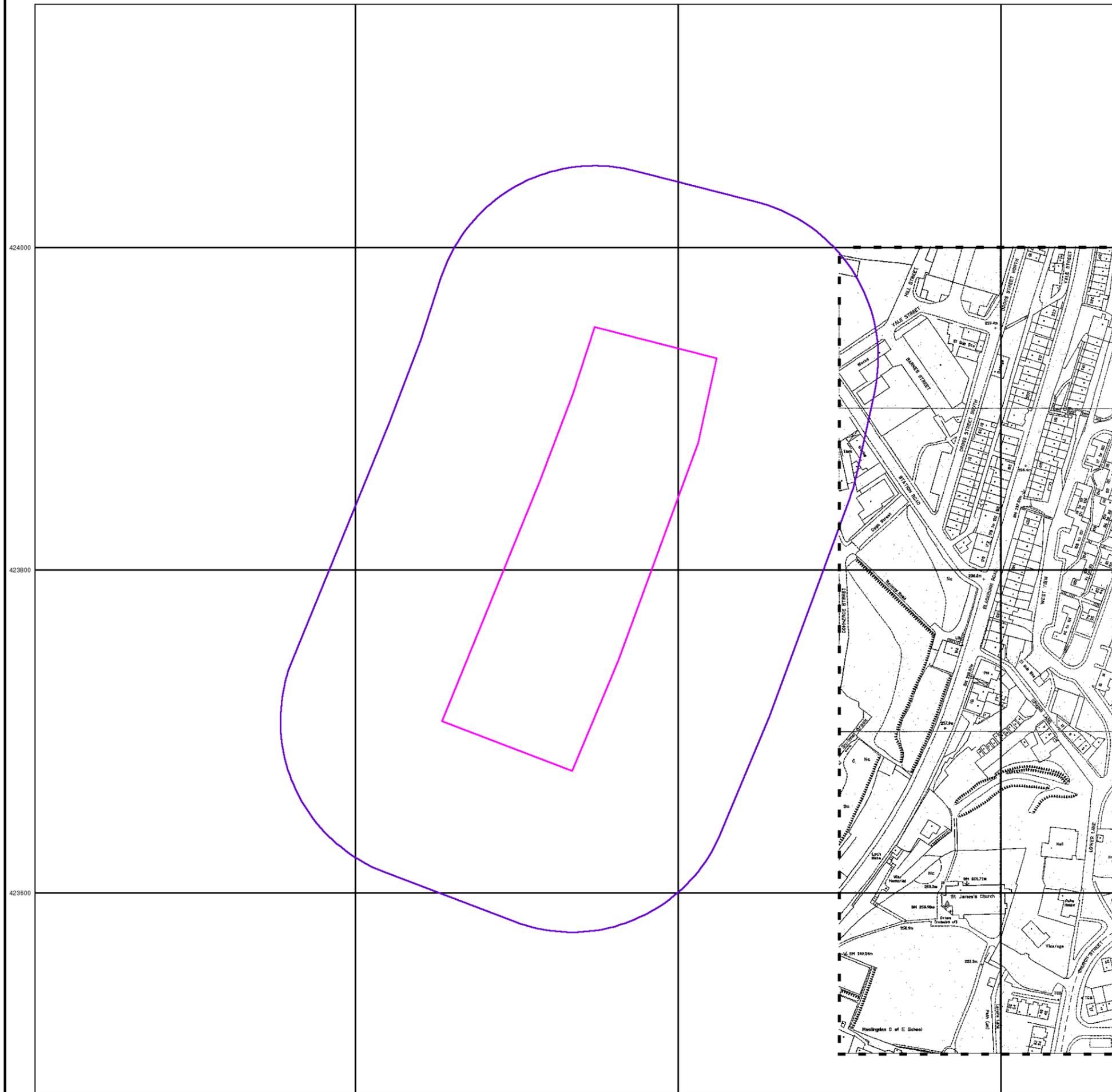
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National Grid Reference: 378340, 423810
Slice: A
Site Area (Ha): 2.26
Search Buffer (m): 100

Site Details

Site at, Rossendale Valley, Lancashire

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378200

378400

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424000

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423800

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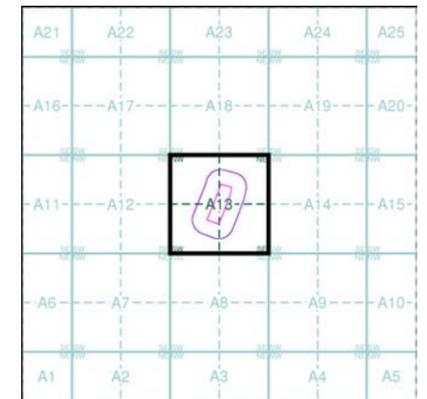
© Copyright Getmapping plc

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MOTT MACDONALD
Historical Aerial Photography
Published 2001

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	-285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Coppice		
	Bracken		Heath
	Rough Grassland		
	Marsh		Reeds
	Saltings		
	Building		Glasshouse
	Sloping Masonry		Pylon
	Electricity Transmission Line		Pole
	Cutting		Embankment
	Standard Gauge Multiple Track		
	Standard Gauge Single Track		
	Siding, Tramway or Mineral Line		
	Narrow Gauge		
	Geographical County		
	Administrative County, County Borough or County of City		
	Municipal Borough, Urban or Rural District, Burgh or District Council		
	Borough, Burgh or County Constituency Shown only when not coincident with other boundaries		
	Civil Parish Shown alternately when coincidence of boundaries occurs		
	BP, BS Boundary Post or Stone		Pol Sta Police Station
	Ch Church		PO Post Office
	CH Club House		PC Public Convenience
	F E Sta Fire Engine Station		PH Public House
	FB Foot Bridge		SB Signal Box
	Fn Fountain		Spr Spring
	GP Guide Post		TCB Telephone Call Box
	MP Mile Post		TCP Telephone Call Post
	MS Mile Stone		W Well

1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	MHW(S) Mean high water (springs)		MLW(S) Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building

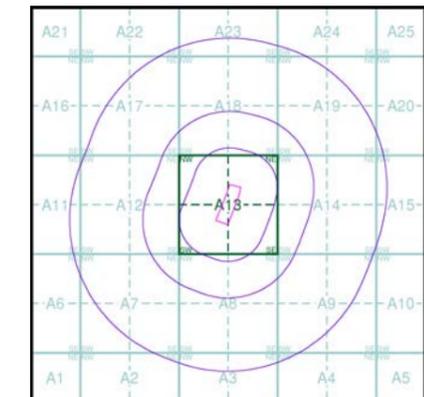
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MACDONALD

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1849	2
Lancashire And Furness	1:10,560	1894	3
Lancashire And Furness	1:10,560	1911 - 1912	4
Lancashire And Furness	1:10,560	1931	5
Lancashire And Furness	1:10,560	1931	6
Lancashire And Furness	1:10,560	1938	7
Ordnance Survey Plan	1:10,000	1955 - 1956	8
Ordnance Survey Plan	1:10,000	1965	9
Ordnance Survey Plan	1:10,000	1979	10
Ordnance Survey Plan	1:10,000	1981	11
Ordnance Survey Plan	1:10,000	1990 - 1991	12
10K Raster Mapping	1:10,000	2001	13
10K Raster Mapping	1:10,000	2006	14
VectorMap Local	1:10,000	2020	15

Historical Map - Slice A



Order Details

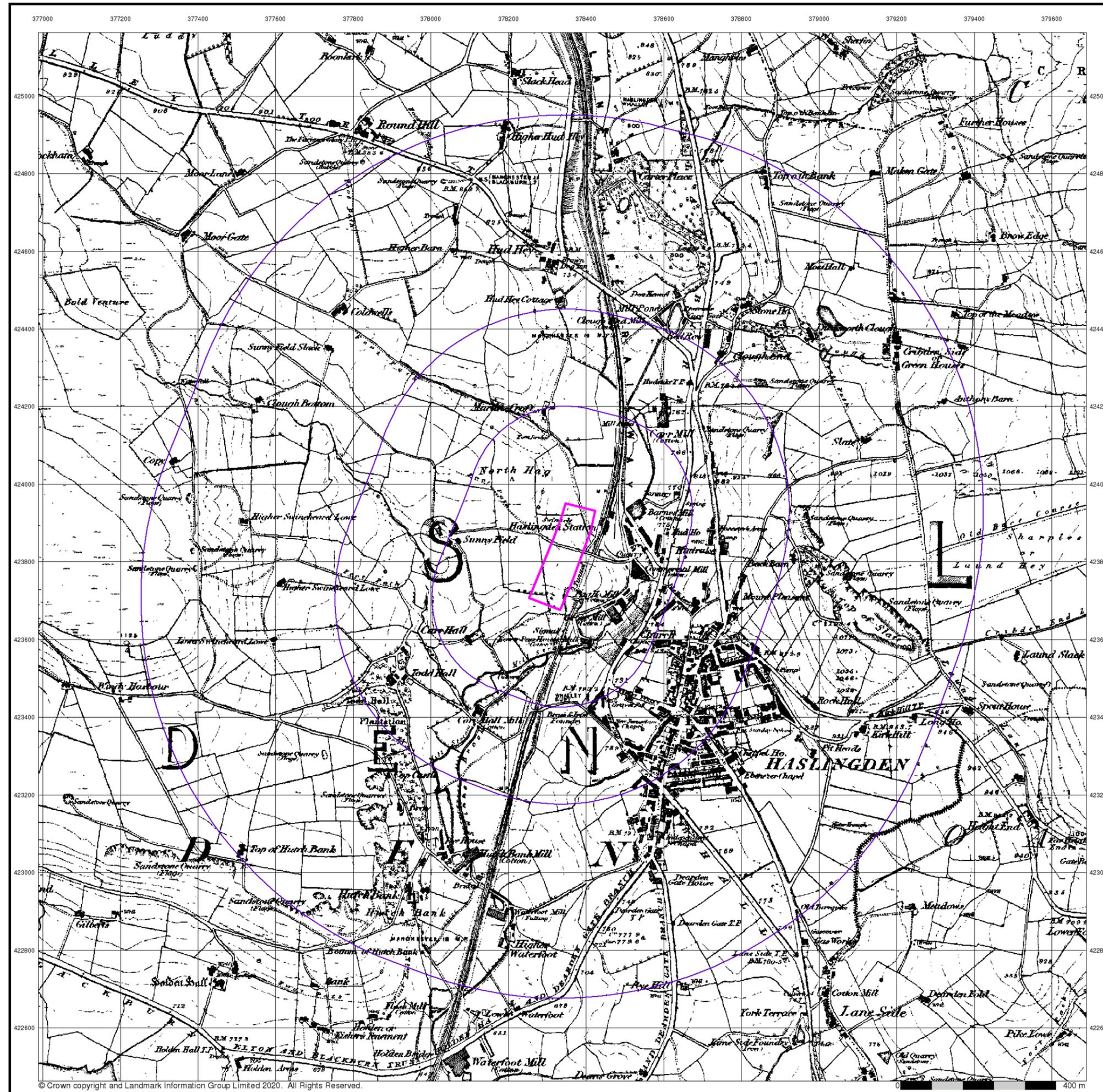
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 Customer Ref: 391034AA06
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 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

Site at, Rossendale Valley, Lancashire

Landmark
INFORMATION GROUP

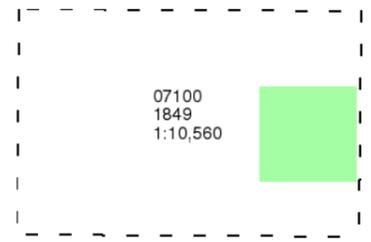
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



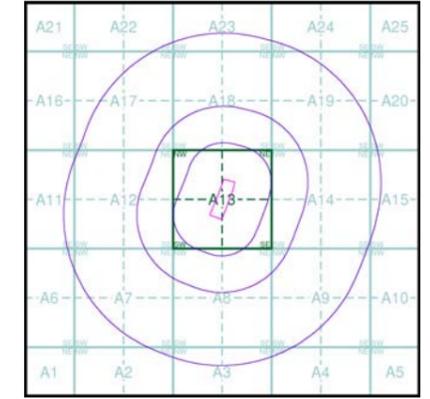
M M
MOTT
MACDONALD
Lancashire And Furness
Published 1849
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



