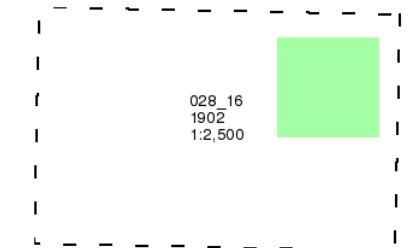


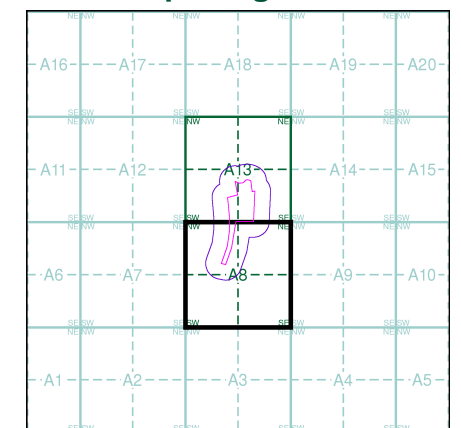
Monmouthshire
Published 1902
Source map scale - 1:2,500

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)



Historical Map - Segment A8



Order Details

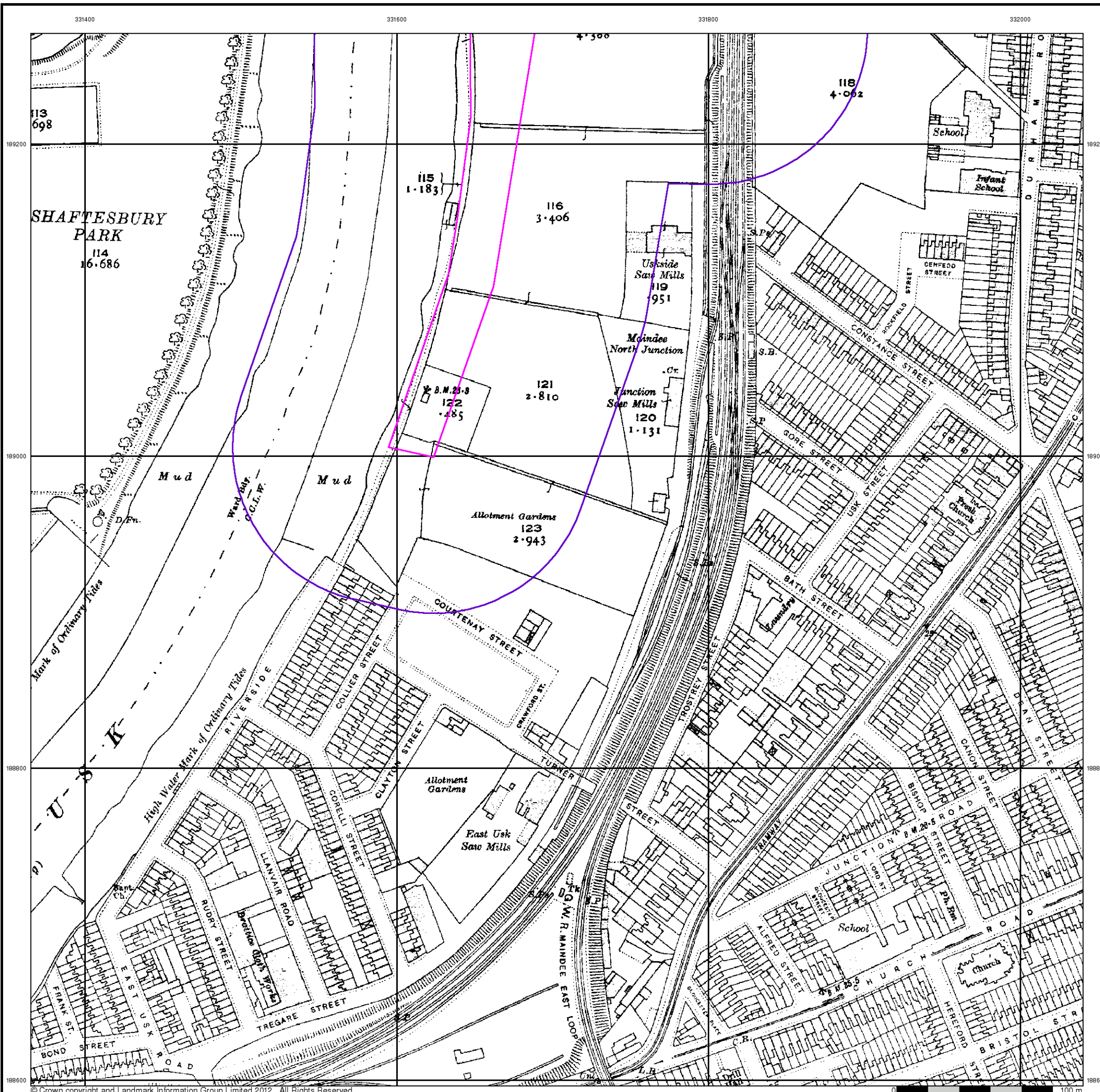
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

Herbert Road, NEWPORT, Gwent, NP19 7BH



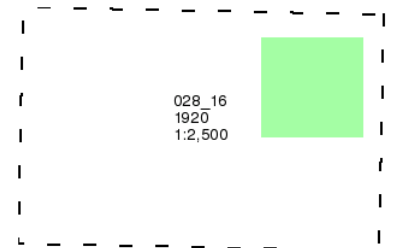
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



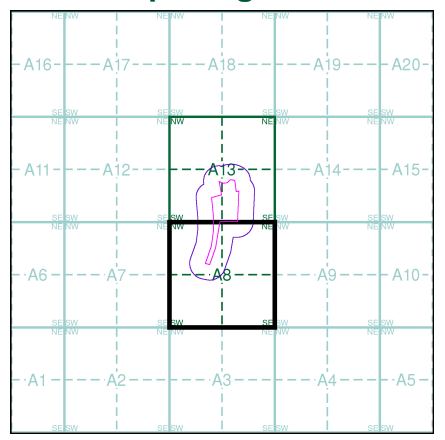
Monmouthshire
Published 1920
Source map scale - 1:2,500

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)



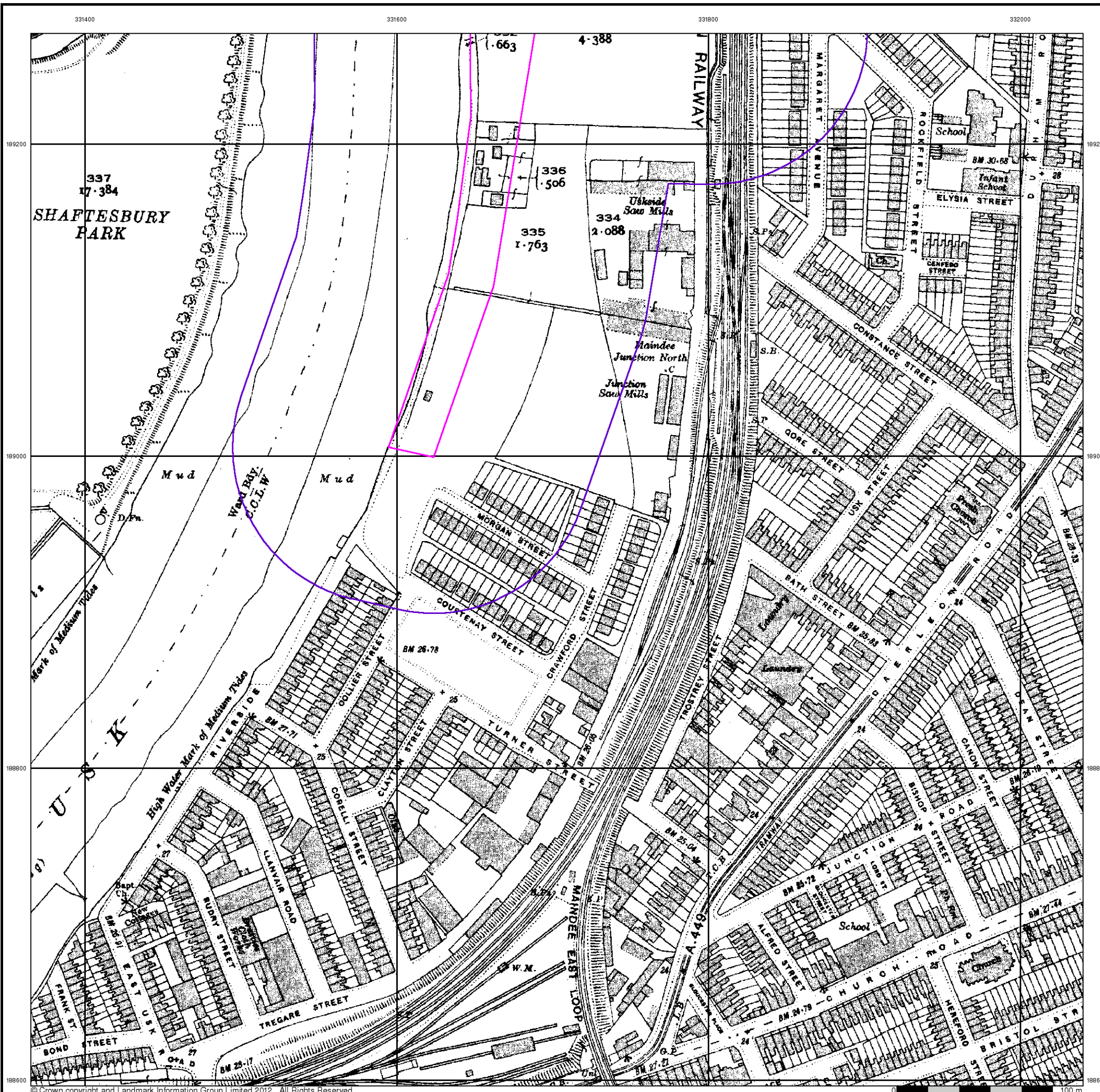
Historical Map - Segment A8



Order Details
 Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details
 ., Herbert Road, NEWPORT, Gwent, NP19 7BH

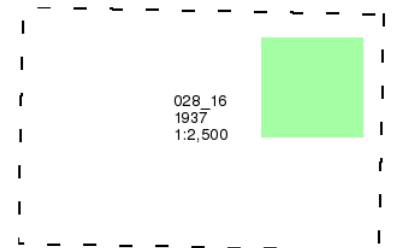
Landmark
 Information Group
 Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



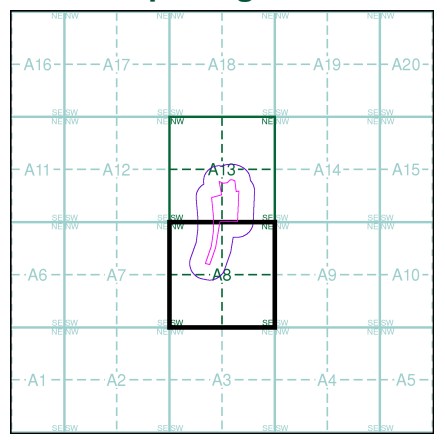
Monmouthshire
Published 1937
Source map scale - 1:2,500

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)



Historical Map - Segment A8



Order Details

Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

Herbert Road, NEWPORT, Gwent, NP19 7BH



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Ordnance Survey Plan

Published 1955 - 1957

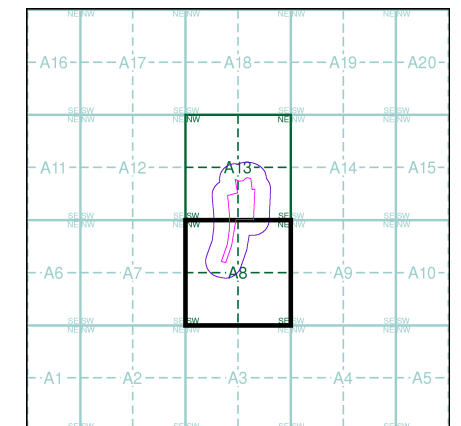
Source map scale - 1:1,250

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)

ST3189SW 1955 1:1,250	ST3189SE 1955 1:1,250	ST3289SW 1957 1:1,250
ST3188NW 1955 1:1,250	ST3188NE 1955 1:1,250	ST3288NW 1956 1:1,250

Historical Map - Segment A8



Order Details

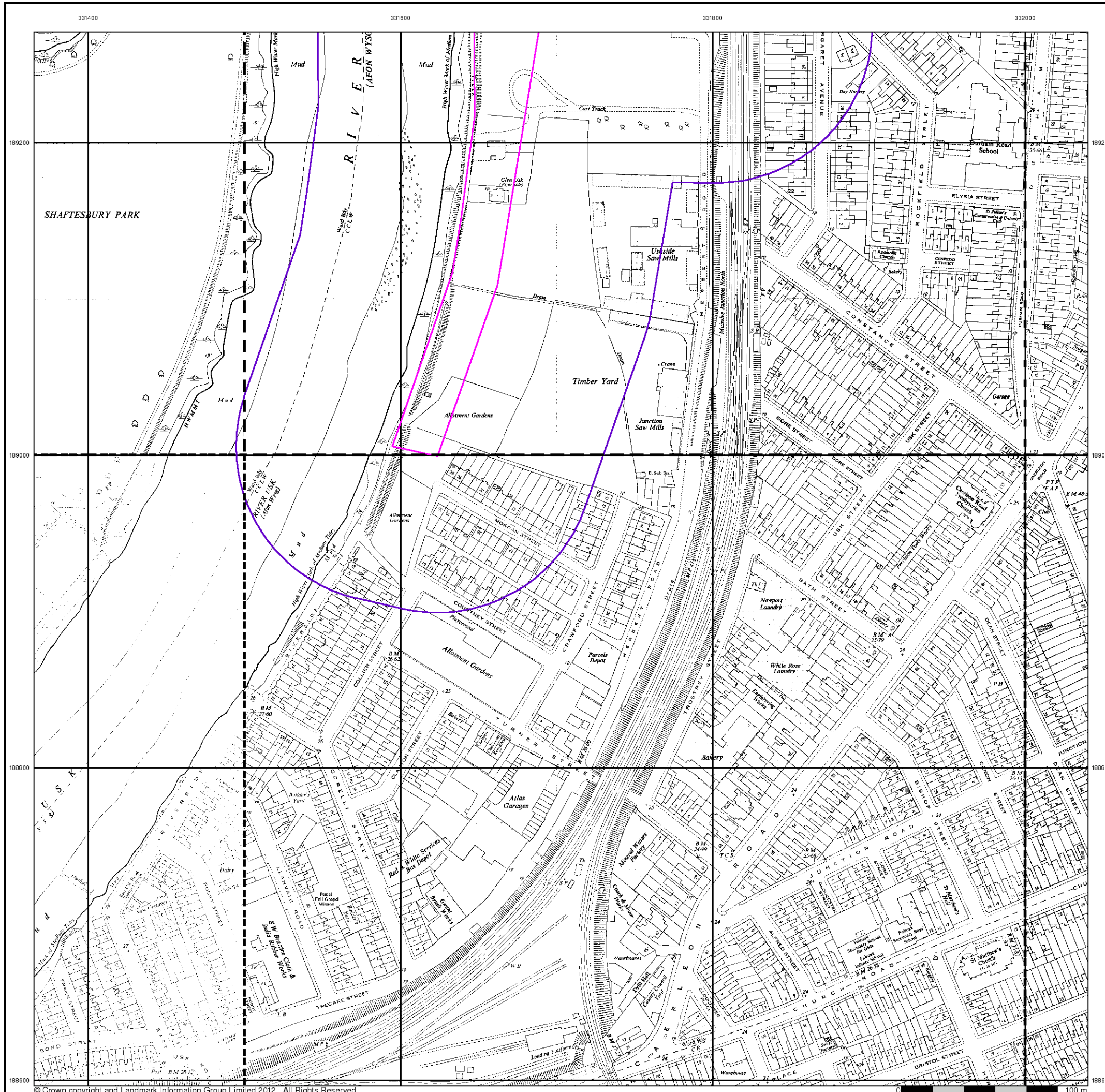
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