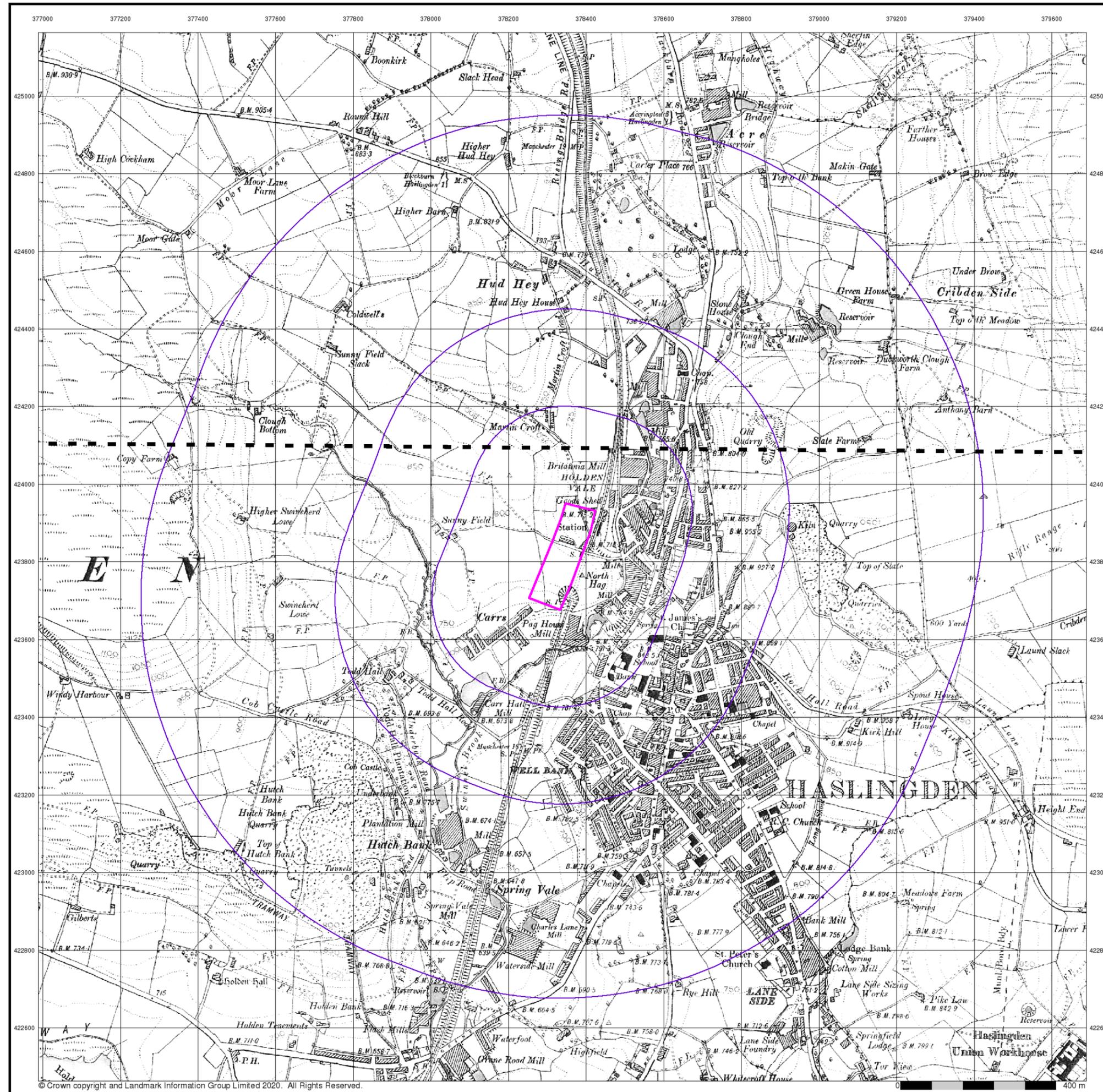
Historical Map - Slice A



Order Details
 Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details
 Site at, Rossendale Valley, Lancashire

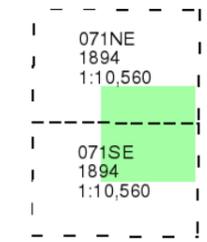
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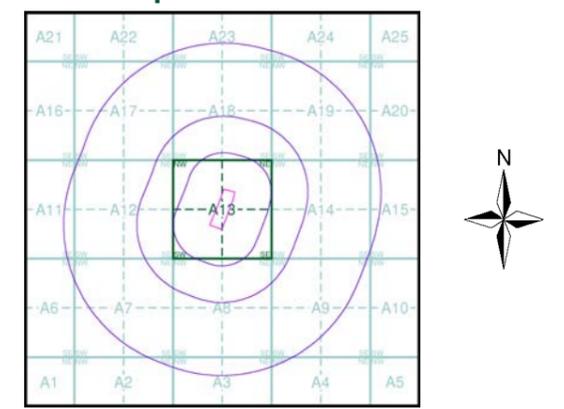
M M
MOTT MACDONALD
Lancashire And Furness
Published 1894
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

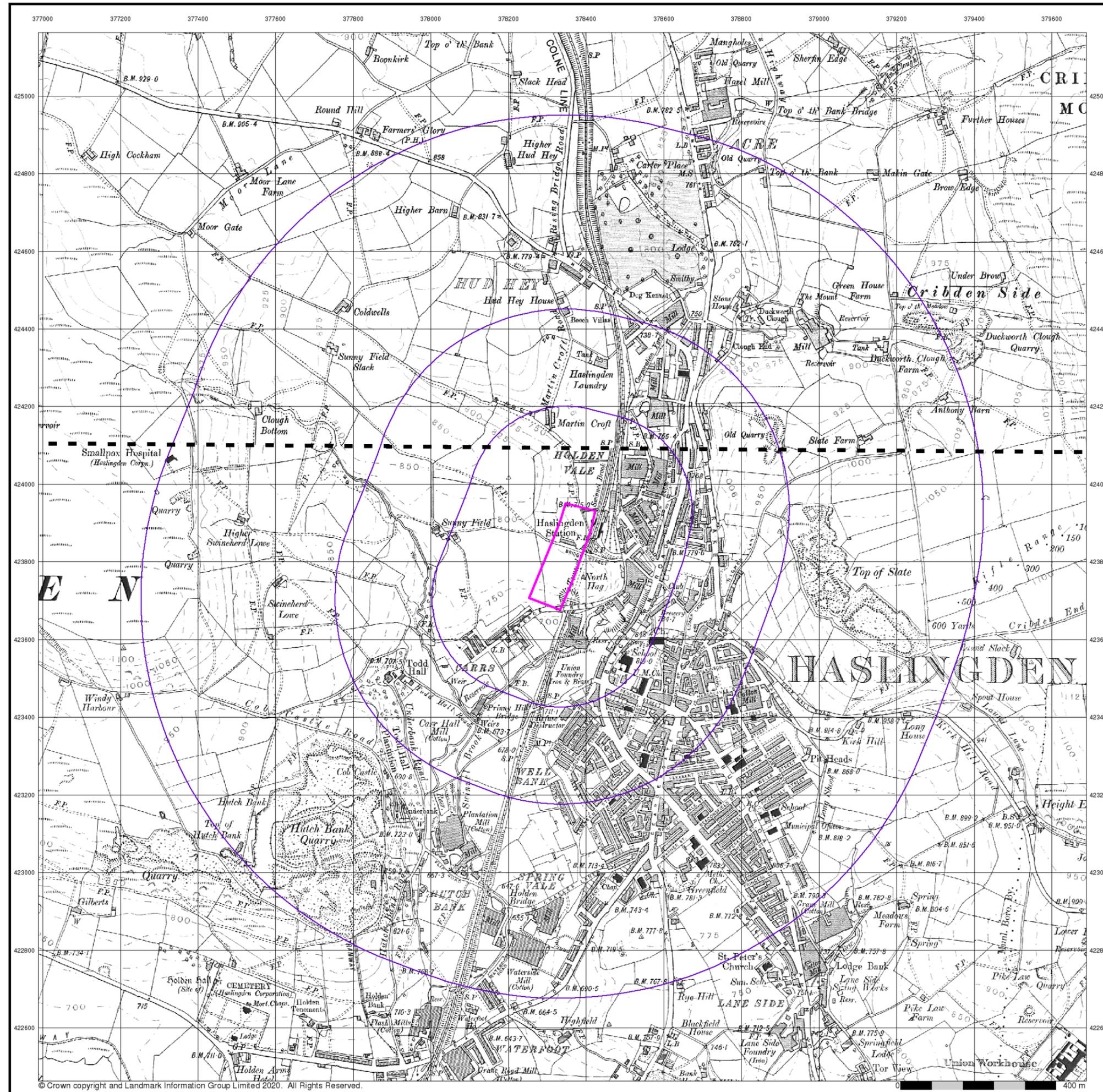
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Site Details

Site at, Rossendale Valley, Lancashire

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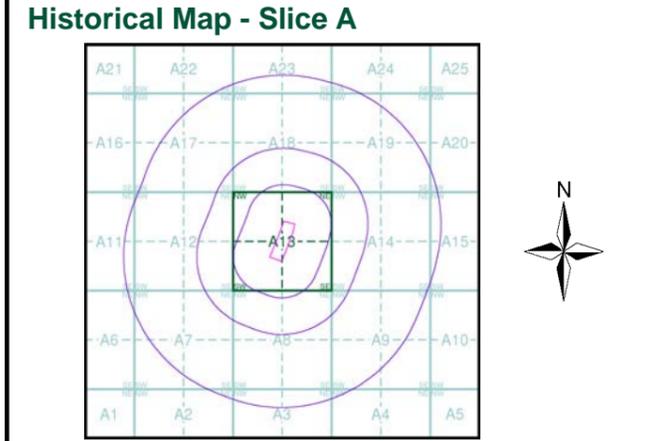


M M
MOTT MACDONALD
Lancashire And Furness
Published 1911 - 1912
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

071NE	1912	1:10,560
071SE	1911	1:10,560



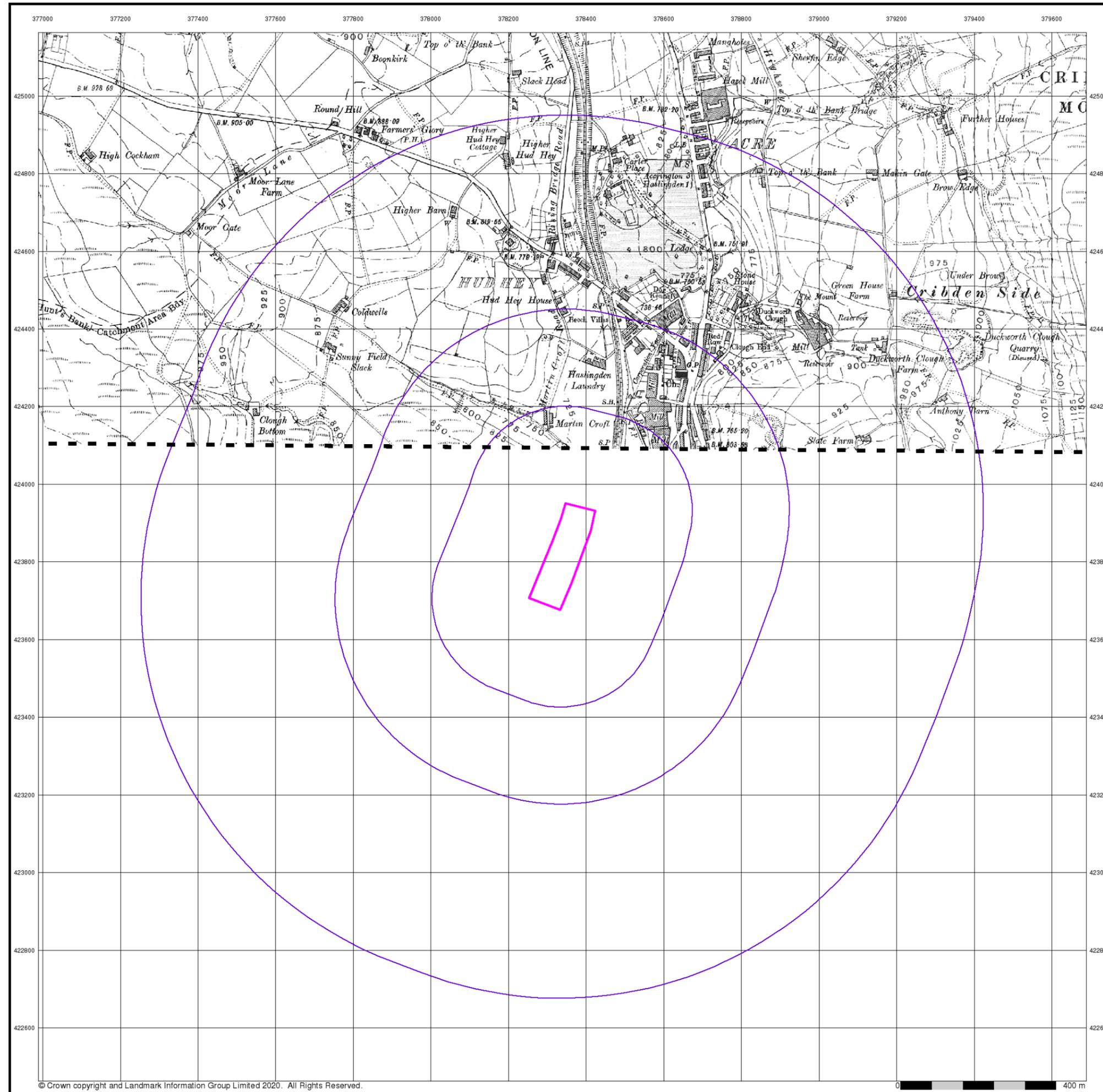
Order Details

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Landmark
 INFORMATION GROUP

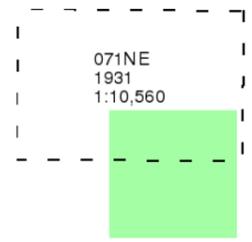
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