Herbert Road, NEWPORT, Gwent, NP19 7BH



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





Ordnance Survey Plan

Published 1955 - 1957

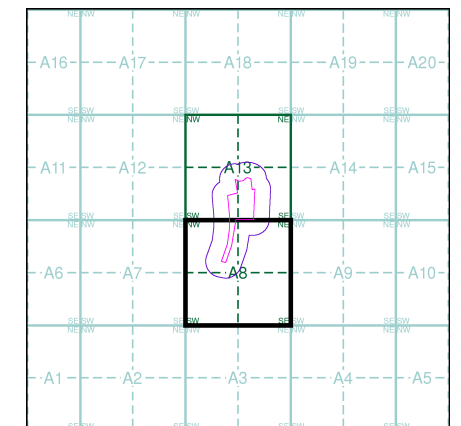
Source map scale - 1:2,500

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)

ST3189 1955 12,500	ST3289 1957 12,500
ST3188 1956 12,500	ST3288 1956 12,500

Historical Map - Segment A8



Order Details

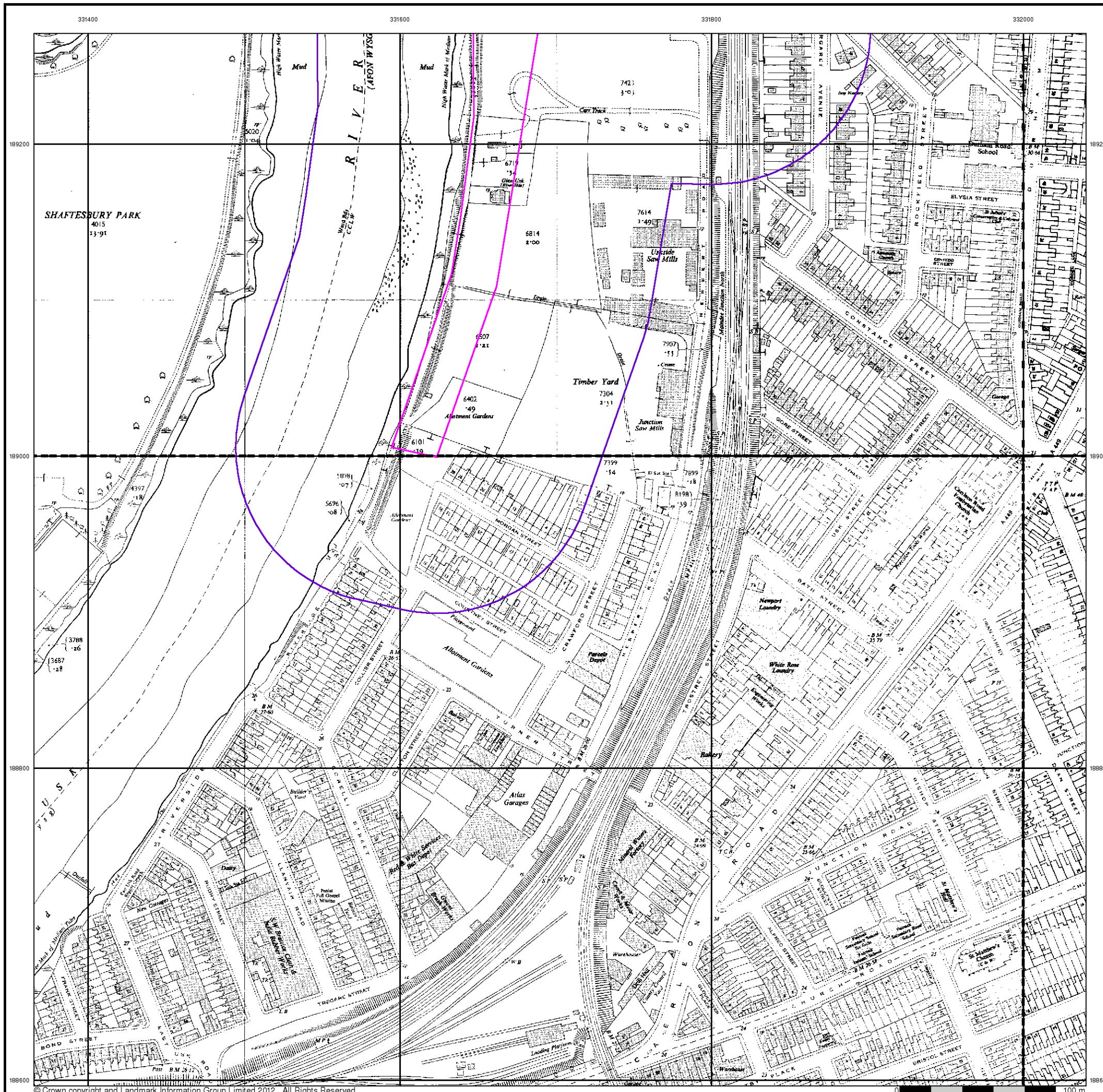
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

Herbert Road, NEWPORT, Gwent, NP19 7BH



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Additional SIMs

Published 1957 - 1992

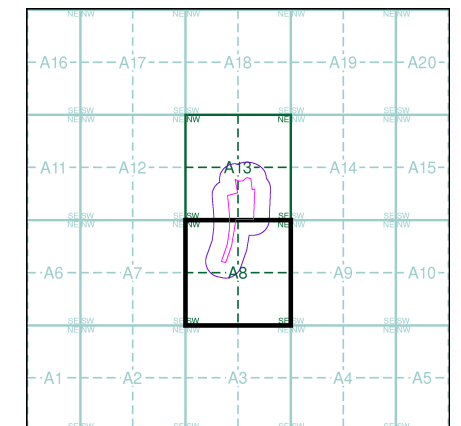
Source map scale - 1:1,250

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)

ST3189SW 1982 1:1,250	ST3189SE 1978 1:1,250	ST3289SW 1957 1:1,250
ST3188NW 1982 1:1,250	ST3188NE 1992 1:1,250	ST3288NW 1990 1:1,250

Historical Map - Segment A8



Order Details

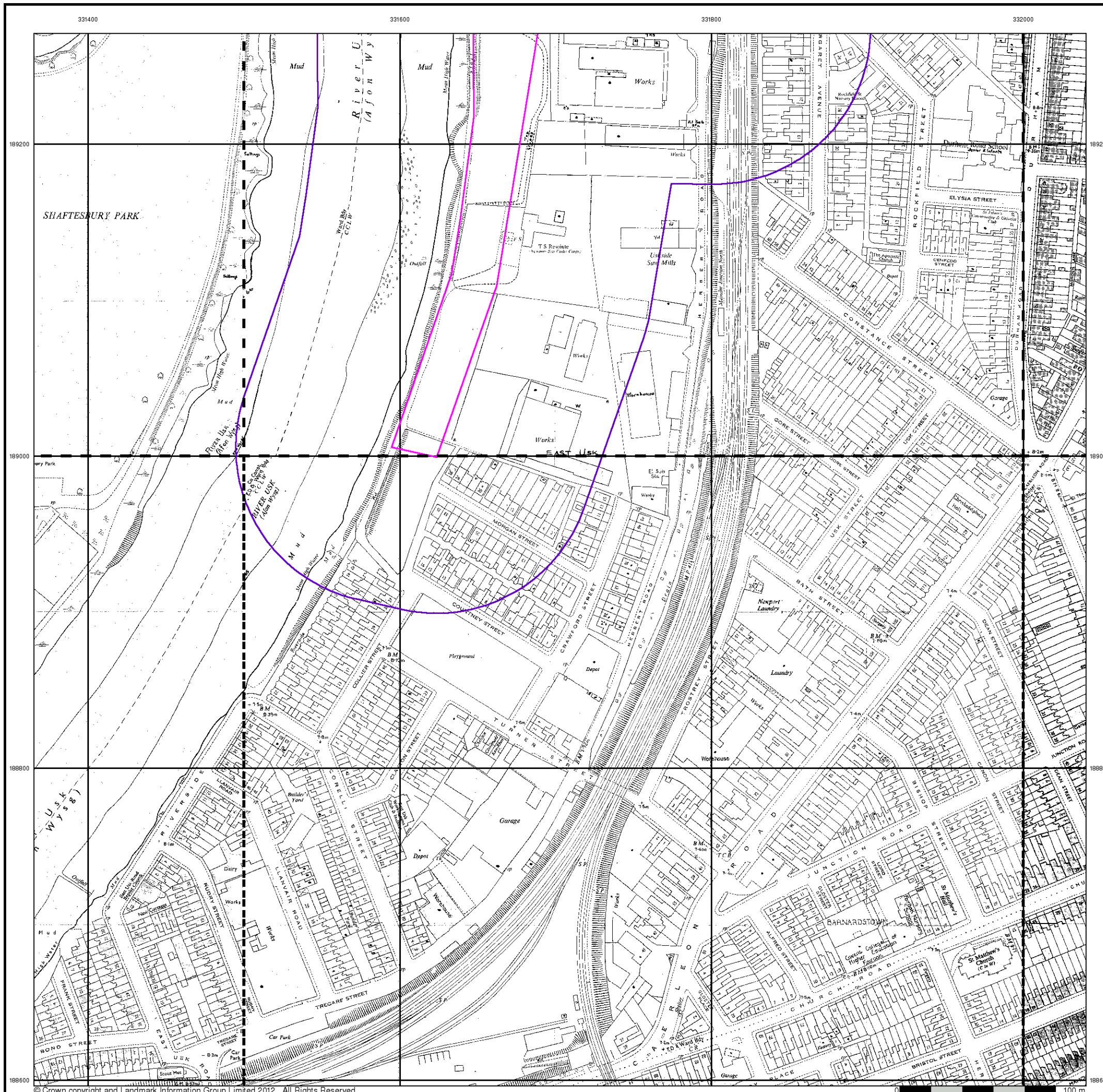
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

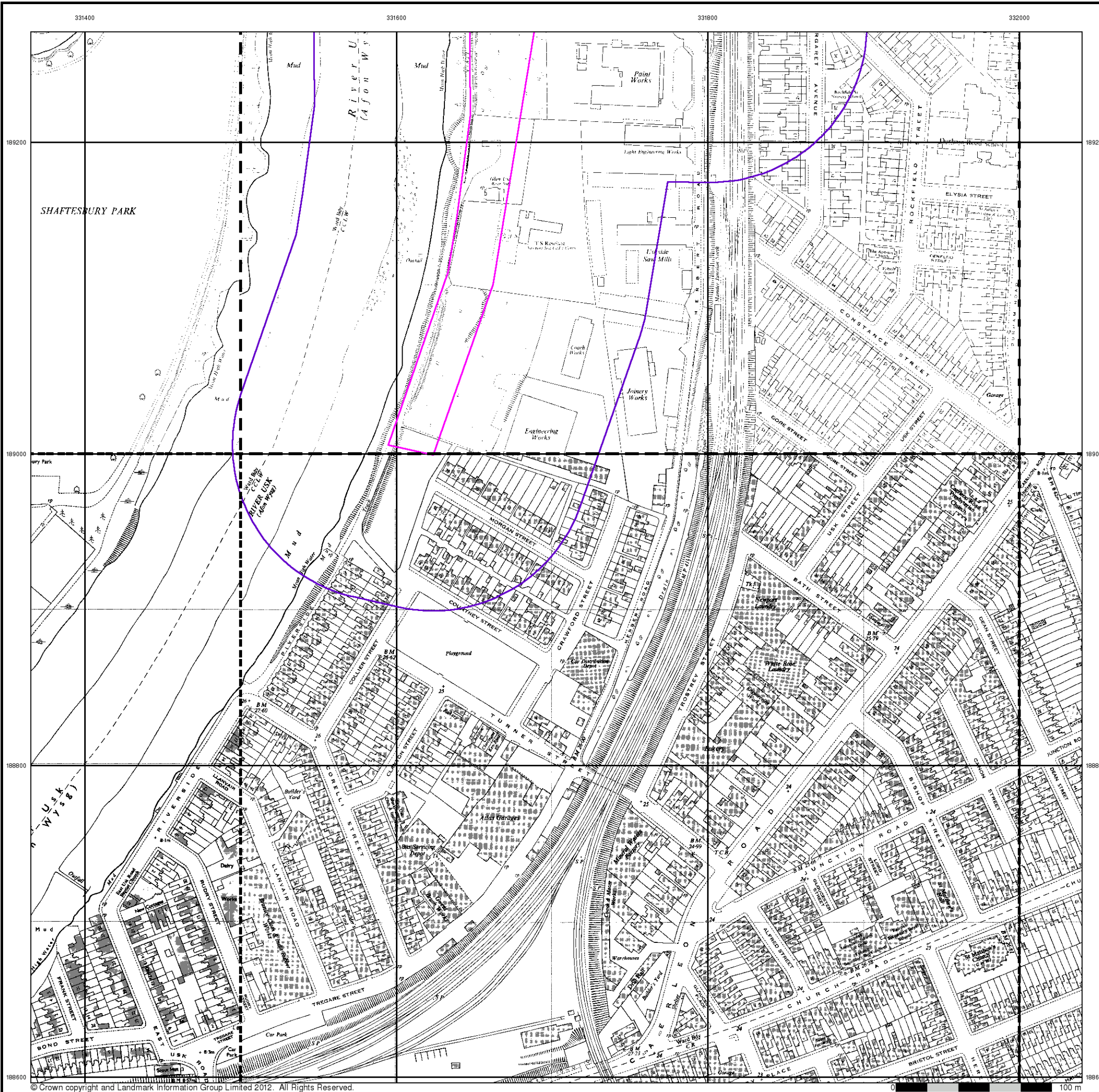
Site Details

Herbert Road, NEWPORT, Gwent, NP19 7BH



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





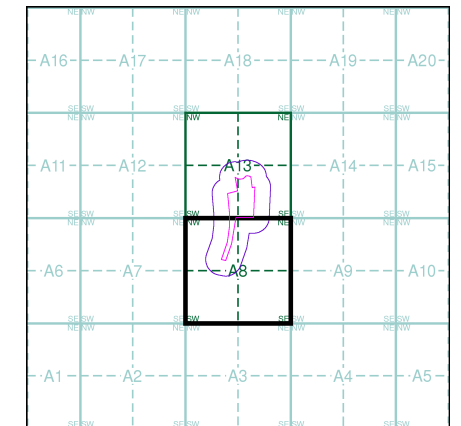
Ordnance Survey Plan
Published 1966 - 1976
Source map scale - 1:1,250