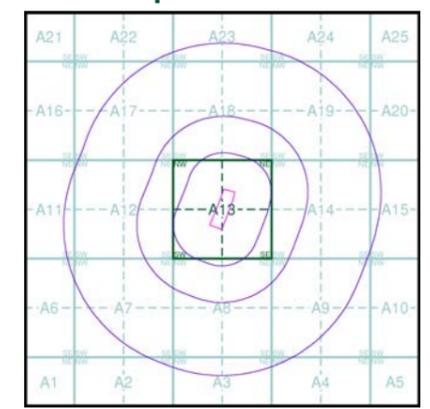
M M
MOTT MACDONALD
Lancashire And Furness
Published 1931
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



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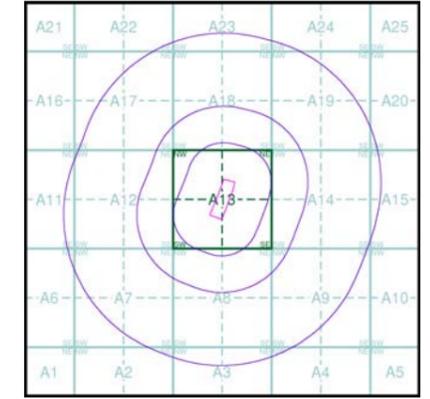
M M
MOTT MACDONALD
Lancashire And Furness
Published 1938
Source map scale - 1:10,560

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Map Name(s) and Date(s)

071NE	1938	1:10,560
071SE	1938	1:10,560

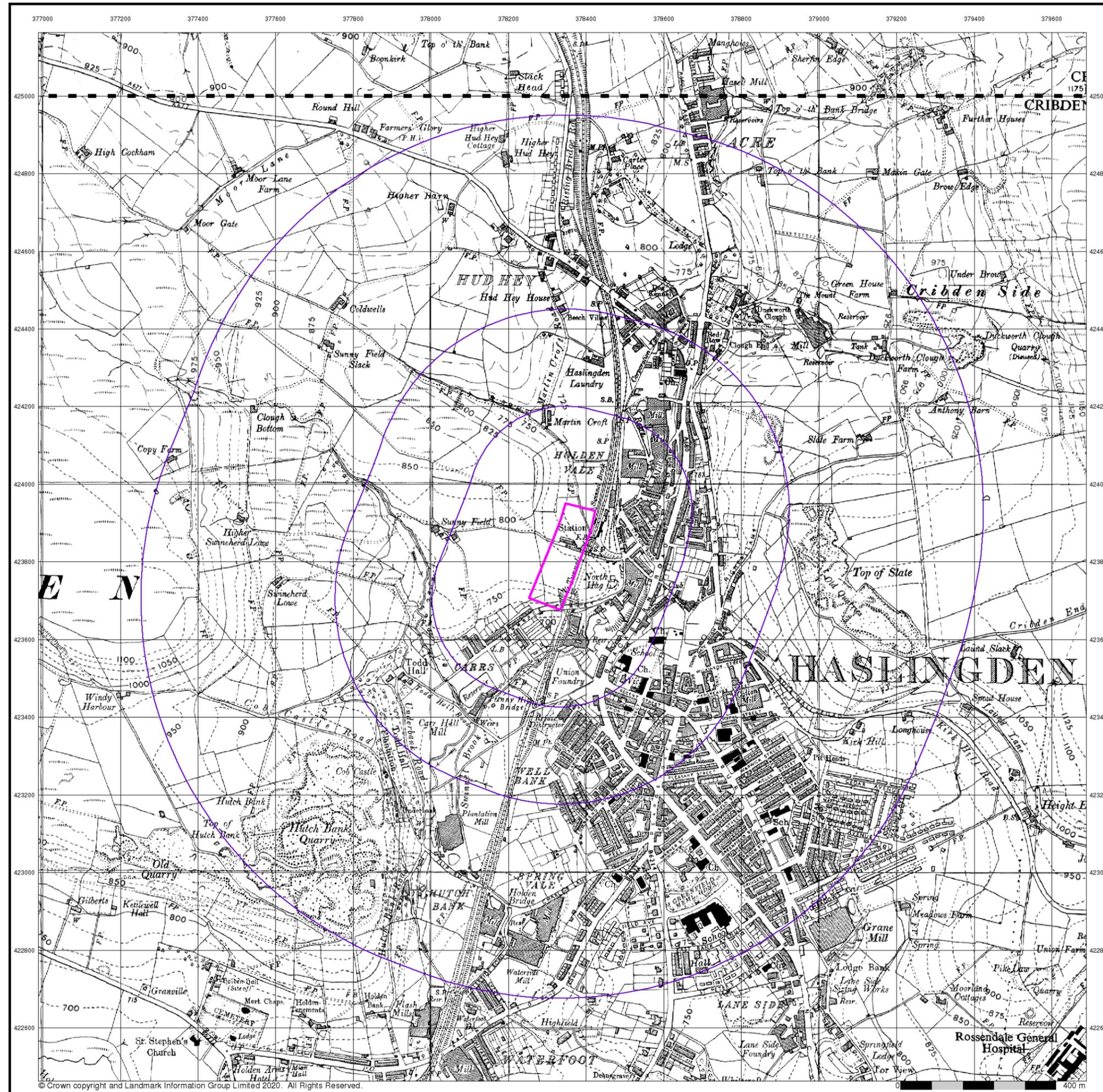
Historical Map - Slice A



Order Details
 Order Number: 241411014_1_1
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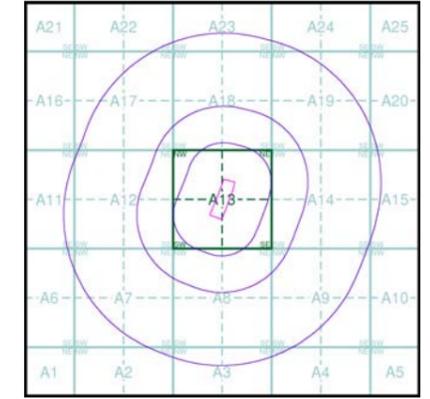
M M
MOTT MACDONALD
Ordnance Survey Plan
Published 1955 - 1956
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SD72NE	1956	1:10,560
SD72SE	1955	1:10,560

Historical Map - Slice A



Order Details

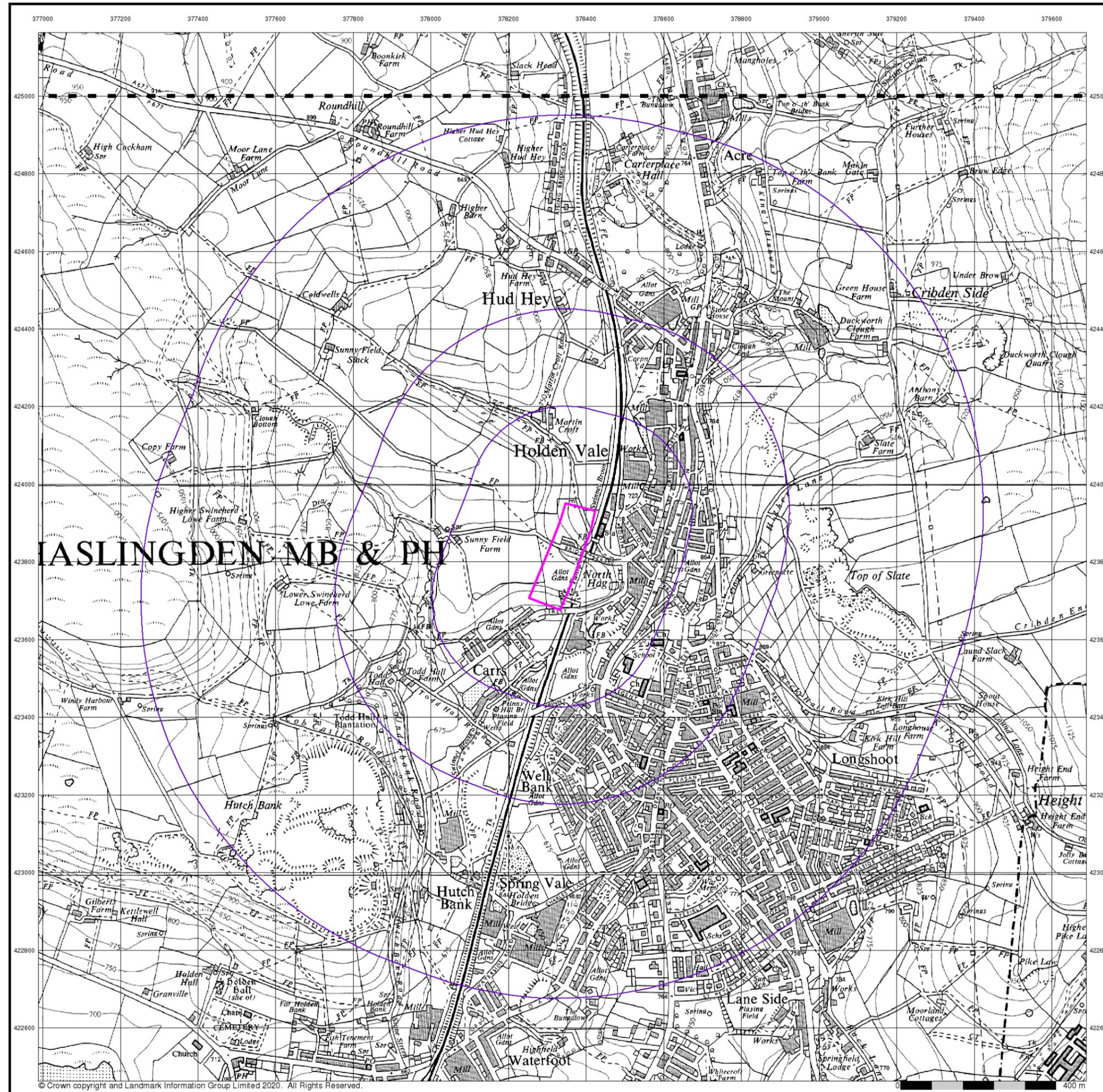
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 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

Site at, Rossendale Valley, Lancashire



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LASLINGDEN MB & PH

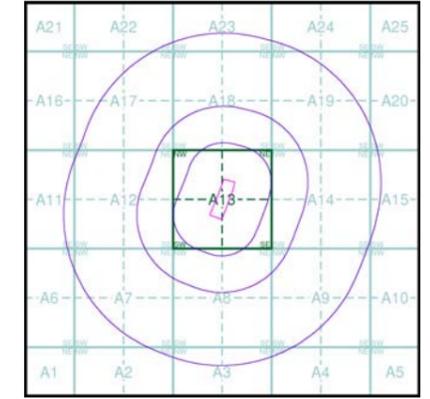
M M
MOTT MACDONALD
Ordnance Survey Plan
Published 1965
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SD72NE	1965	1:10,560
SD72SE	1965	1:10,560

Historical Map - Slice A



Order Details

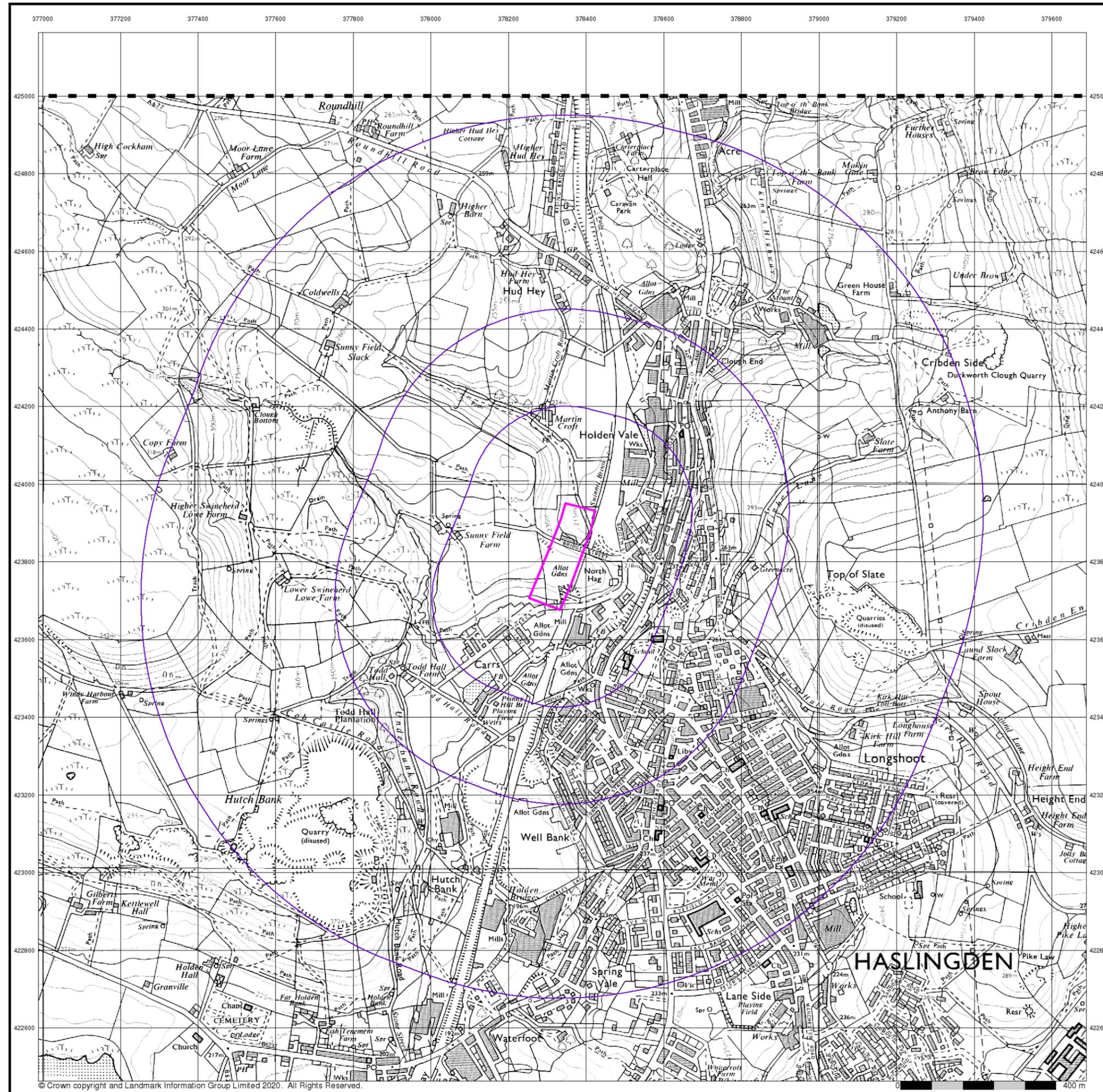
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 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

Site at, Rossendale Valley, Lancashire

Landmark
 INFORMATION GROUP

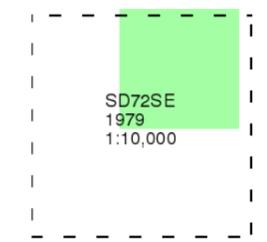
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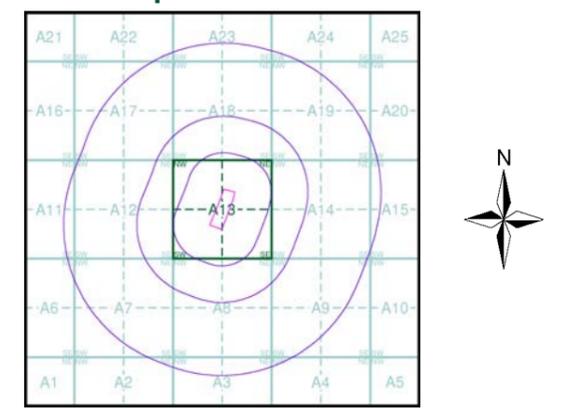
M M
MOTT MACDONALD
Ordnance Survey Plan
Published 1979
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



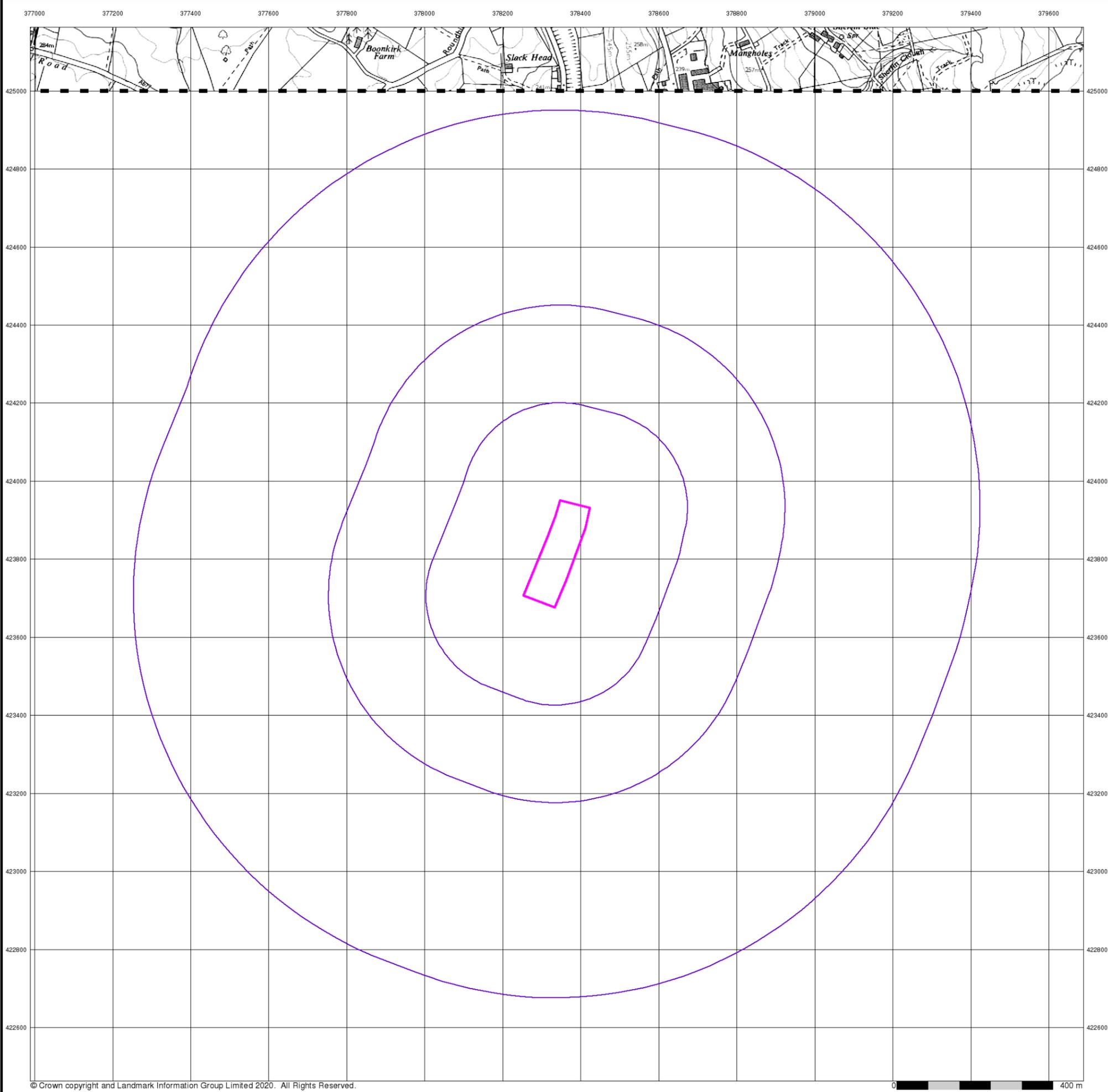
Order Details

Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details
 Site at, Rossendale Valley, Lancashire

Landmark
 INFORMATION GROUP

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M M
MOTT MACDONALD
Ordnance Survey Plan
Published 1981
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SD72NE
1981
1:10,000



Historical Map - Slice A

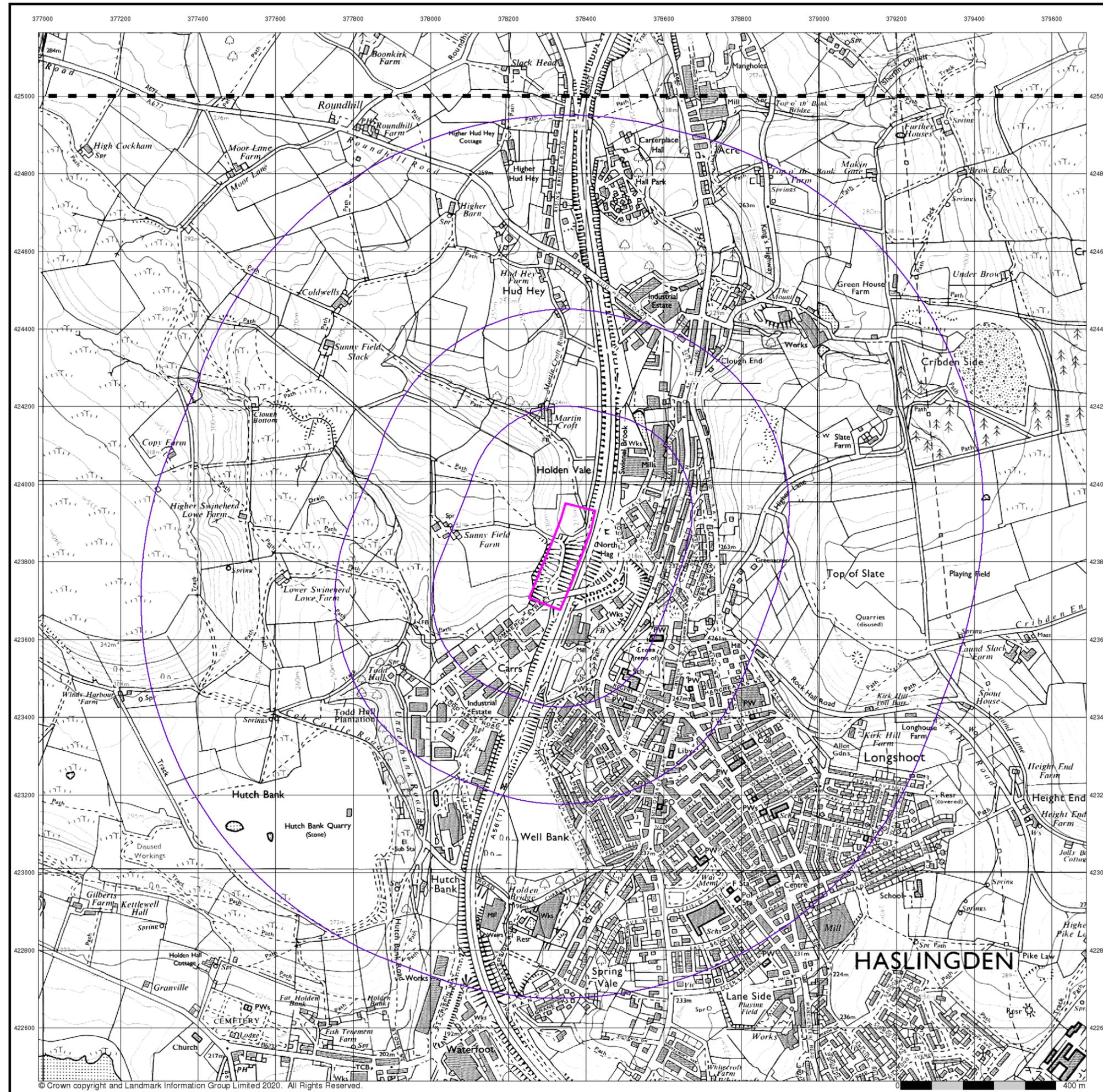
Order Details

Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details
 Site at, Rossendale Valley, Lancashire

Landmark
 INFORMATION GROUP

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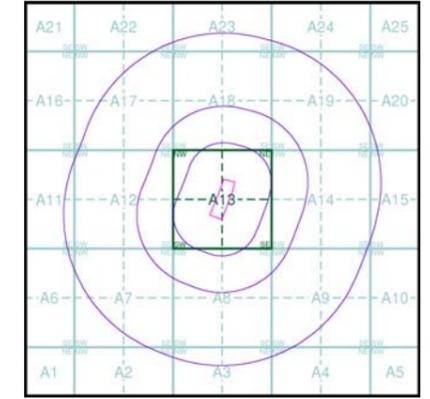
M M
MOTT MACDONALD
Ordnance Survey Plan
Published 1990 - 1991
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SD72NE	1991	1:10,000
SD72SE	1990	1:10,000