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)

ST3 189SW 1967 1:1,250	ST3 189SE 1966 1:1,250	
ST3 188NW 1976 1:1,250	ST3 188NE 1966 1:1,250	ST3 288NW 1974 1:1,250

Historical Map - Segment A8



Order Details

Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

Herbert Road, NEWPORT, Gwent, NP19 7BH



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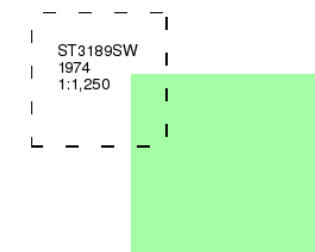
Supply of Unpublished Survey Information

Published 1974

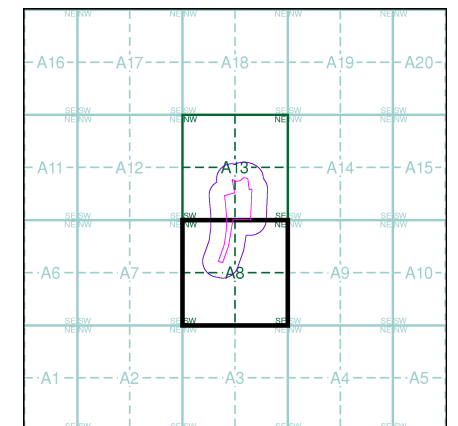
Source map scale - 1:1,250

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 A8



Order Details

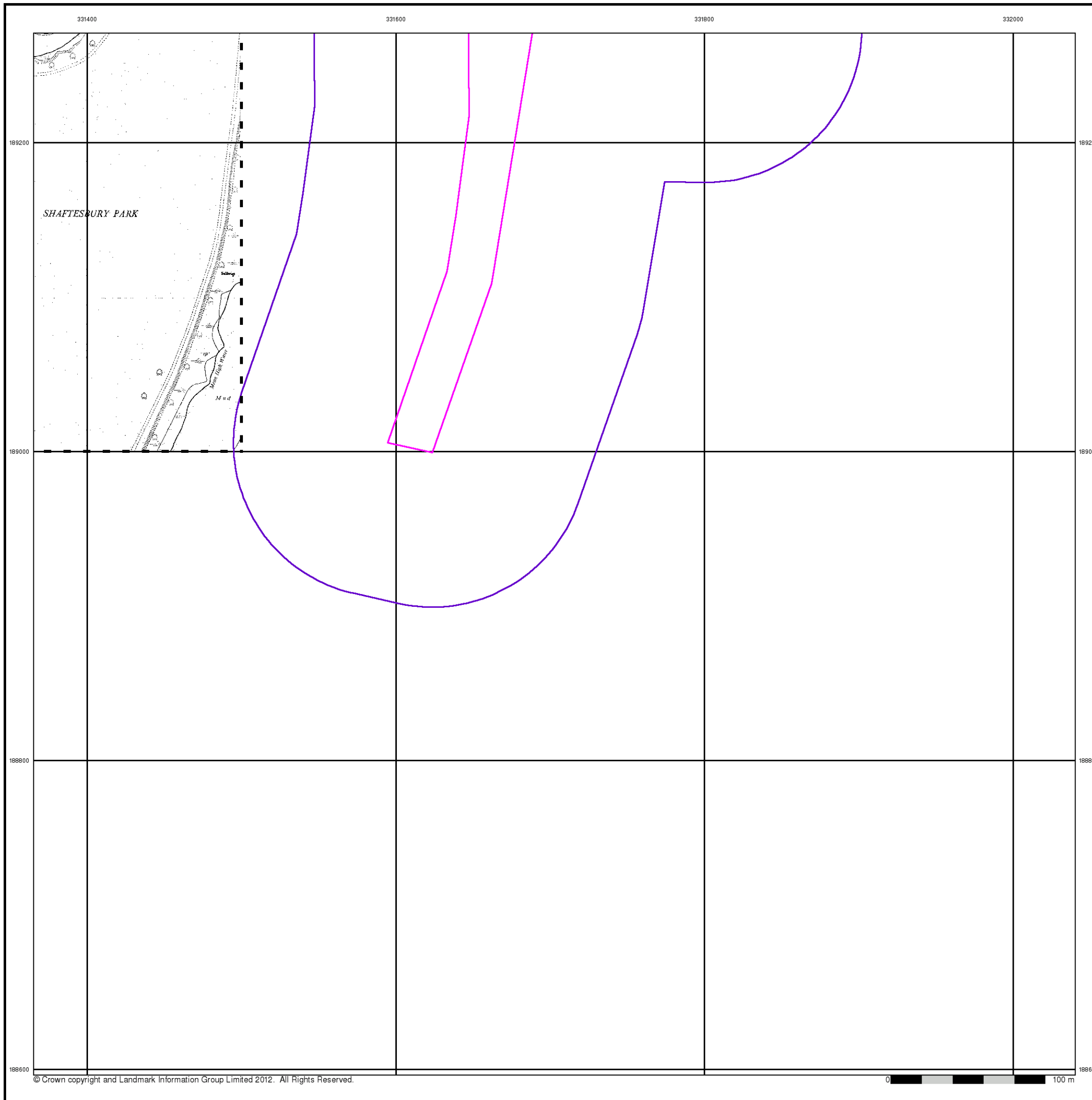
Order Number: 41914630_1_1
Customer Ref: 12044
National Grid Reference: 331690, 189280
Slice: A
Site Area (Ha): 4.52
Search Buffer (m): 100

Site Details

., Herbert Road, NEWPORT, Gwent, NP19 7BH



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Web: www.envirocheck.co.uk





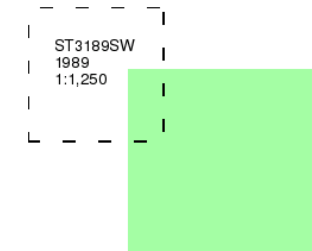
Additional SIMs

Published 1989

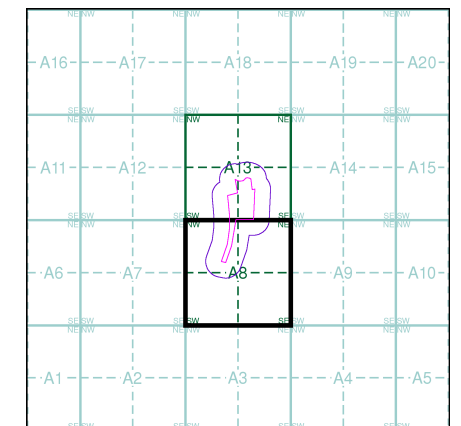
Source map scale - 1:1,250

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)



Historical Map - Segment A8



Order Details

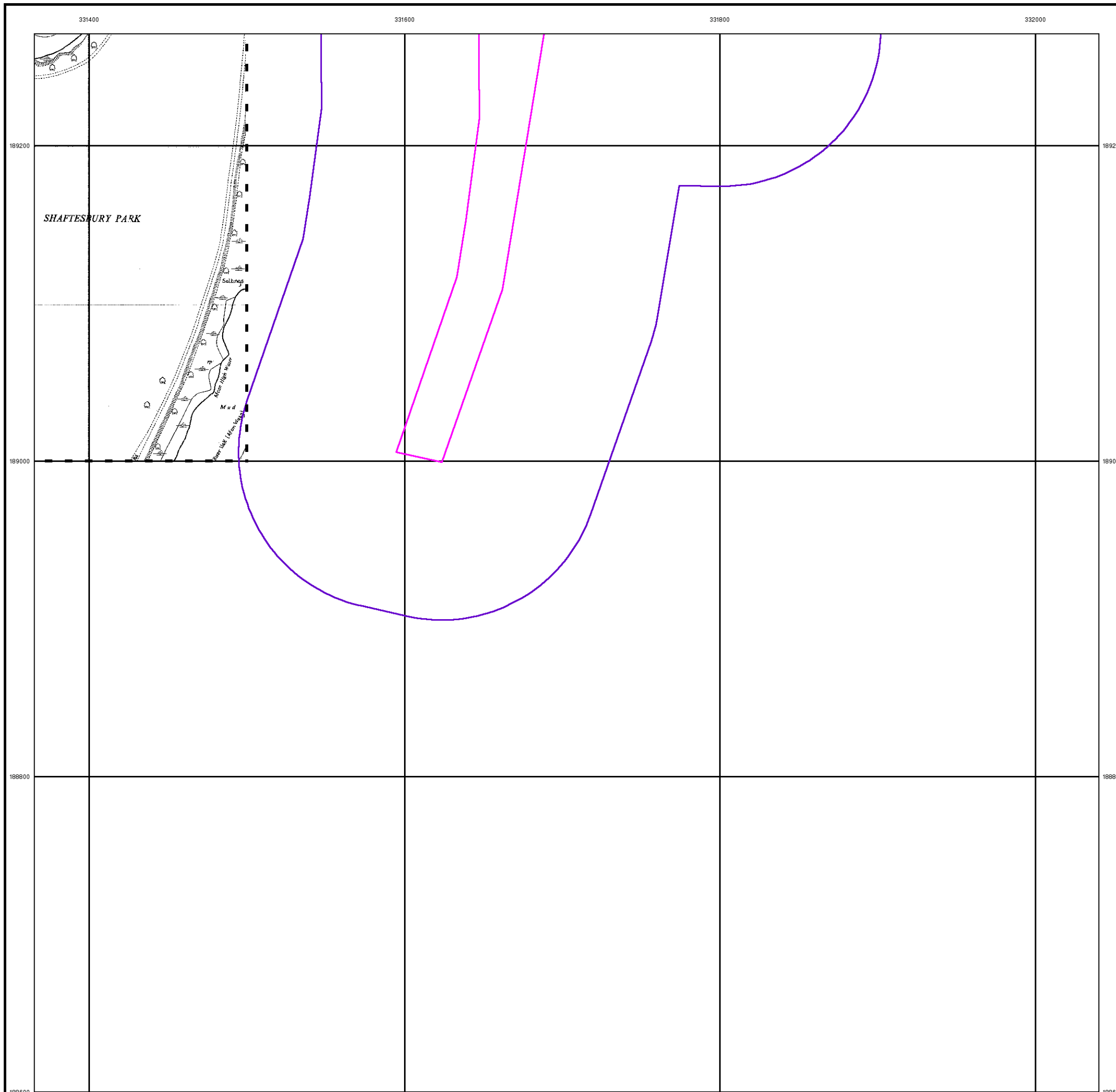
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

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





Large-Scale National Grid Data

Published 1993

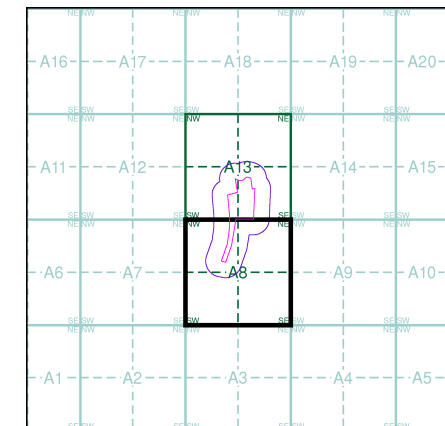
Source map scale - 1:1,250

'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)

ST3189SW 1993 1:1,250	ST3189SE 1993 1:1,250	ST3289SW 1993 1:1,250
ST3188NW 1993 1:1,250	ST3188NE 1993 1:1,250	ST3288NW 1993 1:1,250

Historical Map - Segment A8



Order Details

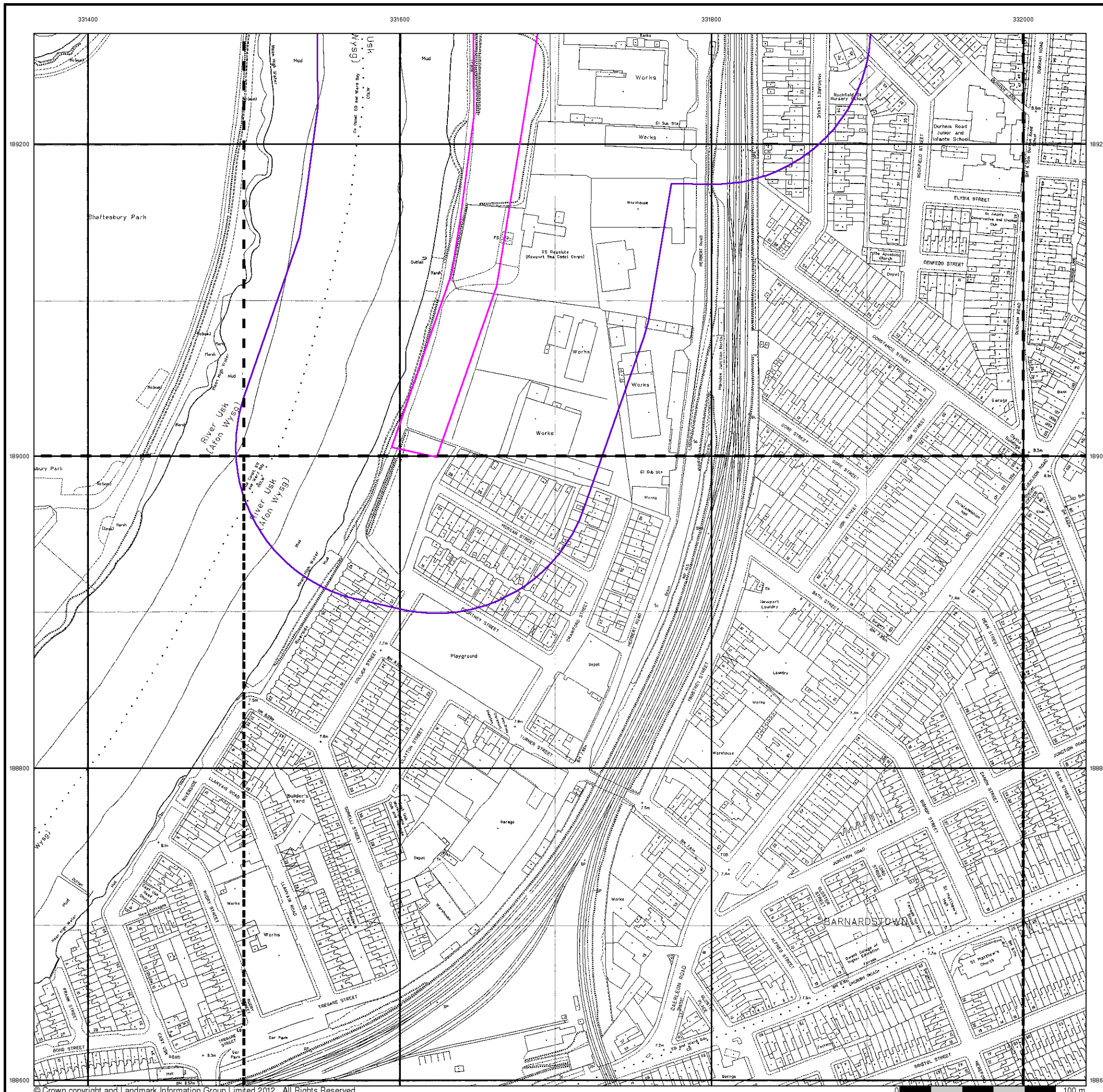
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

Herbert Road, NEWPORT, Gwent, NP19 7BH



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





Large-Scale National Grid Data

Published 1994 - 1997

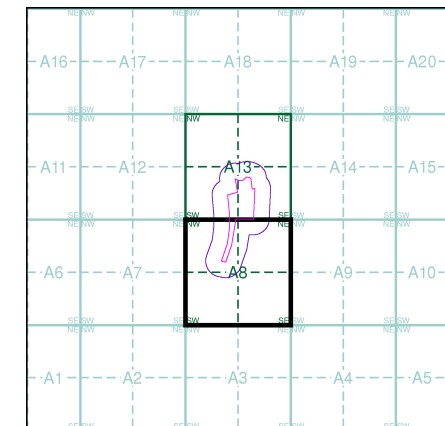
Source map scale - 1:1,250

'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)

ST3189SW 1994 1:1,250	ST3189SE 1994 1:1,250	
ST3188NW 1995 1:1,250	ST3188NE 1994 1:1,250	ST3288NW 1997 1:1,250

Historical Map - Segment A8



Order Details

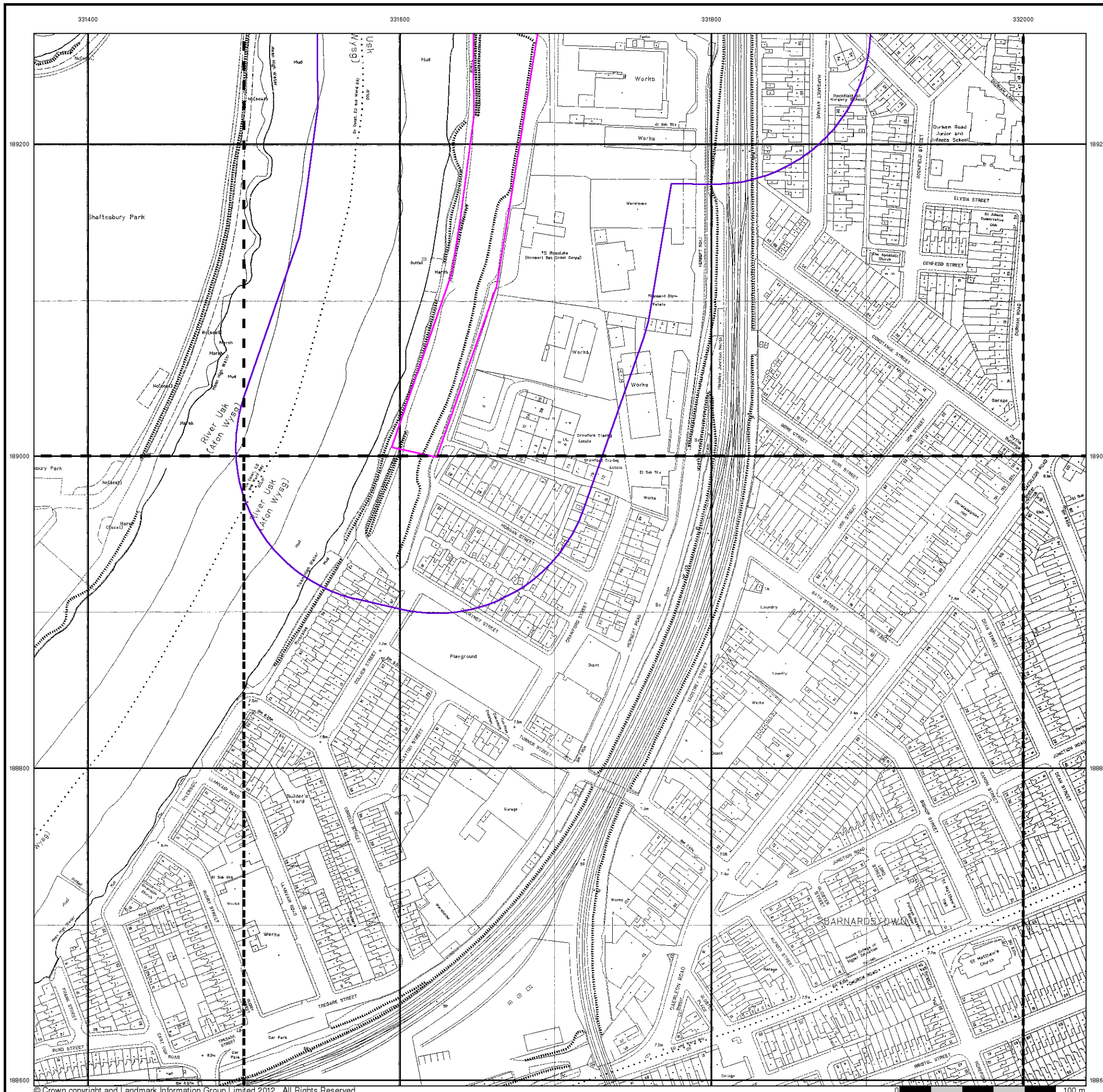
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

., Herbert Road, NEWPORT, Gwent, NP19 7BH



Tel: 0844 844 9952
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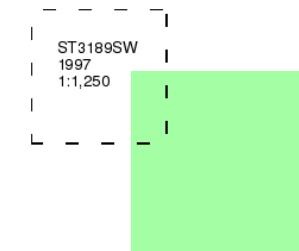
Large-Scale National Grid Data

Published 1997

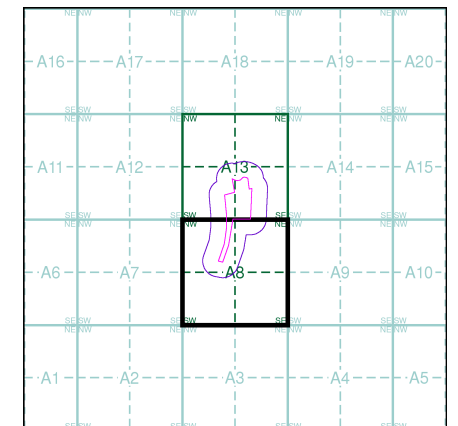
Source map scale - 1:1,250

'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 A8



Order Details

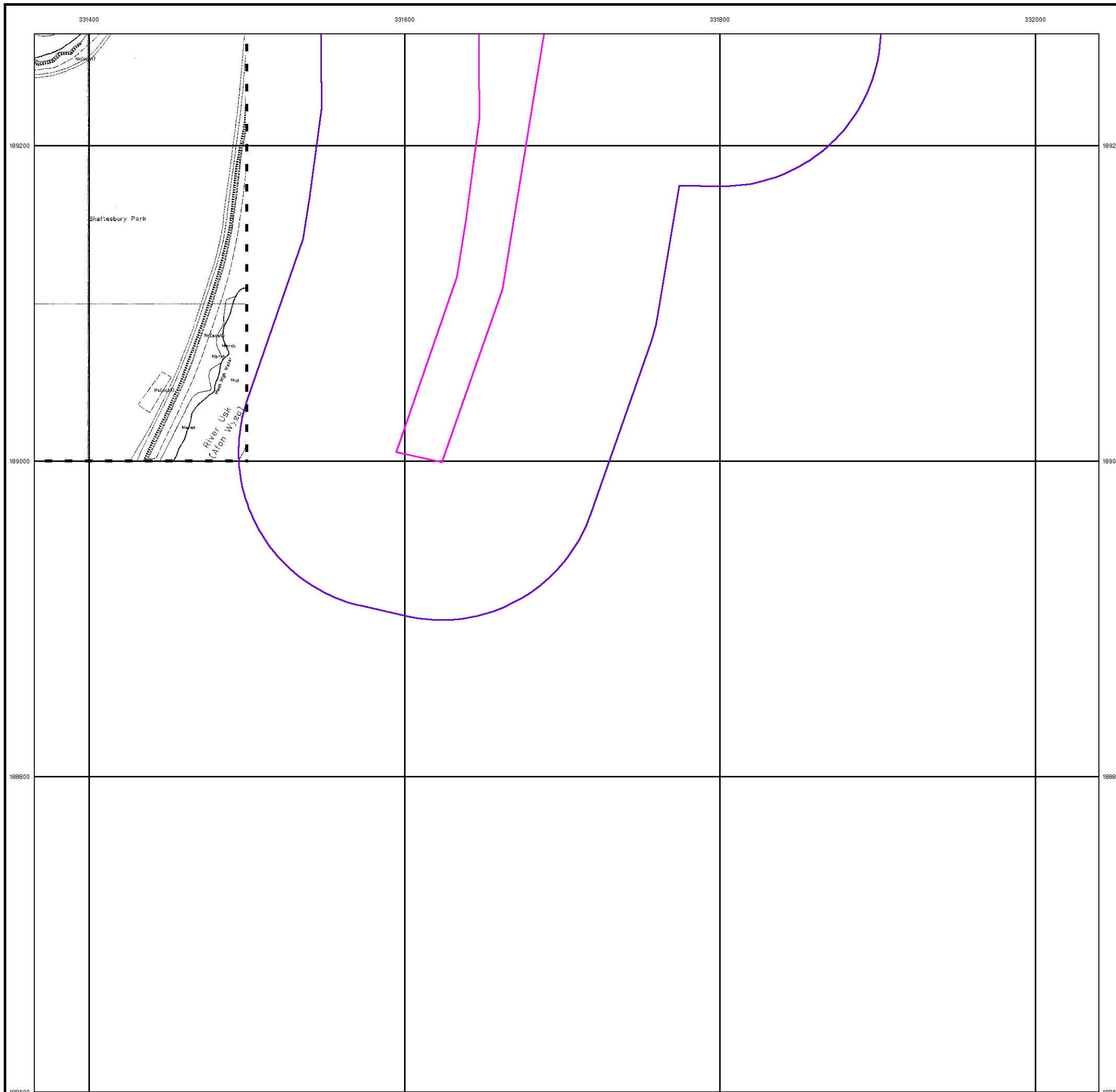
Order Number: 41914630_1_1
Customer Ref: 12044
National Grid Reference: 331690, 189280
Slice: A
Site Area (Ha): 4.52
Search Buffer (m): 100

Site Details

., Herbert Road, NEWPORT, Gwent, NP19 7BH



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Web: www.envirocheck.co.uk



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

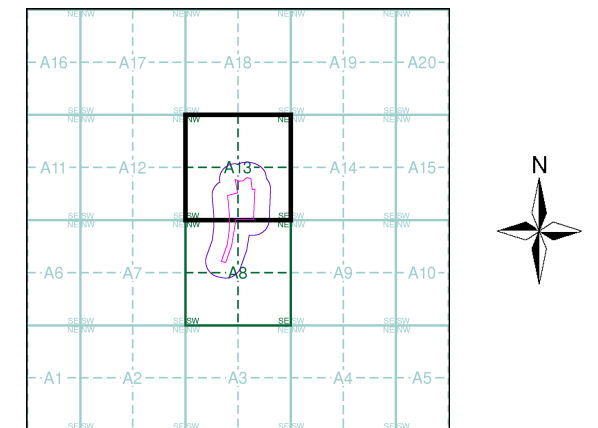
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **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



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Monmouthshire	1:2,500	1883	2
Monmouthshire	1:2,500	1901 - 1902	3
Monmouthshire	1:2,500	1920	4
Monmouthshire	1:2,500	1936 - 1937	5
Ordnance Survey Plan	1:2,500	1955 - 1957	6
Ordnance Survey Plan	1:1,250	1955 - 1957	7
Additional SIMs	1:1,250	1957 - 1989	8
Ordnance Survey Plan	1:1,250	1966 - 1968	9
Ordnance Survey Plan	1:2,500	1969 - 1970	10
Supply of Unpublished Survey Information	1:1,250	1974	11
Ordnance Survey Plan	1:1,250	1977	12
Additional SIMs	1:1,250	1978 - 1989	13
Additional SIMs	1:1,250	1989	14
Large-Scale National Grid Data	1:1,250	1993	15
Large-Scale National Grid Data	1:1,250	1994 - 1995	16
Large-Scale National Grid Data	1:1,250	1995 - 1997	17
Large-Scale National Grid Data	1:1,250	1995	18