Historical Map - Slice A

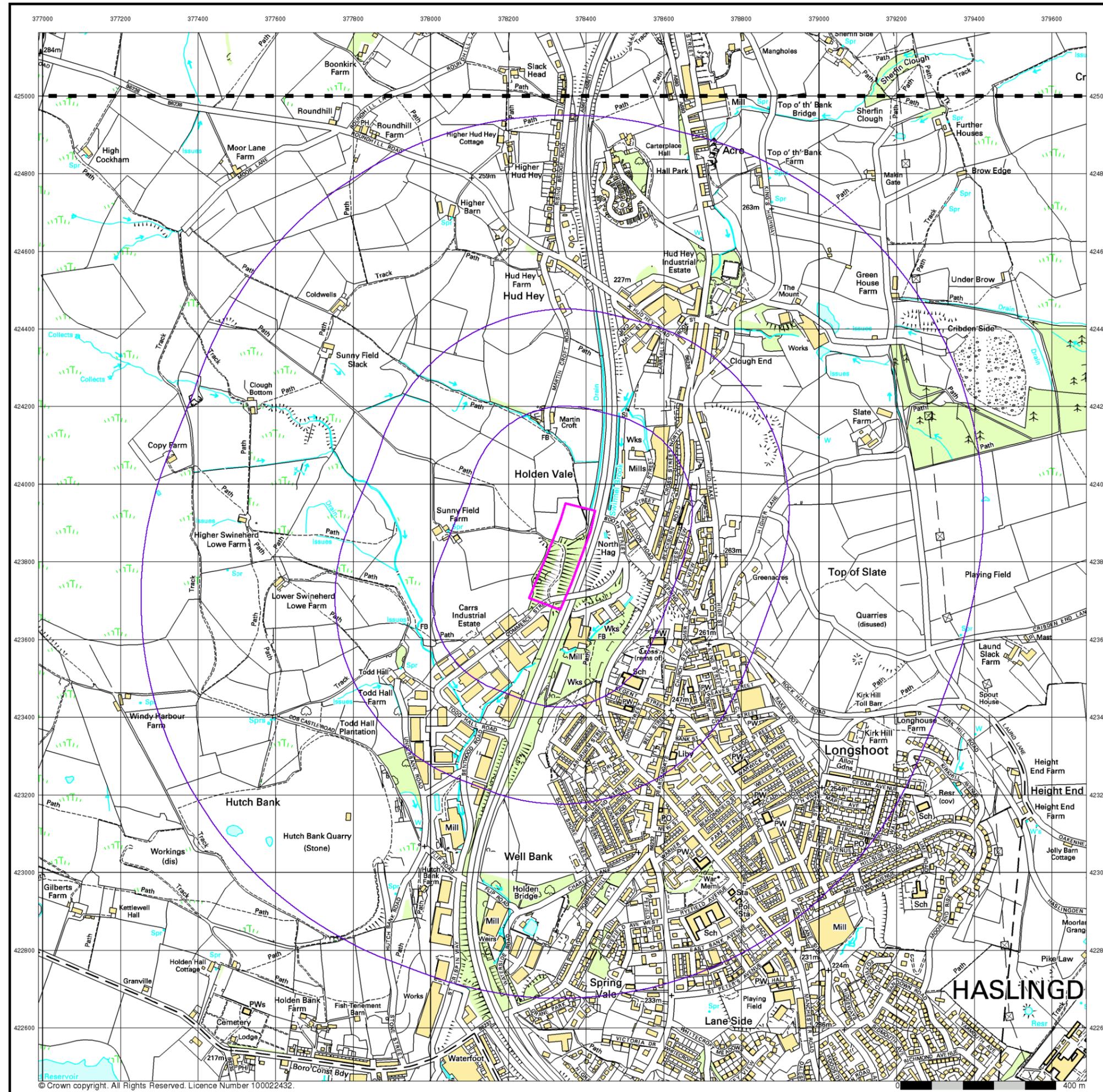


Order Details

Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

Site at, Rossendale Valley, Lancashire



M M

MOTT MACDONALD

10k Raster Mapping

Published 2001

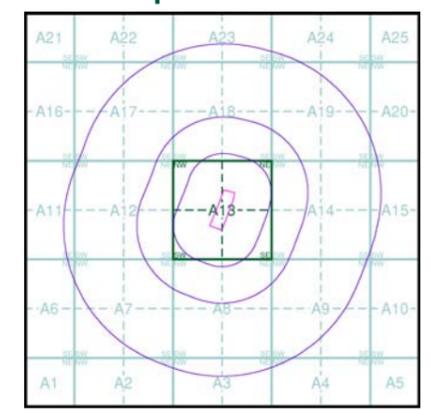
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

- SD72NE | 2001 | 1:10,000
- SD72SE | 2001 | 1:10,000

Historical Map - Slice A



Order Details

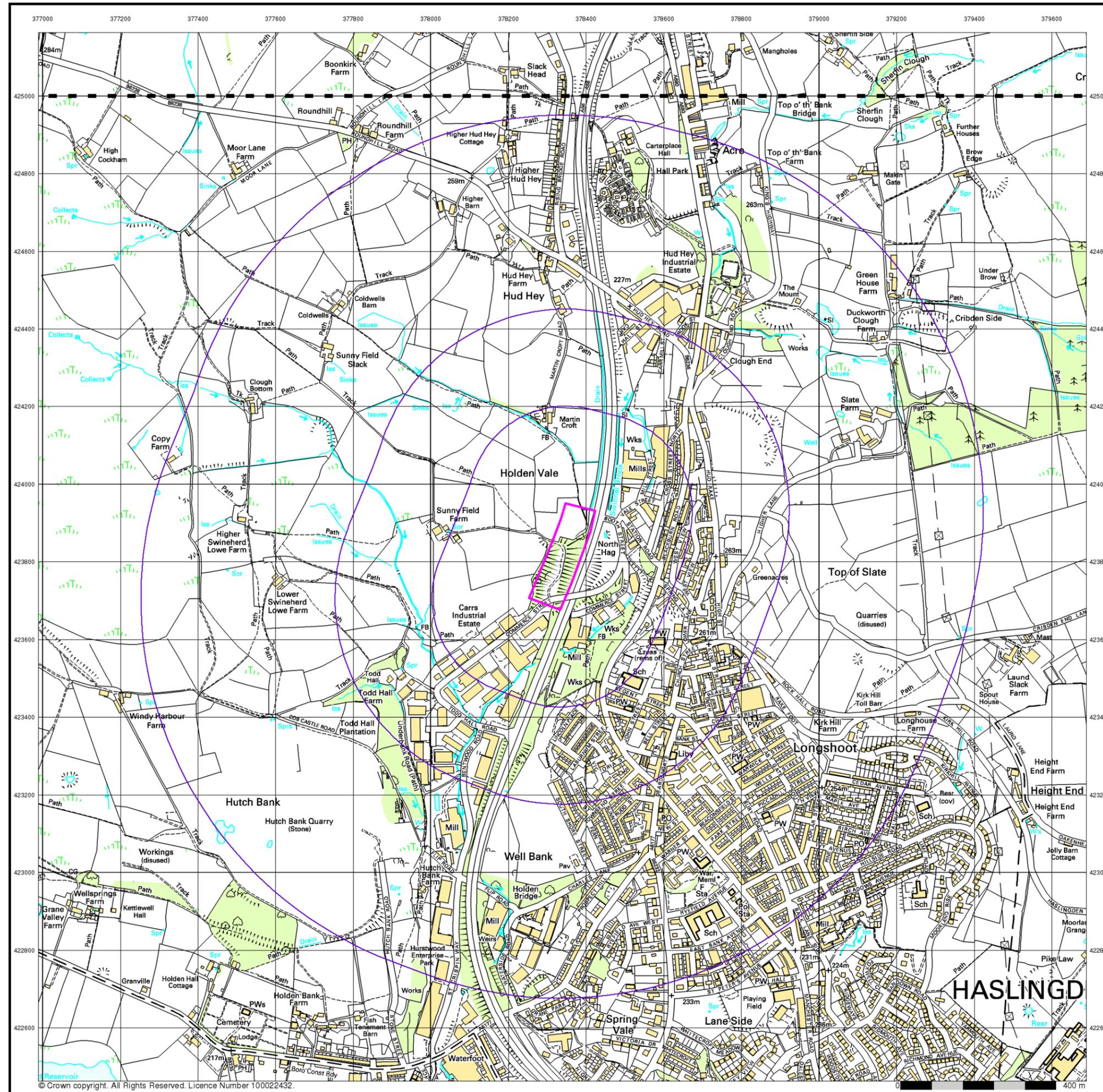
Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

Site at, Rossendale Valley, Lancashire

Landmark
 INFORMATION GROUP

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M M

MOTT MACDONALD

10k Raster Mapping

Published 2006

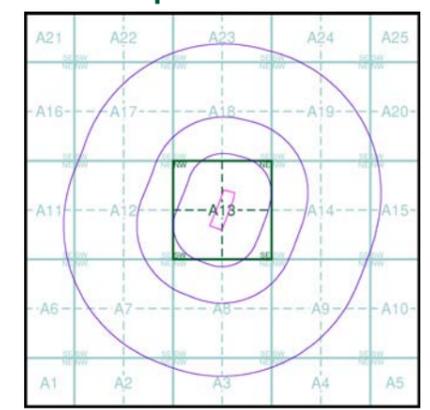
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SD72NE	2006	1:10,000
SD72SE	2006	1:10,000

Historical Map - Slice A



Order Details

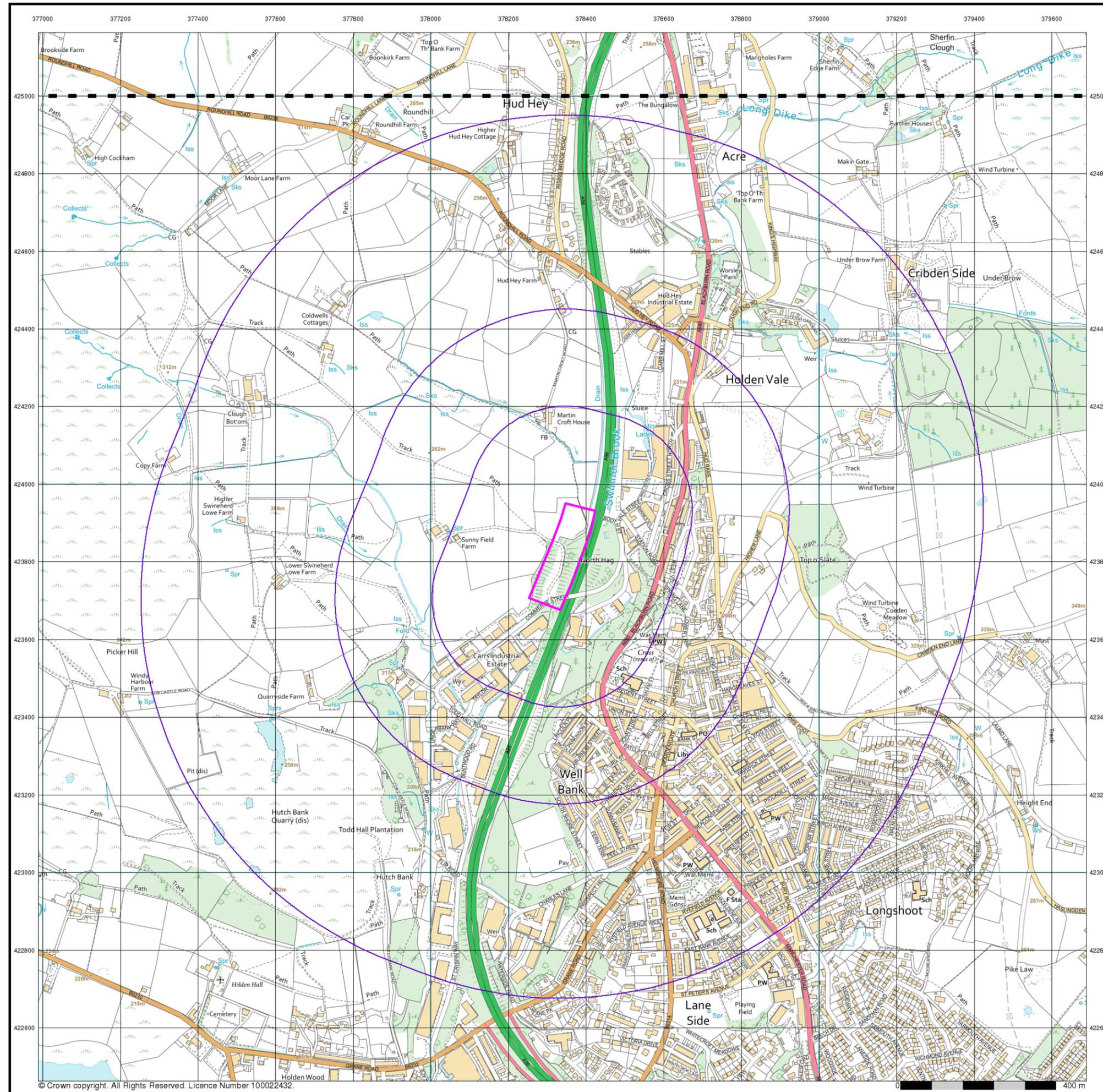
Order Number: 241411014_1_1
 Customer Ref: 391034AA06
 National Grid Reference: 378340, 423810
 Slice: A
 Site Area (Ha): 2.26
 Search Buffer (m): 1000