Historical Map - Segment A13



Order Details

Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

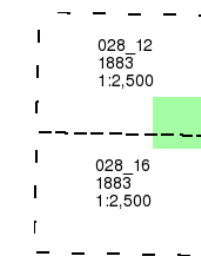
., Herbert Road, NEWPORT, Gwent, NP19 7BH



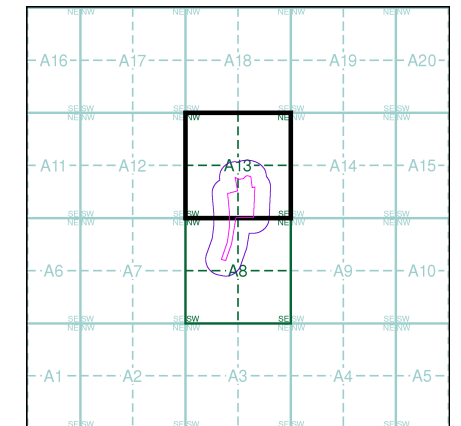
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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

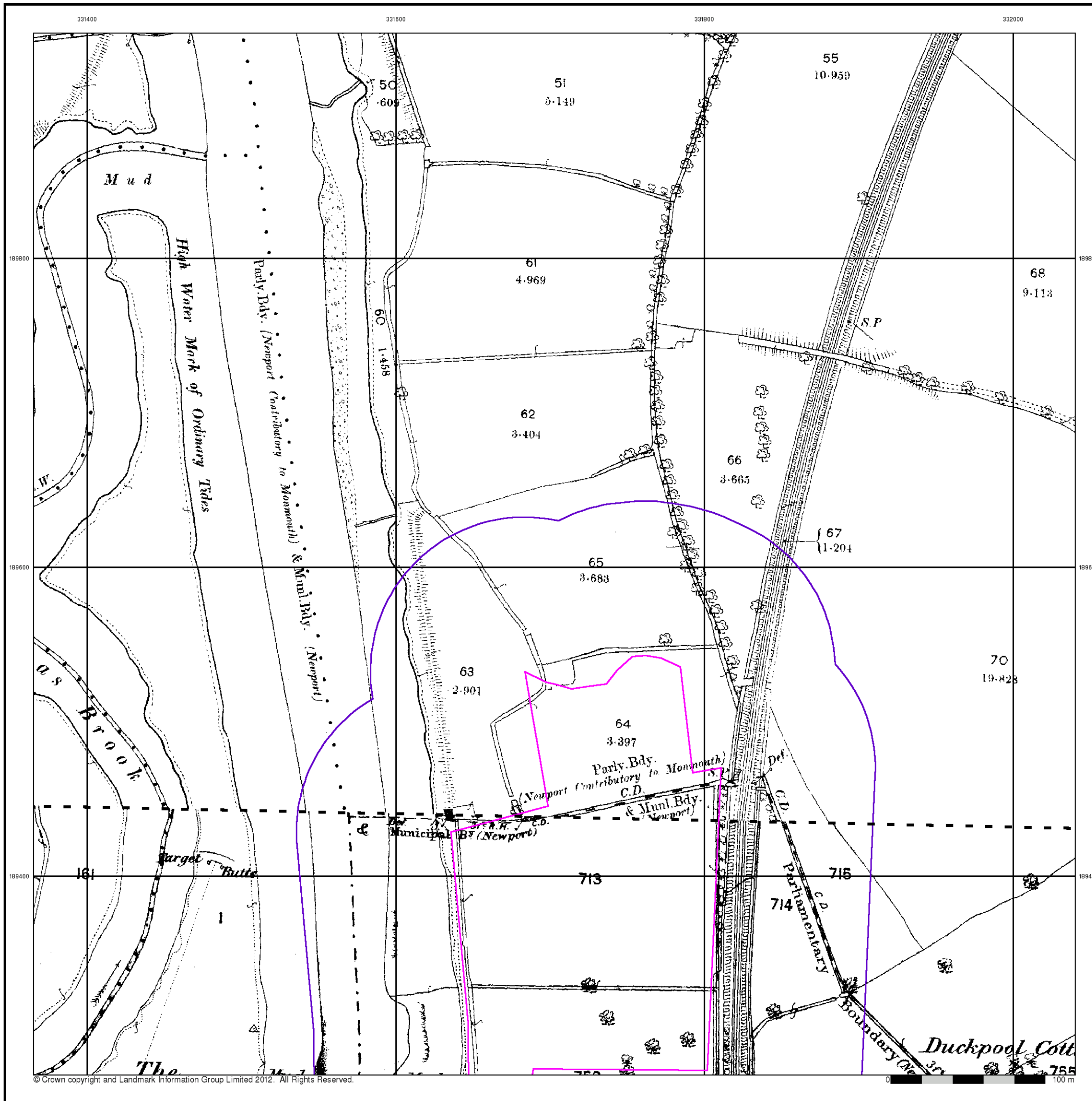


Order Details

Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

Herbert Road, NEWPORT, Gwent, NP19 7BH





Monmouthshire

Published 1901 - 1902

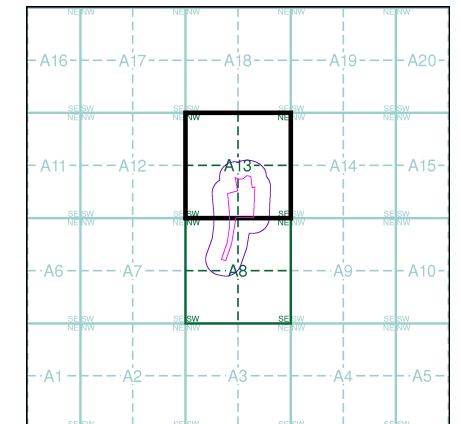
Source map scale - 1:2,500

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)

028_12	1901	1:2,500
028_16	1902	1:2,500

Historical Map - Segment A13



Order Details

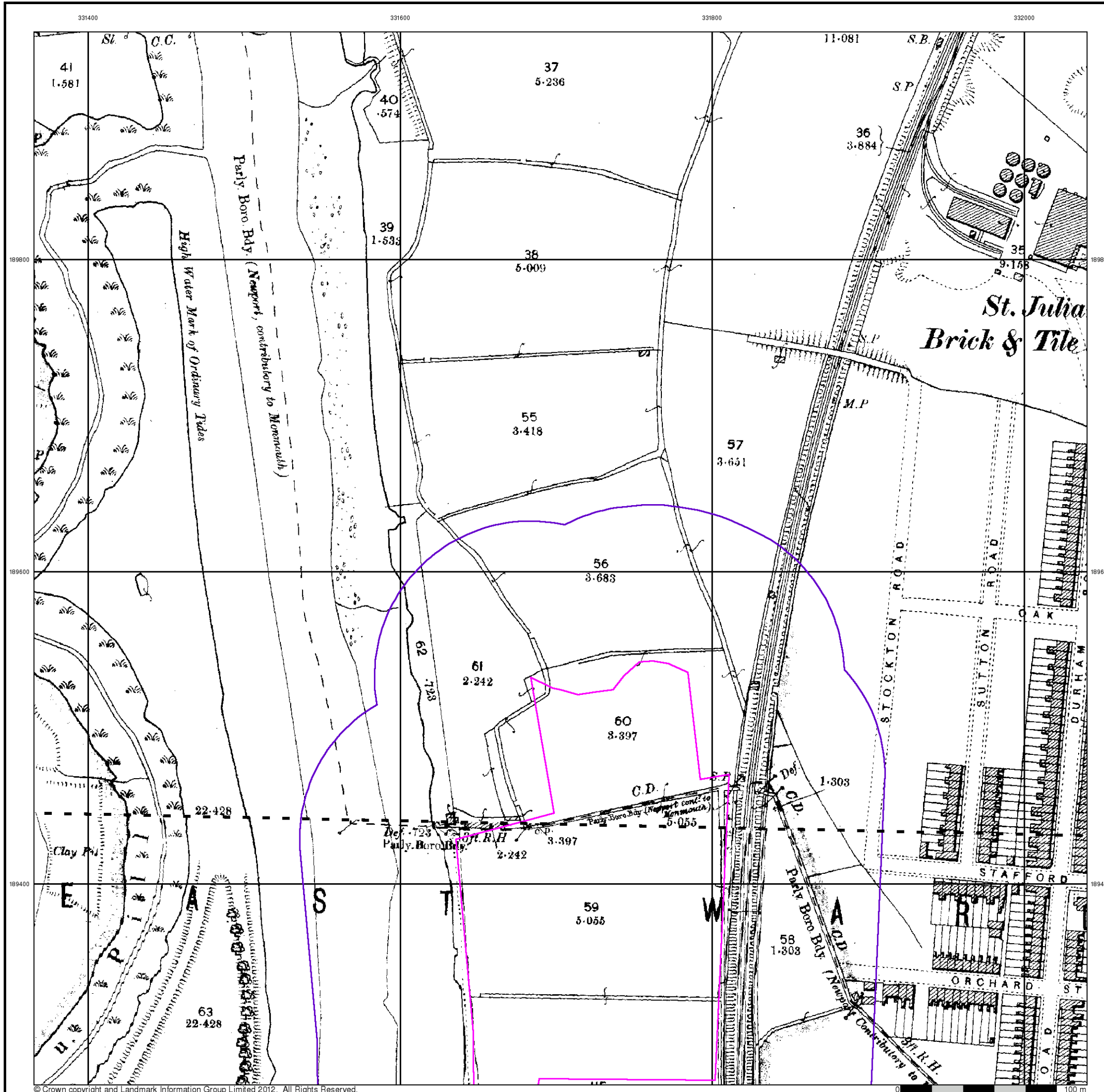
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

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Monmouthshire

Published 1920

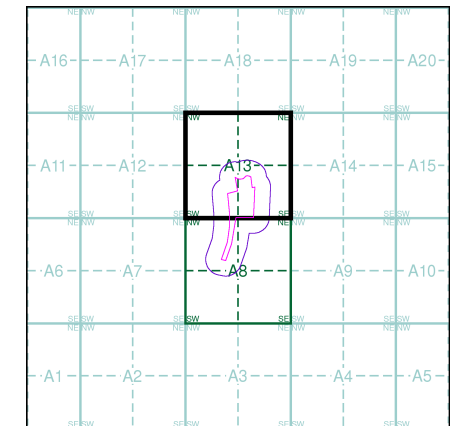
Source map scale - 1:2,500

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)

028_12	1920	1:2,500
028_16	1920	1:2,500

Historical Map - Segment A13



Order Details

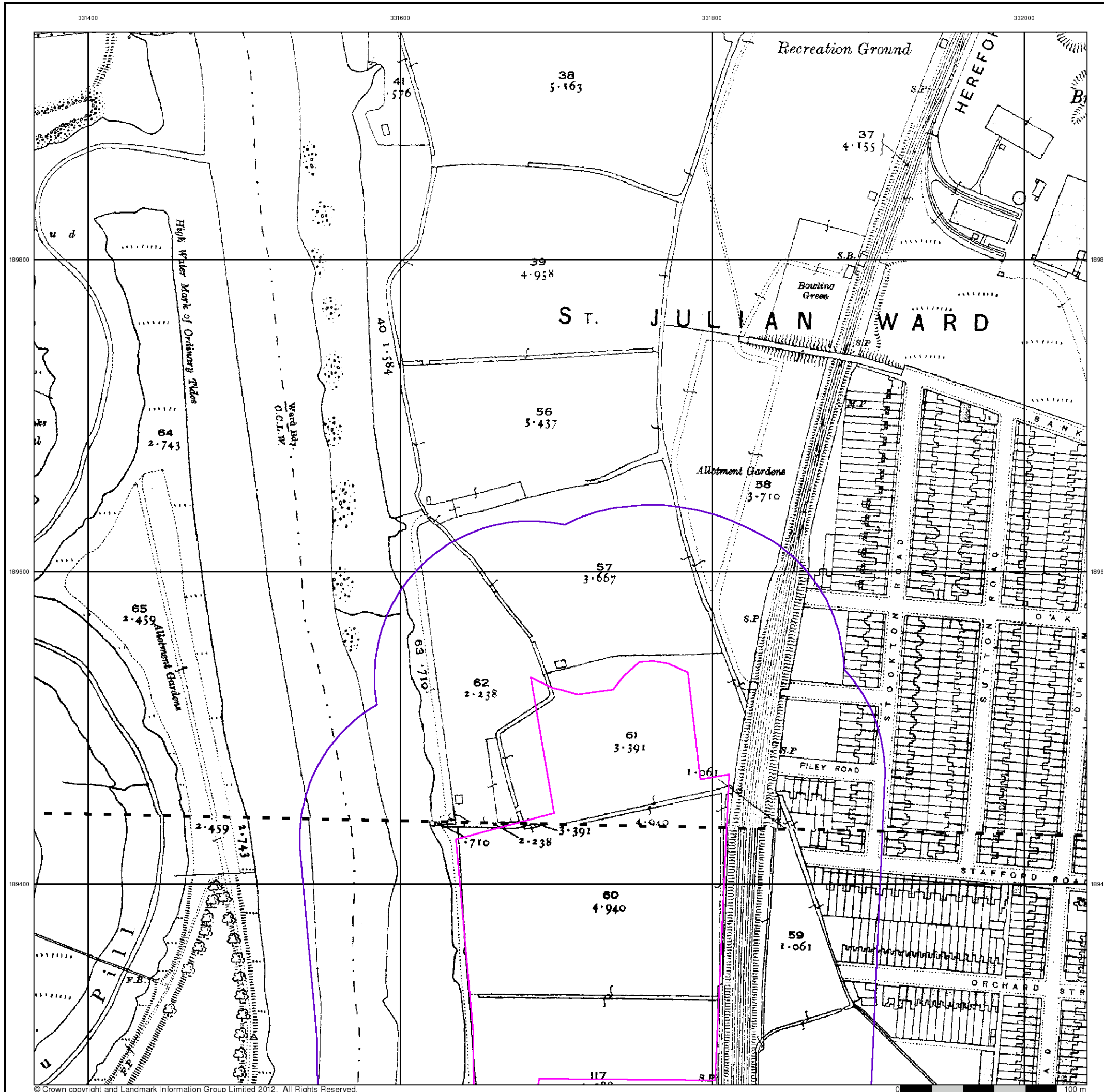
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