Site Details

Site at, Rossendale Valley, Lancashire

Landmark
 INFORMATION GROUP

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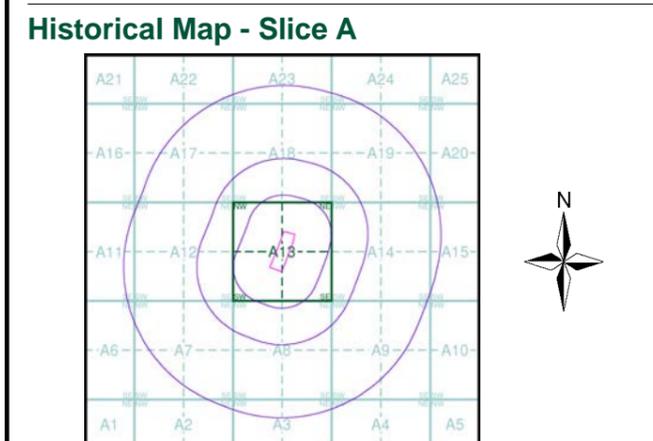


M M
MOTT MACDONALD
VectorMap Local
Published 2020
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SD72NE	2020	Variable
SD72SE	2020	Variable



Order Details

Order Number:	241411014_1_1
Customer Ref:	391034AA06
National Grid Reference:	378340, 423810
Slice:	A
Site Area (Ha):	2.26
Search Buffer (m):	1000

Site Details
 Site at, Rossendale Valley, Lancashire

Landmark
 INFORMATION GROUP

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 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

B. Historical Boreholes

SD72SE/130
7832 2375

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON
MAIN ROUTE CHAINAGE 2650m OFFSET 47m WEST
LOCATION SIDE ROAD CHAINAGE 52m OFFSET 6m EAST

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
		1	2					
0	TOPSOIL							Started 20.9.73
0.2	Soft mottled mid grey/mid brown sandy silty CLAY with gravel size stones.	U4		28.9				
1		KJ		17.5		CL		
1.5		U4		13.4	Grading	GW		
2	Dense dark grey-brown silty sandy GRAVEL with cobbles and boulders.	KJ		31.6				
3	Occasional lenses of SILT.	KJ		10.6				
4		U4		11.6	Grading	GP		
4		KJ		15.8				
4.0	Firm friable mottled orange/grey/mid brown silty very sandy CLAY with plenty of gravel size stones.	U4		13.5	29/17/12	CL		
5		KJ		14.1				
6		U4		9.1	Grading	SW		
6.4		KJ		23.5				
7	Loose to medium dense mid brown silty to very silty fine SAND.	U4		8.3	Grading	SU		
8		KJ		-				
9		SP		-			N = 15	20.9.73 BH. 'Dry' Casing 9.0m 21.9.73 BH. 'Dry'
10								

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Stress (kN/m2)	Cohesion (kN/m2)	Ø	Remarks
G.L. - 0.45	-	-	28.9	-	-	-	Topsoil and stony clay
1.50 - 1.95	-	-	13.4	-	-	-	Sand and gravel
2.90 - 3.35	-	-	11.6	-	-	-	Sand and gravel
4.20 - 4.65	2295	2015	13.9	130	65	-	100 U.C.T.
5.80 - 6.25	-	-	9.1	-	-	-	Sand
7.50 - 7.95	-	-	8.3	-	-	-	Sand and gravel

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO3 gm/litre	pH	Remarks or other tests

GENERAL REMARKS

BOREHOLE DATA SHEET No. 2 OF 4 SD72SE/130

B.H. No. 67

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

DEPTH 32.0

LOCATION MAIN ROUTE CHAINAGE 2650m OFFSET 47m WEST
SIDE ROAD CHAINAGE 52m OFFSET 6m EAST

GROUND LEVEL 239.0

Depth	Description of Stratum	Sample Key	M.C.	LL/PI/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
10	Very loose to medium dense dark grey-brown varved clayey SILT with partings of fine SAND.	SP	-			N = 5	WE (Light) 10.0m
11		B	10.6	Grading	SF		
12		SP	12.5			N = 13	
13		KJ	29.1				
14		SP	36.3		ML/CH	N = 3	
15		B	23.7	Grading	SF		
16		SP	30.0	Grading	ML/CH	N = 13	
17		B	27.6				
18		KJ	9.1				
19		U4	6.7	Grading	GW		
20	Soft dark grey-brown varved clayey SILT.	KJ	7.0				
21		U4	-				
22		B	30.8		ML/CH		
23	See Sheet No. 3	SP	5.5		SU+GP	N = 50 for 250mm	
24		B	7.0	Grading	GW		21.9.73 BH. 'Dry' Casing 20.0m 22.9.73 BH. 'Dry'

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks
15.40 - 15.85	-	-	6.7	-	-	-	Sand and gravel
17.80 - 18.50	-	-	30.8	-	29	26°	Quick S.S.

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ (gm/litre)	pH	Remarks or other tests

GENERAL REMARKS

LANCASHIRE COUNTY COUNCIL

JOB No. 367

BOREHOLE DATA SHEET No. 1 OF 3

SD72 SE/134

B.H. No. 72

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

DEPTH 26.0

LOCATION MAIN ROUTE CHAINAGE 2710m OFFSET 44m WEST

78342381

LOCATION SIDE ROAD CHAINAGE 109m OFFSET 9m EAST

GROUND LEVEL 238.9

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
		1	2/3					
0	TOPSOIL							Started 9.11.73
0.2	Loose mid grey-brown sandy LOAM with gravel size stones.			25.5		CI		
0.7				16.5				
1	Dense to very dense mid grey-brown silty sandy GRAVEL.				Grading	GW		
2	Occasionally slightly clayey.			16.2				9.11.73 BH. 'Dry'
				13.8				Casing 2.0m 12.11.73 BH. 'Dry'
3	A lens of soft, mid brown sandy clayey silt at 5.2m.				Grading	GW		
				14.0				
4								
				9.5				
5								
				14.1				
6								
7								
8								
9				13.3				12.11.73 BH. 'Dry'
				16.4	Grading	ML	N = 50	Casing 9.0m 13.11.73 BH. 'Dry'
9.2	See Sheet No. 2							

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	Ø	Remarks
G.L. - 0.45	-	-	25.5	-	-	-	Peaty topsoil
1.50 - 1.95	-	-	16.2	-	-	-	Sand and gravel
4.50 - 4.95	-	-	9.5	-	-	-	Sand and gravel

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Chiselling boulder from 5.8 to 9.0m

SD72SE/134

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

LOCATION MAIN ROUTE CHAINAGE 2710m OFFSET 44m WEST

SIDE ROAD CHAINAGE 102m OFFSET 2m EAST

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Details	
		1	2/3						Key
10	Medium dense dark brown sandy SILT. Becoming Saturated towards the base.							WE. 10.0m (Trace)	
11				SP	-		N = 17		
12	Soft dark grey-brown varved clayey SILT/ silty CLAY.								
12.0				KJ	27.8				
				SP B	33.1		ML/CH	N = 6	
13				SP B	28.9			N = 5	
14	Dense to very dense dark grey-brown sandy GRAVEL. Occasionally silty with a slightly clayey binder. Occasional layers of silty fine to medium SAND.								
16.0				SP	5.9			N = 44	
				B	9.3	Grading	GP		
17				SP B	10.5			N = 50	
18									
19								13.11.73 BH. 'Dry' Casing 19.0m 14.11.73 BH. 'Dry'	
20									

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Stres: (kN/m2)	Cohesion (kN/m2)	φ	Remarks
12.20 - 12.65	-	-	28.1	-	26	24°	Quick S.B.

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.3.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

LANCASHIRE COUNTY COUNCIL

JOB No. 37

BOREHOLE DATA SHEET No. 3 OF 3

B.H. No. 72

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

SD72SE/134

DEPTH 26.0 m

LOCATION MAIN ROUTE CHAINAGE 2710m OFFSET 44m WEST

SIDE ROAD CHAINAGE 109m OFFSET 9m EAST

GROUND LEVEL 238.9 m

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Details
		1	2/3					
20	See Sheet No. 2							
21			KJ	12.6				
			U4	7.8	Grading	GW		
22			KJ	9.7				
			U4	-				
23								14.11.73 BH. 'Dry' Casing 22.5m
								15.11.73 BH. 'Dry'
24				SP	4.9			N = 50
25								
26		Very hard broken light grey medium to coarse grained SANDSTONE. Boulder?		SP	-			N = 50 for 115mm 15.11.73 Casing 26.0

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.3.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

SD72SE/135

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

DEPTH 20.6

LOCATION CHAINAGE 2747m OFFSET 48m WEST

7835. 2385

GROUND LEVEL 227.1

0	Description of Stratum	Depth	Sample		M.C.	LL/PL/Pi Core Rec'y	Class'n	N Value	Water & Casing Detail
			1	2/3 Key					
	FILL								Started 26.4.74
	Pieces of broken sandstone.			B	-				
1	Loose mottled orange-brown/mid grey slightly clayey silty fine SAND.	0.7		B	-	Grading	GF		
	Medium dense grey-brown silty sandy GRAVEL.	1.5		W					WG. 1.5m (Slight) 26.4.74 SWL. 1.5m Not cased.
2	Loose layered mid brown/dark grey sandy SILT with fine partings of soft CLAY.	2.5		SP B KJ	21.4	Grading	GW	N = 20	27.4.74 SWL 1.2m 200mm Ø Casing.
3	Loose dark grey-brown SILT with fine partings of soft CLAY.	3.9		SP B	30.1	Grading	ML	N = 8	S.O. 3.0m
4	Very dense layered mid brown/dark grey-brown/mid grey slightly silty fine to medium SAND.	6.0		B	-	Grading	ML		
5	with fine partings of soft CLAY.			U4 KJ	31.6 31.4	Grading	ML		27.4.74 SWL. 'Dry' Casing 5.0m 29.4.74 SWL. 4.9m
6	- Saturated			KJ	-				
7	Very dense layered mid brown/dark grey-brown/mid grey slightly silty fine to medium SAND.			KJ	34.2				
8	with fine to medium gravel size stones. Some lenses of very silty gravelly SAND.			U4 KJ KJ	30.7 28.6		SU		
9				SP B	-	Grading	SP	N = 50 for 200mm	
				SP B	12.9			N = 50 for 225mm	29.4.74 BR. 'Dry' Casing 8.1m 30.4.74 BR. 'Dry'
10				SP B KJ	- 11.6	Grading	GF	N = 50 for 210mm	

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks
4.5 - 4.9	-	-	29.5	-	7	33°	Quick S.B.
6.1 - 6.5	-	-	30.7	-	13	22°	Quick S.B.