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Monmouthshire

Published 1936 - 1937

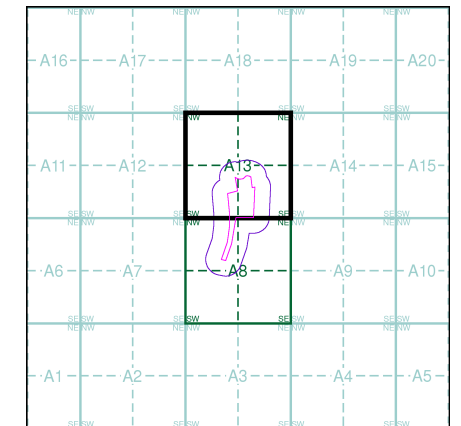
Source map scale - 1:2,500

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)

028_12	1936	1:2,500
028_16	1937	1:2,500

Historical Map - Segment A13



Order Details

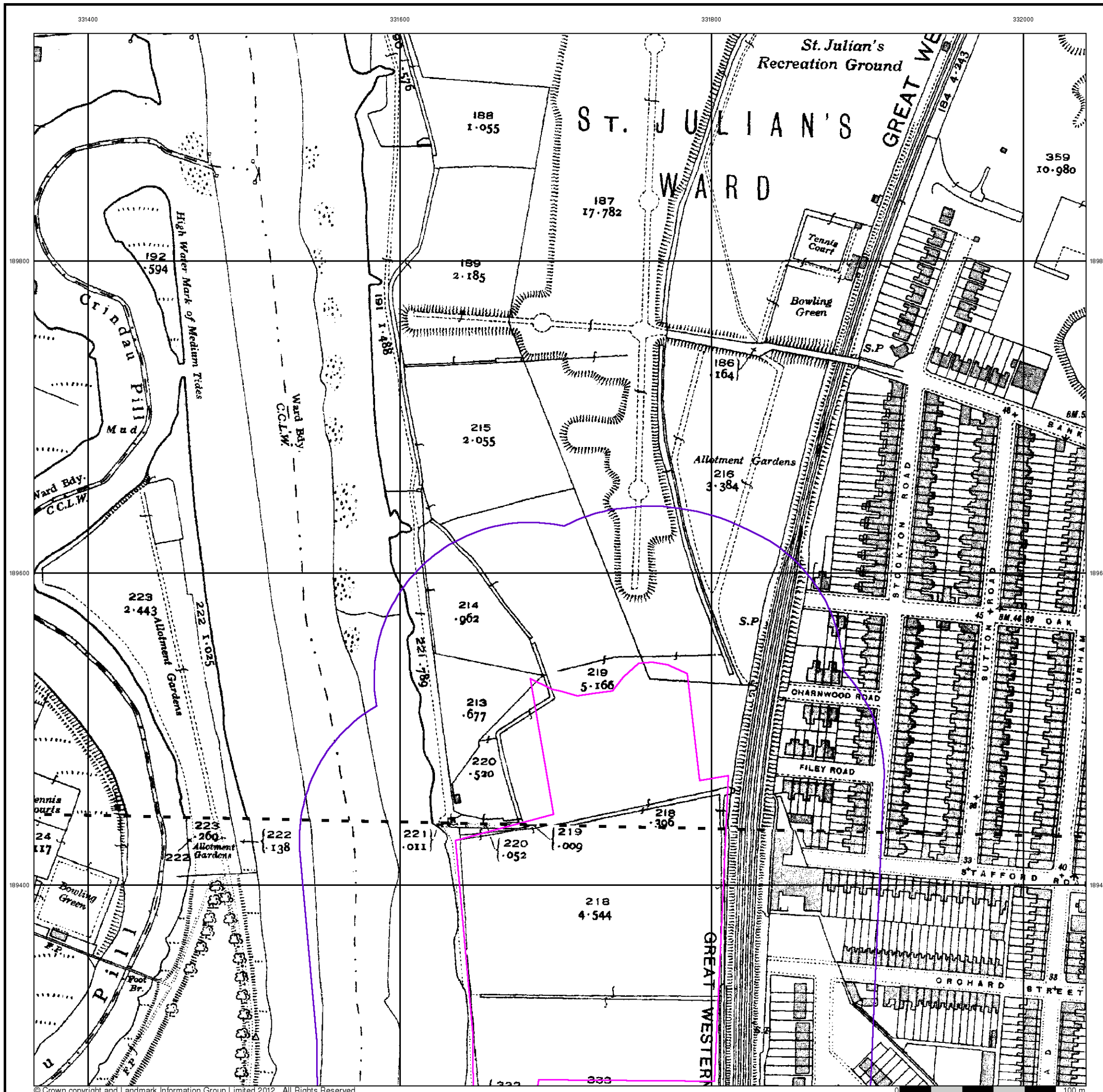
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

Herbert Road, NEWPORT, Gwent, NP19 7BH



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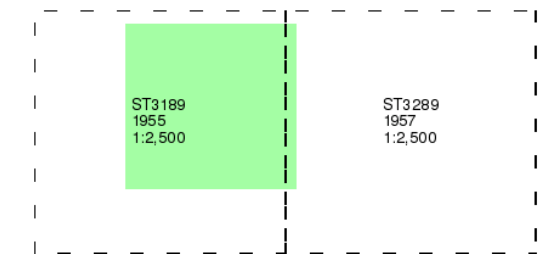
Ordnance Survey Plan

Published 1955 - 1957

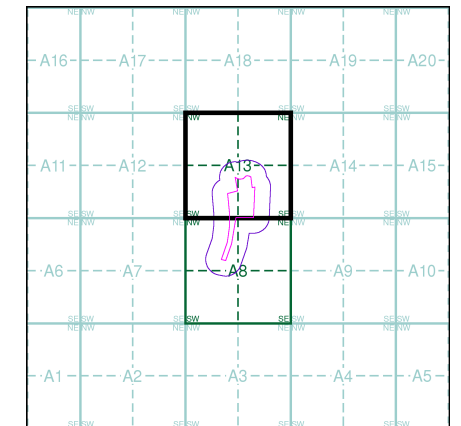
Source map scale - 1:2,500

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)



Historical Map - Segment A13



Order Details

Order Number: 41914630_1_1
Customer Ref: 12044
National Grid Reference: 331690, 189280
Slice: A
Site Area (Ha): 4.52
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1955 - 1957

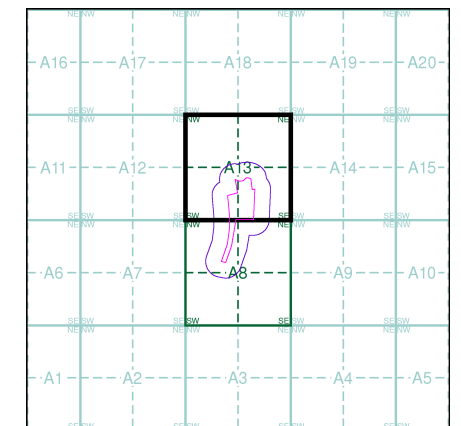
Source map scale - 1:1,250

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)

ST3 189NW 1955 1:1,250	ST3 189NE 1955 1:1,250	ST3 289NW 1957 1:1,250
ST3 189SW 1955 1:1,250	ST3 189SE 1955 1:1,250	ST3 289SW 1957 1:1,250

Historical Map - Segment A13



Order Details

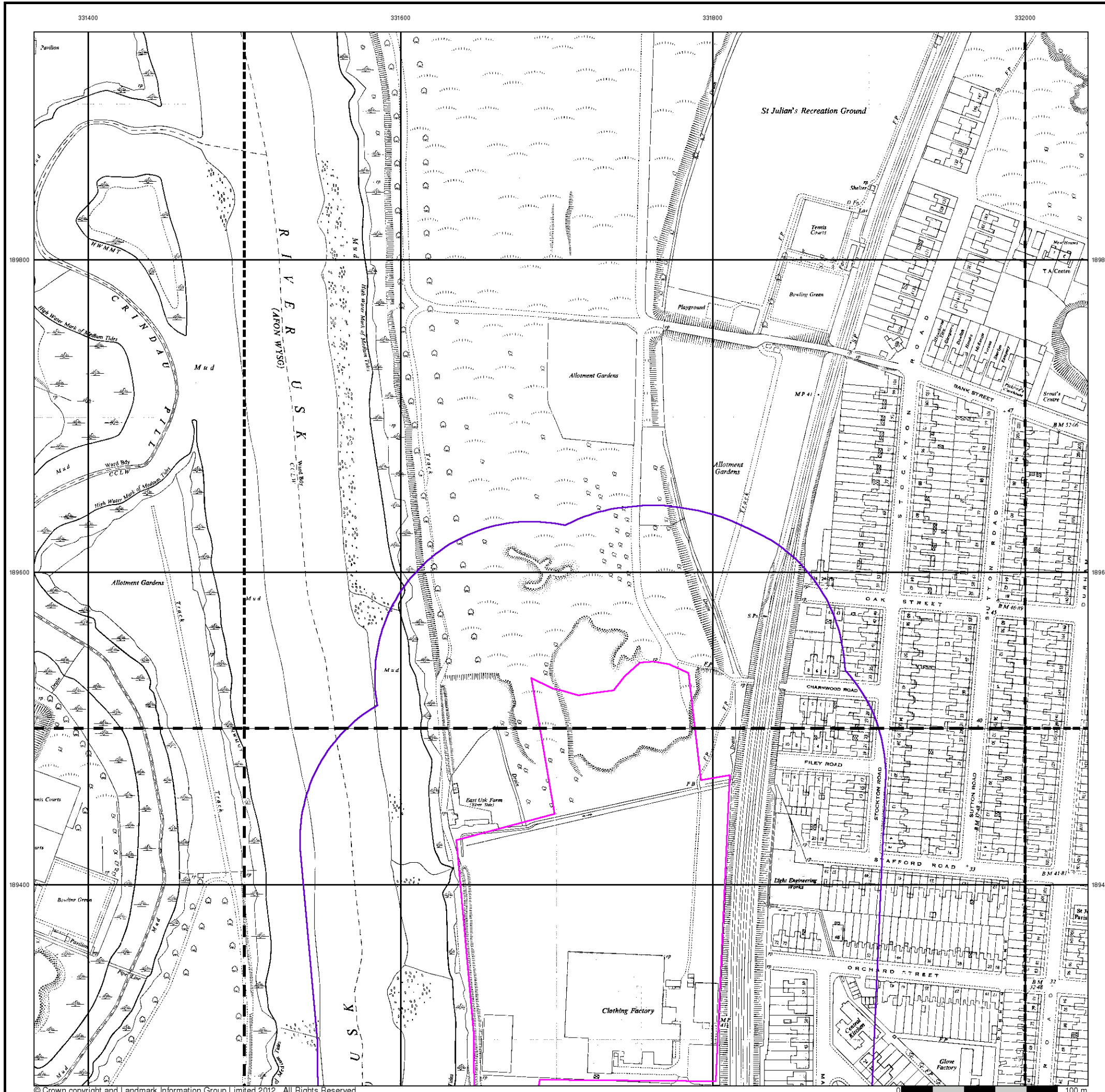
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

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Additional SIMs

Published 1957 - 1989

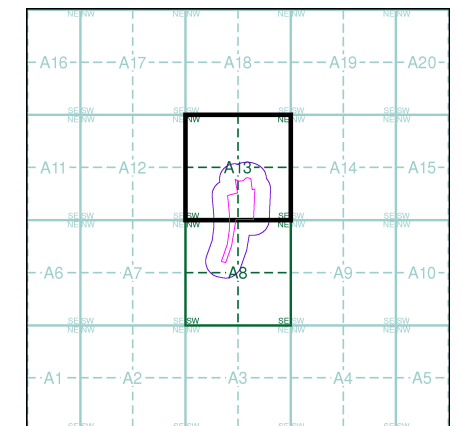
Source map scale - 1:1,250

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)

ST3 189NW 1989 1:1,250	ST3 189NE 1986 1:1,250	ST3 289NW 1988 1:1,250
ST3 189SW 1982 1:1,250	ST3 189SE 1978 1:1,250	ST3 289SW 1957 1:1,250

Historical Map - Segment A13



Order Details

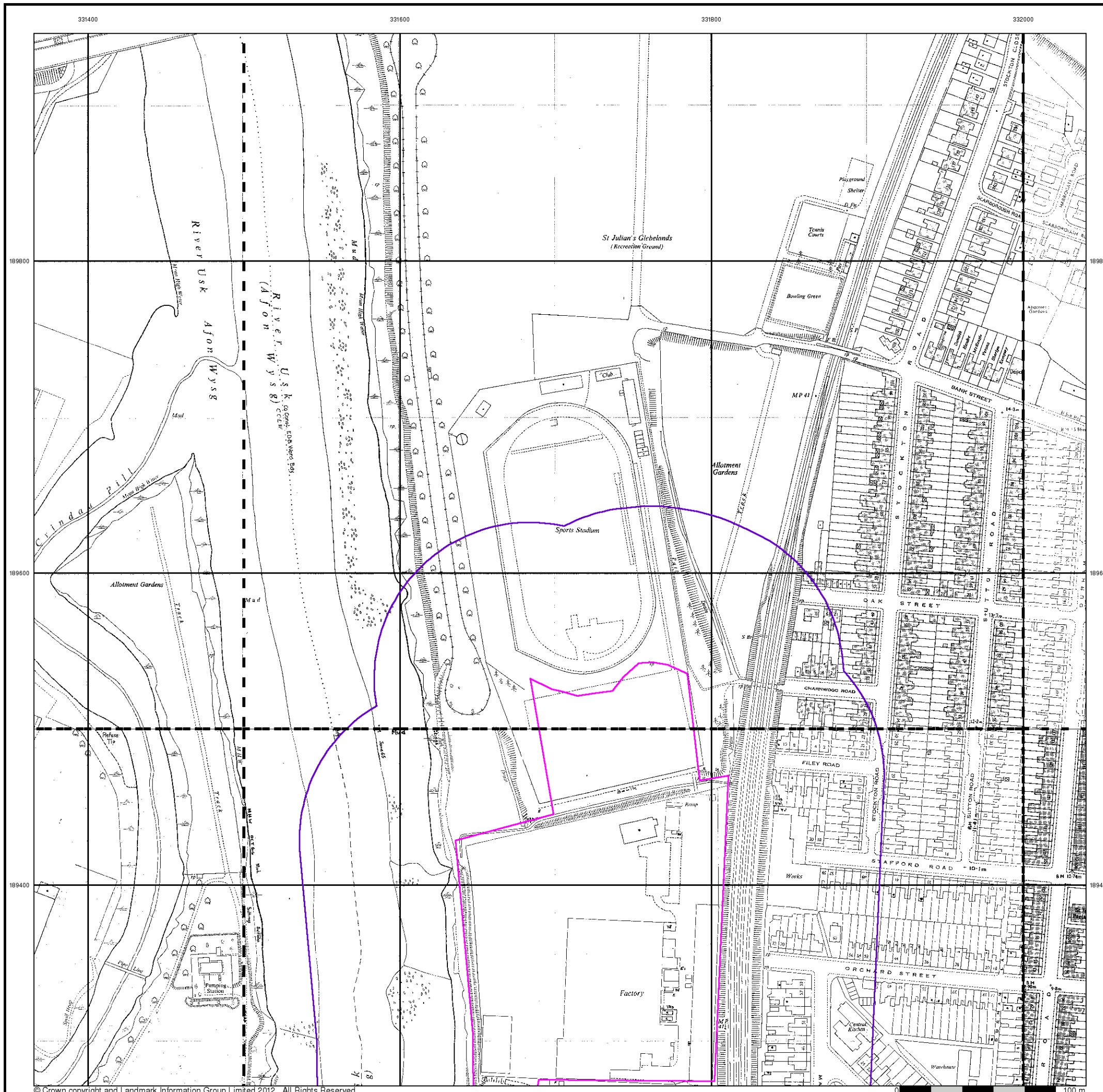
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1966 - 1968

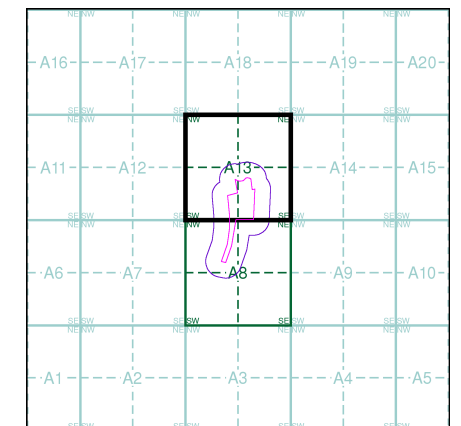
Source map scale - 1:1,250

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)

ST3189NW 1968 1:1,250	ST3189NE 1968 1:1,250	ST3289NW 1968 1:1,250
ST3189SW 1967 1:1,250	ST3189SE 1966 1:1,250	

Historical Map - Segment A13



Order Details

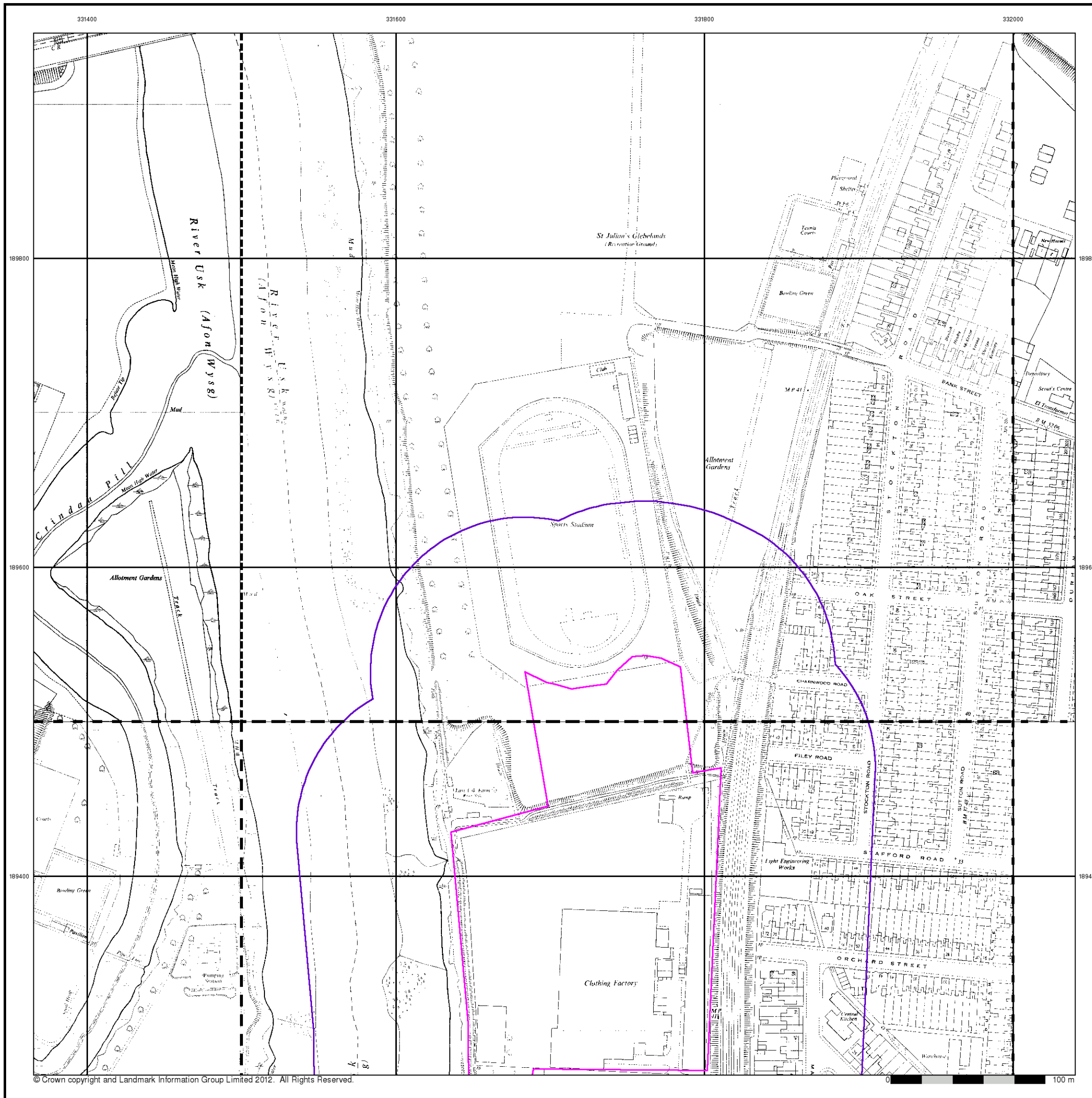
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

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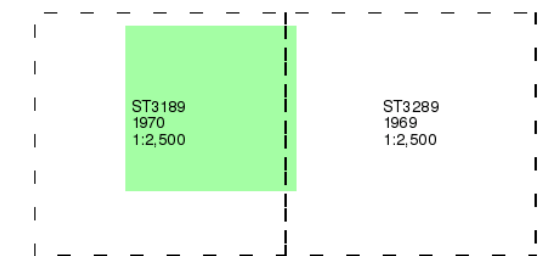
Ordnance Survey Plan

Published 1969 - 1970

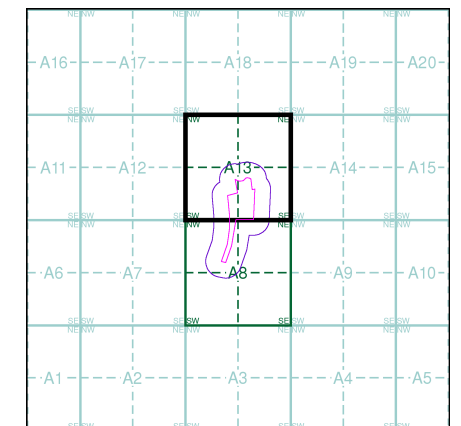
Source map scale - 1:2,500

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)



Historical Map - Segment A13



Order Details

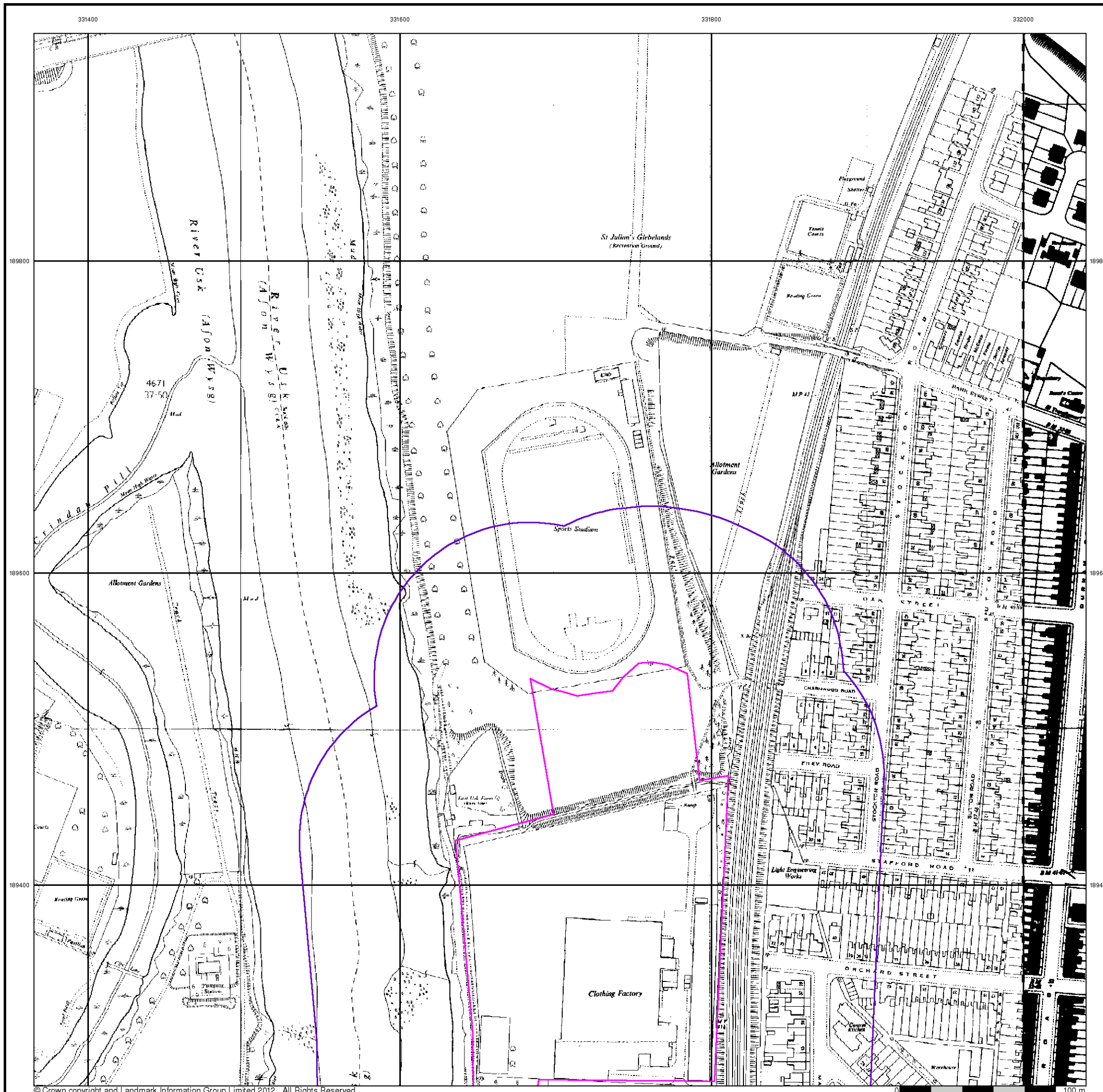
Order Number: 41914630_1_1
Customer Ref: 12044
National Grid Reference: 331690, 189280
Slice: A
Site Area (Ha): 4.52
Search Buffer (m): 100

Site Details

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Supply of Unpublished Survey Information

Published 1974

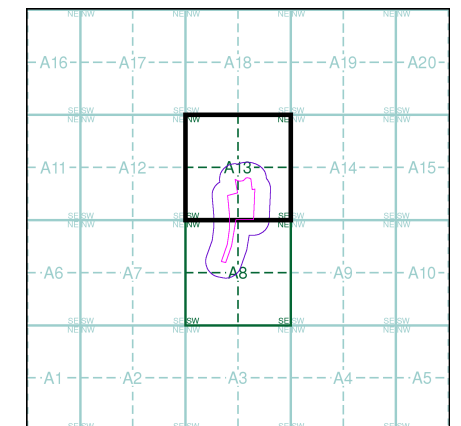
Source map scale - 1:1,250

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)