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests
1.5	-	-	-	-	-	-	Trace	5.3	Water Sample

GENERAL REMARKS

Formerly borehole No. HA 25/1

LANCASHIRE COUNTY COUNCIL

BOREHOLE DATA SHEET No. 2 OF 4

SD72SE/35

JOB No. 367

B.H. No. 73A

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

DEPTH 30.6

LOCATION CHAINAGE 2747m OFFSET 48m WEST

GROUND LEVEL 227.1

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N. Value	Water & Casing Detail
		1	23					
10	See Sheet No. 1							
11.1	Loose to medium dense dark grey-brown silty gravelly SAND with a soft clayey matrix.			-	Grading	GW	N = 50 for 240mm	30.4.74 BH. 'Dry' Casing 11.4m 1.5.74 BH. 'Dry'
12				21.0	Grading	SP	N = 14	Slight WE. 11.4m not sealed
13.3	Loose mid brown fine to medium SAND -Saturated.			-	Grading	SU	N = 5	
13.9	Loose dark grey-brown slightly clayey sandy SILT.			19.0		ML		
14.7								
15	Medium dense dark grey-brown slightly clayey gravelly very silty fine to medium SAND with thin bands of soft CLAY.			-	Grading	SF	N = 20	
17.1	-Saturated Medium dense dark grey-brown silty sandy GRAVEL.			-			N = 13	1.5.74 SWL 17.1m Casing 17.1m 2.5.74 SWL 10.6m Not sealed
18				-	Grading	GW	N = 12	
19								
20	-Saturated			-			N = 10	

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Stress (kN/m2)	Cohesion (kN/m2)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests
14.2	-	-	-	-	-	-	N11	6.6	Water sample

GENERAL REMARKS

Formerly Borehole No. HA 25/1

SD72SE/135

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
		1	2/3					
20	See Sheet No. 2							
21	Loose becoming medium dense dark grey-brown layered silty gravelly SAND and silty sandy GRAVEL.	B		-				
22		SP B		16.0	Grading	SU	N = 5	
23	Occasional lenses of gravelly silty sandy CLAY.	SP B		12.0			N = 25	2.5.74 SWL. 16.5m Casing 22.3m 3.5.74 SWL. 11.8m
24		SP B		-			N = 23	
25								
26		SP B		14.3	Grading	GW	N = 50 for 150mm	3.5.74 SWL. 15.6m Casing 25.5m 6.5.74 SWL. 12.1m
27								Not sealed, stronger W.E. at 25.7m
28	Medium dense dark grey-brown silty fine to medium SAND.	SP		18.5		SU/SP	N = 27	
29		SP		17.2			N = 43	

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ (gns/litre)	pH	Remarks or other tests

GENERAL REMARKS

SD72SE/129

SCHEME A.56 DIMFSTON - HASLINGDEN TO AGRINGTON

LOCATION COMMERCE STREET OVERBRIDGE, WEST BANK SEAT
CHAIRAGE 2599m OVERT 30m WEST

7831 2369

Depth	Description of Stratum	Sample Key	M.C.	L1/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Details
0	TOPSOIL						
0.1	Loose mottled orange/grey-brown clayey sandy SILT.	U4	29.8				Started 4.12.73
1		KJ	21.4		ML		
1.7		U4	26.6				
2	Soft dark grey-brown silty very sandy CLAY with plenty of gravel size stones.	KJ	17.1				
3		SP B	15.5			N = 13	
4		SP	(11.7)			N = 15	
5		B	20.6	30/18/12	CL		
5.3		KJ	11.0				
6	Medium dense mid brown silty fine to medium SAND.	SP B	10.4	Grading	SU	N = 21	
7	Small pockets of sandy SILT.	SP B	8.3			N = 23	4.12.73 BH 'Dry' Casing 6.5m 5.12.73 BH 'Dry'
9.5	See Sheet No. 2						

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Stress (kN/m2)	Cohesion (kN/m2)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO3 gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Formerly borehole No. HA 26/4

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

DEPTH 19.0

LOCATION COMMERCE STREET OVERBRIDGE, WEST BANK SEAT
CHAINAGE 2599m OFFSET 39m WEST

GROUND LEVEL 225.4

Depth	Description of Stratum	Sample			M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
		1	2	3					
10	Medium dense becoming loose dark grey-brown clayey silty			SP B	14.6	Grading	SC	N = 16	
11	fine to medium SAND.			KJ	17.5				
	Occasional gravel and cobbles.			SP B	18.3	Grading	SU	N = 4	
12									
13	Very loose to loose mid grey-brown slightly clayey silty			SP B	21.5			N = 3	
14	fine to medium SAND.								
15				SP B	25.9	Grading	SU	N = 5	
16	Firm friable dark grey-brown silty very sandy CLAY			KJ	15.6				
17	with abundant gravel.			SP B	11.7	27/15/12	CL	N = 50 for 200mm	5.12.73 SWL 11.2m Casing 16.2m 6.12.73 SWL 11.0m
18	Soft very broken and very weathered light brown MUDSTONE. Presumed bedrock.			SP	-			N = 50 for 60mm	
19				SP	-			N = 50 for 45mm	6.12.73 Casing 18.5m SWL 13.0m OWC.
20									

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Stress (kN/m2)	Cohesion (kN/m2)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO3 gm/litre	pH	Remarks or other tests
11.0	-	-	-	-	-	-	N11	7.0	Water sample

GENERAL REMARKS

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

SDT2SE/128

DEPTH 4.1

LOCATION MAIN ROUTE CHAINAGE 256m OFFSET 75m WEST

7826 2369

GROUND LEVEL 217.3

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Data
		1	2					
0	TOPSOIL							
0.1	FILL Very loose dark grey-brown silty sand, with pieces of broken brick, pottery.			19.5			N = 1	Started 25.6.75 Uncased hole.
0.8	Soft mottled mid grey/orange-brown silty sandy CLAY becoming very sandy.			26.6	32/18/14	CL		
				26.9				
2.7	Medium dense dark grey-brown clayey silty SAND with fine to medium gravel size stones.			16.3				25.6.75 SWL 2.7m
				19.3		SC		26.6.75 SWL 2.7m
4.1				-			N = 14	WL 3.4m (Slight)
								26.6.75 SWL 4.1m

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks
1.30 - 1.75	1970	1560	26.6	56	20	-	100 U.C.T.
2.30 - 2.70	2170	1860	16.3	41	20	-	100 U.C.T.

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ (gm/litre)	pH	Remarks or other tests

GENERAL REMARKS

SD72SE/119

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

COMMERCE STREET OVERBRIDGE, EAST VERGE PIER, SOUTH SIDE

LOCATION CHAINAGE 2617m OFFSET 10m EAST

7836 2370 GROUND LEVEL 213.9

Depth	Description of Stratum	Sample			M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Data
		1	2	3					
0	Open Hole to 9.5m							Started 29.8.75 110mm ϕ casing	
0.6									
1	Weathered fine grained SANDSTONE.								
2	With clay filled joints.							29.8.75 Casing : 0.6m 1.9.75	
3									
4									
5									
6									
7								1.9.75 Casing : 0.6m 2.9.75	
8									
9								2.9.75 Casing : 0.6m 17.9.75 17.9.75	
9.5	See Sheet No. 2							18.9.75	

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	ϕ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

SD72SE/119

DEPTH 14.5

LOCATION COMMERCE STREET OVERBRIDGE, EAST VERGE PIER, SOUTH SIDE.
CHAINAGE 2617m OFFSET 10m EAST

GROUND LEVEL 213.2

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
		1	2					
10	Soft to hard very broken to broken weathered							80% Return of Flushing Water. (Reduced with depth).
11	dark grey-grey (with ferruginous staining) faintly bedded sandy MUDSTONE.				9.5.-12.5m Rec'y 50%			
12	Bedding sensibly horizontal. Occasional vertical fractures. Occasional bands of							40% Return of Flushing Water. Reducing to
13	light brown fine grained SANDSTONE.				12.5 - 14.5m Rec'y 75%			zero at 13.0m .
14								
15								18.9.75

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Stress (kN/m2)	Cohesion (kN/m2)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Formerly Borehole No. 11A 26/3R

SD72SE/145

7840 2383

Depth	Description of Stratum	Sample		M.C	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
		1	23 Key					
0	FILL Black ash, clinker, with gravel size stones.		B	(12.6)				Started 20.9.73
1	Medium dense dark grey-brown sandy GRAVEL with a slightly clayey matrix.	1.2	SP B	9.6 11.5			N = 23	WE. 1.5m (Slight)
2								
3	Loose mid grey-brown layered sandy SILT and very silty fine SAND with thin partings of CLAY.	5.6	SP B	14.6 13.3	Grading	GC	N = 23	20.9.73 BH. 'Dry' Casing 3.0m 21.9.73 BH. 'Dry'
4								
5			SP	13.1			N = 29	WE. 4.5m (Slight)
6								
7			SP B	28.0	Grading	ML + SP + CL	N = 7	
8								
9	Very soft, broken, weathered, mid brown fine grained SANDSTONE.	9.2	SP B	29.0			N = 9	
10								

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

LANCASHIRE COUNTY COUNCIL

JOB No. 357

BOREHOLE DATA SHEET No. 1 OF 2

SD72SE/139

B.H. No. 69

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

DEPTH 18.8

LOCATION MAIN ROUTE CHAINAGE 2685m OFFSET 77m WEST
SIDE ROAD CHAINAGE 91m OFFSET 26m WEST

7840 2380

GROUND LEVEL 239.3

0	Description of Stratum	Depth	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Data
			1	2					
	TOPSOIL	0.25		U4	17.8				Started 18.9.73
				KJ	19.0				
1									
2	Dense to very dense mid brown slightly clayey, silty, well graded SAND with many fine to medium gravel size stones. Occasional cobbles.			U4	(8.4)	Grading	GW		
				KJ	12.4		SW		
3				SP	-				
4				B	10.3	Grading	GF	N = 50 for 75mm	
5									
6				SP	-			N = 42	
				B	(9.6)				
7				SP	11.4			N = 46	
				B	(9.6)				
8				SP	8.8			N = 21	
				B	8.1	Grading	SP		
9									
		9.3		KJ	26.0				
	See Sheet No. 2			SP B	27.6	Grading	SF	N = 18	

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks
G.L. - 0.45	-	-	17.8	-	-	-	Topsoil and friable clay
1.50 - 1.95	-	-	(8.4)	-	-	-	Sand and gravel

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests
9.7	-	-	-	-	-	-	Slight trace	7.0	Water sample

GENERAL REMARKS

LANCASHIRE COUNTY COUNCIL

JOB No. 77

BOREHOLE DATA SHEET No. 2 OF 2

B.H. No. 69

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

SD72SE/139

DEPTH 18.8

LOCATION MAIN ROUTE CHAINAGE 2685m OFFSET 77m WEST
SIDE ROAD CHAINAGE 91m OFFSET 26m WEST

GROUND LEVEL 239.3

Depth	Description of Stratum	Sample Key	M.C.	LL/PL/PI Core Rec'y	Class'n	N. Value	Water & Casing Detail
10	Medium dense mid brown very silty fine SAND.						18.9.73 BE. 'Dry' Casing 10.5m 19.9.73 SWL. 9.7m
11	Medium dense dark grey-brown varved clayey SILT and sandy SILT with CLAY partings.	SP	-			N = 4	
12		B	23.3	Grading	ML		
13		SP	30.0	Grading	ML	N = 15	
14		B	30.6				
15		SP	29.3				N = 13
16	Medium to very dense dark grey-brown slightly clayey silty to very silty SAND with gravel size stones.	B	31.4		ML/CH		
17		SP	13.1			N = 16	
18		B	-				
19	Hard broken, light brown SANDSTONE. Boulder?	KJ	16.1	Grading	SF		
18		SP	9.8			N = 50 for 120mm	
19		B	10.3				
20		SP	-			N = 50 for 75mm	19.9.73 Casing 18.0m SWL. 9.3m O.W.C.

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Stress (kN/m2)	Cohesion (kN/m2)	φ	Remarks
11.0 - 12.50	-	-	23.3	-	0	35°	Quick S.B.
14.30 - 15.80	-	-	29.3	-	41	23°	Quick S.B.

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO3 gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Chiselling 18.0 - 18.3m 1 hour.

SD72SE/120

SCHEME A56 DIVERSION - HASLINGDEN TO ACCRINGTON

DEPTH 6.6

LOCATION COMMERCE STREET OVERBRIDGE, EAST VERGE PIER, SOUTH SIDE.

7837 2371 GROUND LEVEL 214.0

CHAIN No. E 2620m OFFSET 9m EAST.

Depth	Description of Stratum	Sample			M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
		1	2	3					
0	FILL								
0.6	Limestone chippings. Cinders, black ash. Medium hard to hard								Started 21.11.75
1	fairly intact, slightly weathered								21.11.75 BH. 'Dry'
2	mid green-grey (stained orange-brown) fine grained SANDSTONE with organic inclusions. Bedding sensibly horizontal. Joints vertical and dipping 80°.								Casing 0.6m 22.11.75 SW. 0.5m
2.1	Soft, broken weathered, mid green-grey (stained orange-brown) fine grained SANDSTONE. Some soft CLAY bands.								
2.9									
3	Very soft to hard								
4	very broken to broken weathered (partly very weathered) mid green-grey (stained orange-brown) sandy MUDSTONE.								
5	Some signs of bedding (sensibly horizontal). Joints vertical and dipping 40°, 45° and 80°.								
6	Some bands of soft CLAY. Occasional bands of hard green-grey thinly cross bedded fine grained SANDSTONE.								22.11.75 Casing 5.0m
6.6									

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Formerly Borehole No. HA 26/3AR.

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

SDT2SE/122

LOCATION CHAINAS 2676m OFFSET 9m EAST

7839. 2375

Depth	Description of Stratum	Sample			M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Details
		1	2	3					
0	FILL: Black clinker ash and broken stone.								Started 9.10.75
	Soft light brown, fine grained, clayey SANDSTONE.								
1	Hard light brown, fine grained flaggy SANDSTONE.								9.10.75
2									

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ (gm/litre)	pH	Remarks or other tests

GENERAL REMARKS

Machine excavated trial pit.

LANCASHIRE COUNTY COUNCIL

BOREHOLE DATA SHEET No. 2 OF 2

SD72SE/131

JOB No. 567

B.H. No. 660

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

DEPTH 18.8

LOCATION MAIN ROUTE CHAINAGE 2647m OFFSET 97m WEST
SIDE ROAD CHAINAGE 35m OFFSET 39m WEST

GROUND LEVEL 238.8

10	Description of Stratum	Depth	Sample		M.C.	LL/PL/Pi Core Rec'y	Class'n	N Value	Water & Casing Detai
			1	23					
10	Medium dense, layered, dark brown, very slightly clayey sandy SILT, and	11.6	SP	B	32.5	Grading	SF/HL	N = 19	28.7.75 SWL. 10.2m Casing 9.9m 29.7.75 SWL. 8.9m
11	mid brown very silty fine SAND. -Saturated								
12	Loose to medium dense dark grey-brown clayey sandy SILT with thin partings of	15.2	SP	B	29.3	Grading 30/21/5	ML CL	N = 8	
13	soft silty CLAY and very silty fine SAND.								
14		15.7	SP	B	24.1 34.6		ML/CH + SF	N = 22	S.O. 14.0m
15	- Saturated								
16	Very dense, dark grey brown, layered, silty medium - coarse SAND/ clayey silty fine SAND/ silty fine to medium SAND, with fine to medium gravel size stones.	16.4	KJ		10.4		SU + SC		29.7.75 BH. 'Dry' Casing 14.4m 30.7.75 BH. 'Dry'
17	Stiff dark grey-brown silty very sandy, very stony, CLAY.								
18		18.8	SP	B	8.7 11.6			N = 50 for 240mm	
19									
19		18.8			13.2				30.7.75 BH. 'Dry' Casing 16.0m 31.7.75 BH. 'Dry' 31.7.75 BH. 'Dry'
20									4.8.75 BH. 'Dry'
19		18.8	SP	B	- 12.3	Grading	CL	N = 50 for 210mm	4.8.75 BH. 'Dry' Casing 16.0m
20									Casing withdrawn. 6.8.75 BH. Collapsed to 9.2m SWL. 9.1m

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks
18.5 - 18.80	2270	1970	15.3	-	105	25°	Quick S.B. on matrix

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

LANCASHIRE COUNTY COUNCIL

JOB No. 367

BOREHOLE DATA SHEET No. 1 OF 1

B.H. No. 5616/5BR

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

SD72SE/121

DEPTH 6.3

LOCATION COMMERCE STREET OVERBRIDGE, EAST VERGE PIER, NORTH SIDE

7838 2373

GROUND LEVEL 214.2

CHAINAGE 2645m OFFSET 9m EAST

Depth	Description of Stratum	Sample			M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Deta
		1	2	3					
0	FILL Limestone chippings, cinders, black ash.								
0.3	Medium hard to hard, broken, slightly weathered, mid green-grey (stained dark orange-brown) thinly cross-bedded fine grained SANDSTONE with organic inclusions. Bedding sensibly horizontal. Joints vertical.				0.3-1.8m				Standard 24.11.75
1					75% Recovery				
1.8	Soft to medium hard very broken to broken weathered (partly very weathered) mid green-grey (stained dark orange-brown) thinly cross bedded very fine grained SANDSTONE.				1.8-3.3m				
2					50% Recovery				
3	Bedding sensibly horizontal. Irregular fracture.				3.3-4.8m				
4					50% Recovery				
4.8	Soft very broken to broken very weathered to weathered, dark grey (stained dark orange-brown) sandy MUDSTONE. Some signs of bedding (sensibly horizontal). Irregular fracture.				4.8-6.3m				WE. 5.0m
5					55% Recovery				
6.3									24.11.75 SWL. 0.3m Casing 4.5m 25.11.75 SWL. 0.3m Casing withdrawn.
7									
8									
9									
10									

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Formerly Borehole No. MA 26/3HR.

SDT2SE/123

7841 2379

Description of Stratum	Depth	Sample			M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Data
		1	2	3					
0 FILL. Black clinker ash and broken stone.	0.2								Started 9.10.75
Hard, light brown, fine grained, closely jointed, flaggy SANDSTONE. 1 Joints are open and infilled with clayey GRAVEL.	1.4								9.10.75
2									

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Stress (kN/m2)	Cohesion (kN/m2)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.C.	Air Voids	C.B.R.	SO3 gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Machine excavated trial pit.

SD72SE/124

7841 2377

Depth	Description of Stratum	Sample 1/2/3 Key	M.C.	LL/PL/PI Cora Rec'y	Class'n	N Value	Water & Casing Detail
0	TOPSOIL	U4	21.4				Started 26.11.73
1	Medium dense mid grey-brown slightly clayey silty sandy GRAVEL	KJ	-				
2		SP B	14.7	Grading	GW	N = 10	
3	A few cobbles and pockets of sandy SILT.	SP B	8.1 11.4			N = 28	
4							
5							
6							
7							
8		SP B	11.2	Grading	GP	N = 24	26.11.73 BH. 'Dry' Casing 7.5m 27.11.73 BH. 'Dry'
9	Medium dense mid brown slightly silty	SP B	7.6		SU	N = 19	
10	fine to medium SAND						

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests
0.6	-	-	-	-	-	-	Slight trace	7.5	Water sample

GENERAL REMARKS

Chiselling boulder 6.2 - 7.5m 1 hour.

LANCASHIRE COUNTY COUNCIL

JOB No. 357

BOREHOLE DATA SHEET No. 2 OF 2

B.H. No. 70

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

SD72SE/124

DEPTH 19.5m

LOCATION CHAINAGE 2685m OFFSET 21m EAST

GROUND LEVEL 240.2m

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
		1	2/3					
10	See Sheet No. 1							
11	Medium dense mid brown slightly clayey sandy SILT		SP B	28.8	-	ML	N = 20	WE, 11.0m (Trace)
12			SP	27.1			N = 11	
13								
14	Medium dense dark grey-brown slightly clayey silty fine to medium SAND with gravel size stones and cobbles.		KJ SP B	7.3 2.5			N = 26	
15								
16			SP B	6.5 10.4	Grading	SP	N = 39	27.11.73 BH, 'Dry' Casing 15.5m 28.11.73 BH, 'Dry'
17								
18	Hard broken mottled orange/light brown medium to coarse grained SANDSTONE (Boulders?)		SP KJ SP	- - -		GU	N = 50 for 200mm	
19	Hard broken light brown fine grained SANDSTONE. Presumed bedrock.		KJ SP	- -			N = 50 for 60mm	28.11.73 BH, 'Dry' Casing 18.4m 29.11.73 SWL, 18.4m
20								29.11.73 Casing SWL 19.0m OWC.

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m3)	Dry Dens'y (kg/m3)	M.C. (%)	Comp. Stress (kN/m2)	Cohesion (kN/m2)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m3)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO3 gm/litre	pH	Remarks or other tests

GENERAL REMARKS

3 hours chiselling 18.4m - 19.5m

BOREHOLE DATA SHEET No. 1 OF 2

B.H. No. 5516/A

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

SD72SE/125

DEPTH 13.0

LOCATION COMMERCE STREET OVERBRIDGE, EAST BANK SEAT.

7841 2373

GROUND LEVEL 230.7

CHAINAGE 2657m OFFSET 41m EAST

0	Description of Stratum	Depth	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
			1	2					
	TOPSOIL	0.2							BH. Started 3.7.75
	Gravelly LOAM	0.7			23.6		CL		
1	Stiff mottled orange-brown/aid grey-brown	0.7		U4	21.0				
				KJ	18.2				
2	sandy silty CLAY, gravel size stones. Occasional cobbles.			U4	16.5	30/17/13	CL		
				KJ	19.2				
3				U4	13.0	25/13/12	CL		150mm Ø Casing
4				KJ	11.4				
5	Soft to hard very broken very weathered yellow-brown fine grained SANDSTONE .	4.6		SP	11.1			N = 50 For 75mm	3.7.75 BH. 'Dry'
6	Hard intact yellow-brown fine to medium grained SANDSTONE . Joints 60° to vertical,	5.4							4.7.75 BH. 'Dry'
7	oxidised signs of water in joints								Casing 5.4m
8	Hard broken irregularly fractured, weathered yellow-brown, fine to medium grained SANDSTONE . Joints vertical and 60° . Signs of water in joints	8.0							(water flush) from 5.4m
9									9.7.75
10									8.0 - 11.0m 30% Recovery

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks
0.55 - 0.75	-	-	23.6	-	-	-	Clayey silty fine sand with a few gravel size stones
0.75 - 1.00	-	-	21.0	-	-	-	Stiff silty sandy clay with gravel size stones
2.20 - 2.65	2180	1870	16.5	188	94	-	100 U.C.T.
3.60 - 4.05	2170	1910	13.0	230	115	-	38 U.C.T. (R)

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Formerly borehole No. HA 26/2

SD72SE/125

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON
LOCATION COMMERCE STREET OVERBRIDGE, EAST BANK SEAT
CHAINAGE 2657m OFFSET 41 EAST

DEPTH 13.0
GROUND LEVEL 230.7

Depth	Description of Stratum	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Detail
		1	2					
10	See Sheet No. 1							
11								
12					11.0 - 13.0m Rec'y 20%			11.7.75 14.7.75
13								14.7.75
14								

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.C.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Rotary Boring (water flush) from 5.4m

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCRINGTON

SD72SE/136

DEPTH 7.2 m

LOCATION CHAINAGE 2761m OFFSET 7m EAST

7843 2384

GROUND LEVEL 215.6 m

Depth	Description of Stratum	Sample		M.C.	LL/PI/PI Cora Rec'y	Class'n	N. Value	Water & Casing Details
		1	2/3					
0	FILL: Limestone chipings and Black ash Open hole to 5.0m. Hard intact	0.2						Started 22.9.75 Uncaased hole.
1	mid green-grey (with ferruginous staining) fine grained SANDSTONE.							
2	Bedding dipping 2° north. Becoming softer with clay filled joints.							22.9.75 23.9.75
3	Occasional bands of sandy mudstone.							
4								90% Return of Flushing later. Reducing to zero at 7.0m
5	Hard mid green-grey cross bedded fine grained SANDSTONE with dark organic partings	5.0						
6	Soft to hard very broken to broken dark grey (with ferruginous staining) thinly bedded sandy MUDSTONE	5.5			5.0 - 7.2m Rec'y 45%			
7	With thin bands of hard fine grained SANDSTONE.	7.2						23.9.75
8								
9								
10								

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests

GENERAL REMARKS

Rotary Borehole (Water flush).
Description of strata from 0.1 to 5.0m deduced from drill logs

LANCASHIRE COUNTY COUNCIL

JOB No. 367

BOREHOLE DATA SHEET No. 1 OF 1

B.H. No. 77

SCHEME A.56 DIVERSION - HASLINGDEN TO ACCREINGTON

SD72SE/140

DEPTH 2.1

LOCATION CHAINAGE 2867m OFFSET 18m WEST

7842 2394 GROUND LEVEL 214.6

Description of Stratum	Depth	Sample		M.C.	LL/PL/PI Core Rec'y	Class'n	N Value	Water & Casing Data
		1	2/3					
TOPSOIL (0.2m) on silty SUBSOIL	0.3			38.9				Started 2.10.73 Lined bore
Soft dark grey silty CLAY	0.3			62.7				
Mid brown fibrous PEAT becoming silty at 1.5m	0.7			225.2	87/45/42	MH/DH Pt		W.S. 1.6m
	0.7							
GRAVEL	2.0			31.2	46/29/17	GI/OI		S.W.L. on completion 1.4m
	2.1			-		GU		

STRENGTH TEST RESULTS

Depth of Sample	Bulk Dens'y (kg/m ³)	Dry Dens'y (kg/m ³)	M.C. (%)	Comp. Stress (kN/m ²)	Cohesion (kN/m ²)	φ	Remarks
0.32 - 0.39	1733	1250	38.9	38	19	-	38 U.C.T. (2)

COMPACTION AND OTHER TEST RESULTS

Depth of Sample	Compaction	Dry Dens'y (kg/m ³)	M.C. (%)	S.G.	Air Voids	C.B.R.	SO ₃ gm/litre	pH	Remarks or other tests
1.4	-	-	-	-	-	-	Nil	7.0	water sample

GENERAL REMARKS

Hand Auger Hole.

C. UXO Risk Map

UNEXPLODED BOMB RISK MAP

SITE LOCATION

Map Centre: 378315,423778



LEGEND

-  **High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
-  **Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
-  **Low:** Areas indicated as having 15 bombs per 1000acre or less.

-  **military**
-  **industry**
-  **UXO find**
-  **transport**
-  **dock**
-  **Luftwaffe targets**
-  **utilities**
-  **Bombing decoy**
-  **other**

How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

What do I do if my site is in a moderate or high risk area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites in a moderate or high UXB risk area.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirms that there is a low potential for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

tel: **+44 (0) 1993 886682**

email: **uxo@zetica.com**

web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: (<https://zeticauxo.com/downloads-and-resources/risk-maps/>)

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It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.