ST3189NW	1974	1:1,250
ST3189SW	1974	1:1,250

Historical Map - Segment A13



Order Details

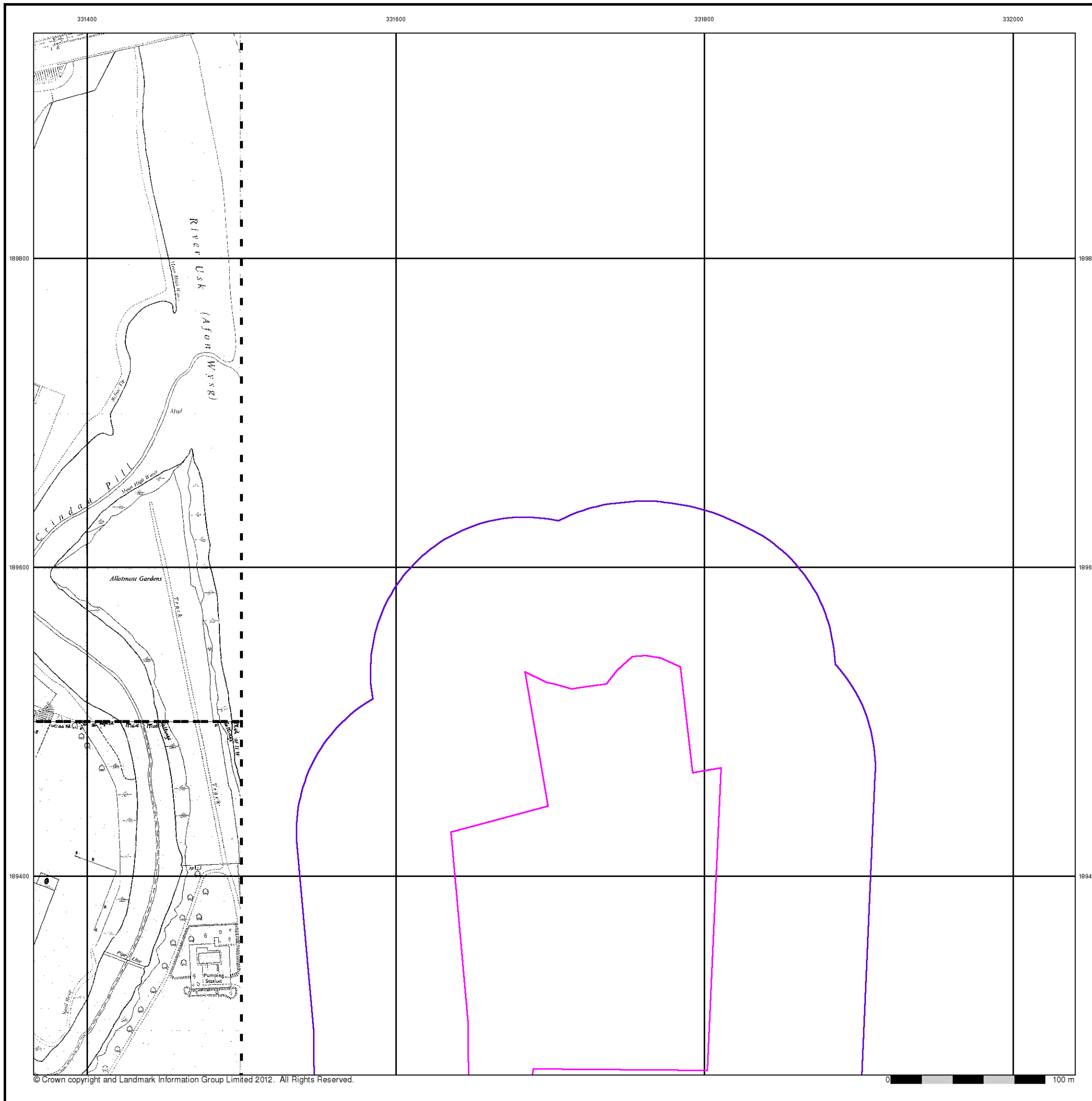
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

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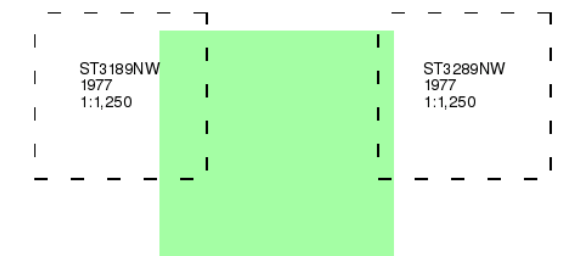
Ordnance Survey Plan

Published 1977

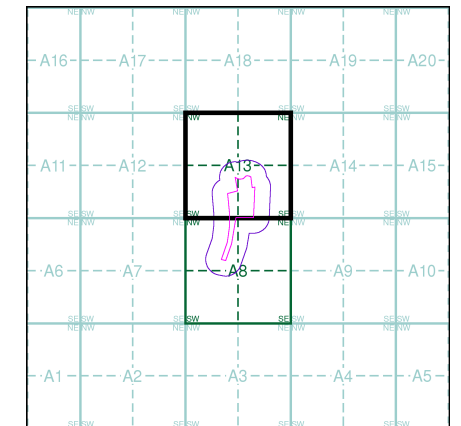
Source map scale - 1:1,250

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

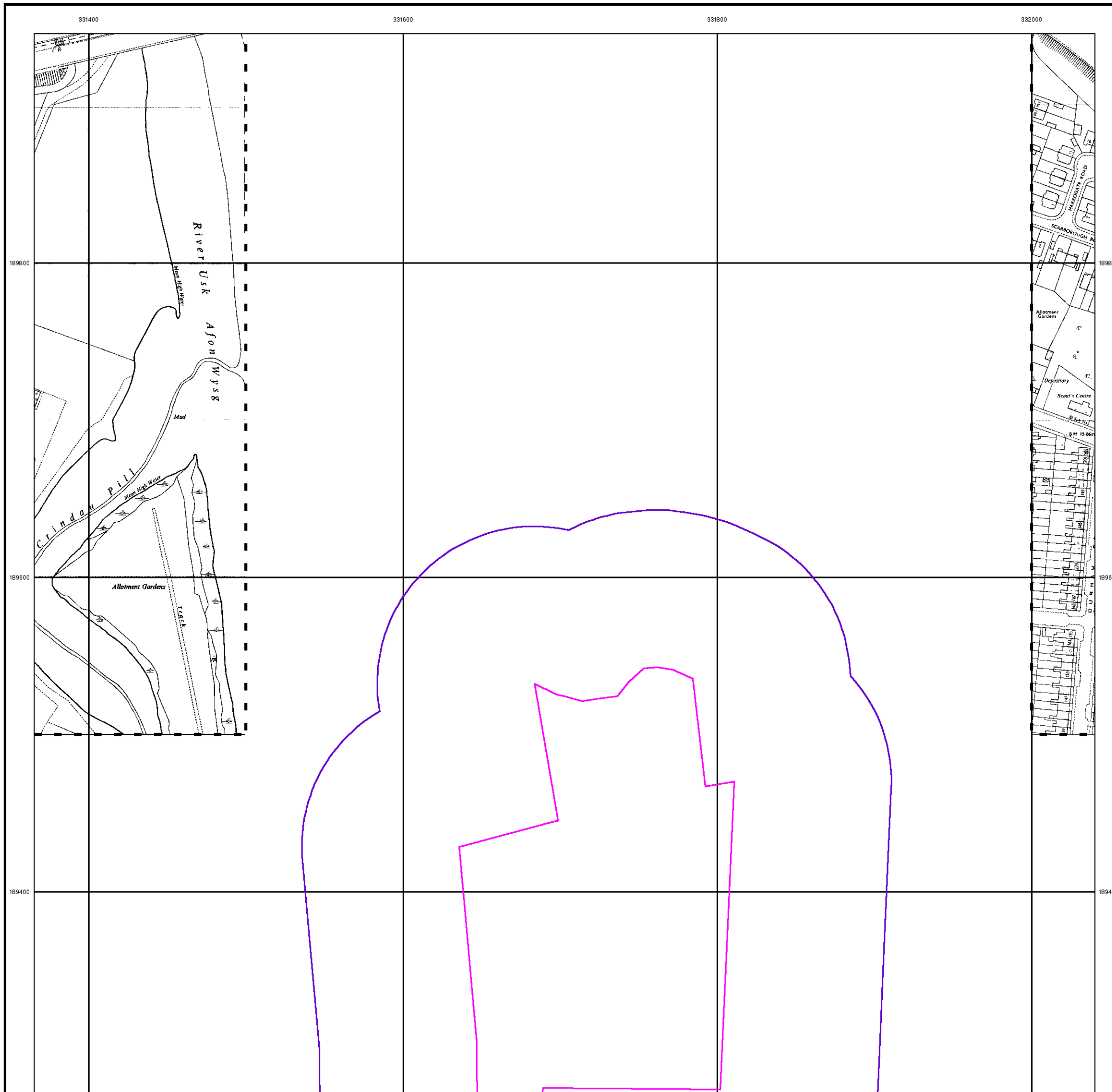
Order Number: 41914630_1_1
Customer Ref: 12044
National Grid Reference: 331690, 189280
Slice: A
Site Area (Ha): 4.52
Search Buffer (m): 100

Site Details

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Additional SIMs

Published 1978 - 1989

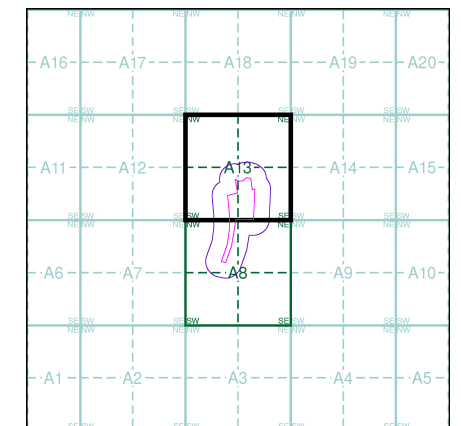
Source map scale - 1:1,250

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)

		ST3289NW 1989 1:1,250
ST3189SW 1987 1:1,250	ST3189SE 1987 1:1,250	ST3289SW 1978 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

., Herbert Road, NEWPORT, Gwent, NP19 7BH



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331400

331600

331800

332000

189800

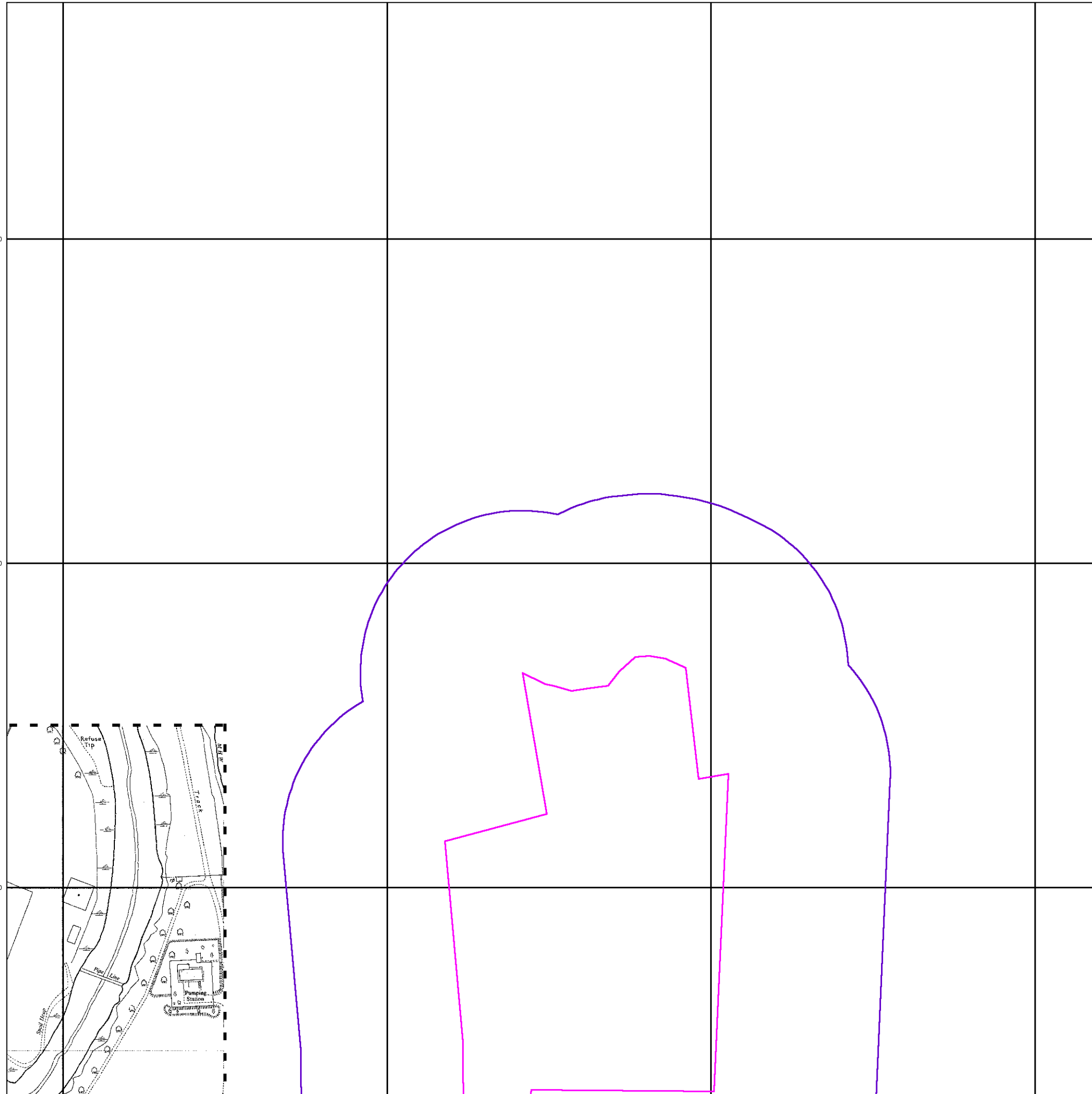
189800

189600

189600

189400

189400



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0 100 m



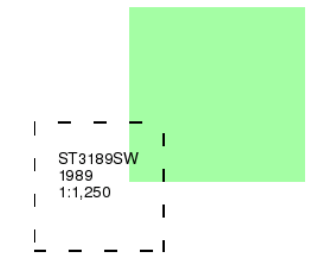
Additional SIMs

Published 1989

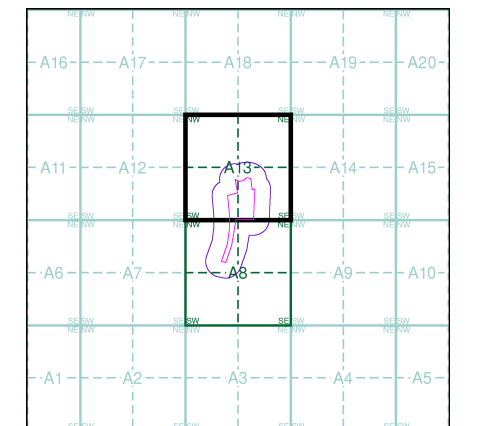
Source map scale - 1:1,250

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)



Historical Map - Segment A13



Order Details

Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1993

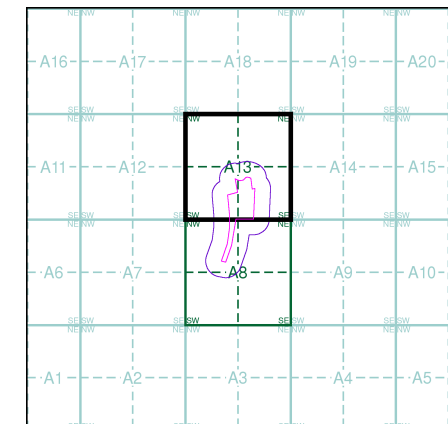
Source map scale - 1:1,250

'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)

ST3 189NW 1993 1:1,250	ST3 189NE 1993 1:1,250	ST3 289NW 1993 1:1,250
ST3 189SW 1993 1:1,250	ST3 189SE 1993 1:1,250	ST3 289SW 1993 1:1,250

Historical Map - Segment A13



Order Details

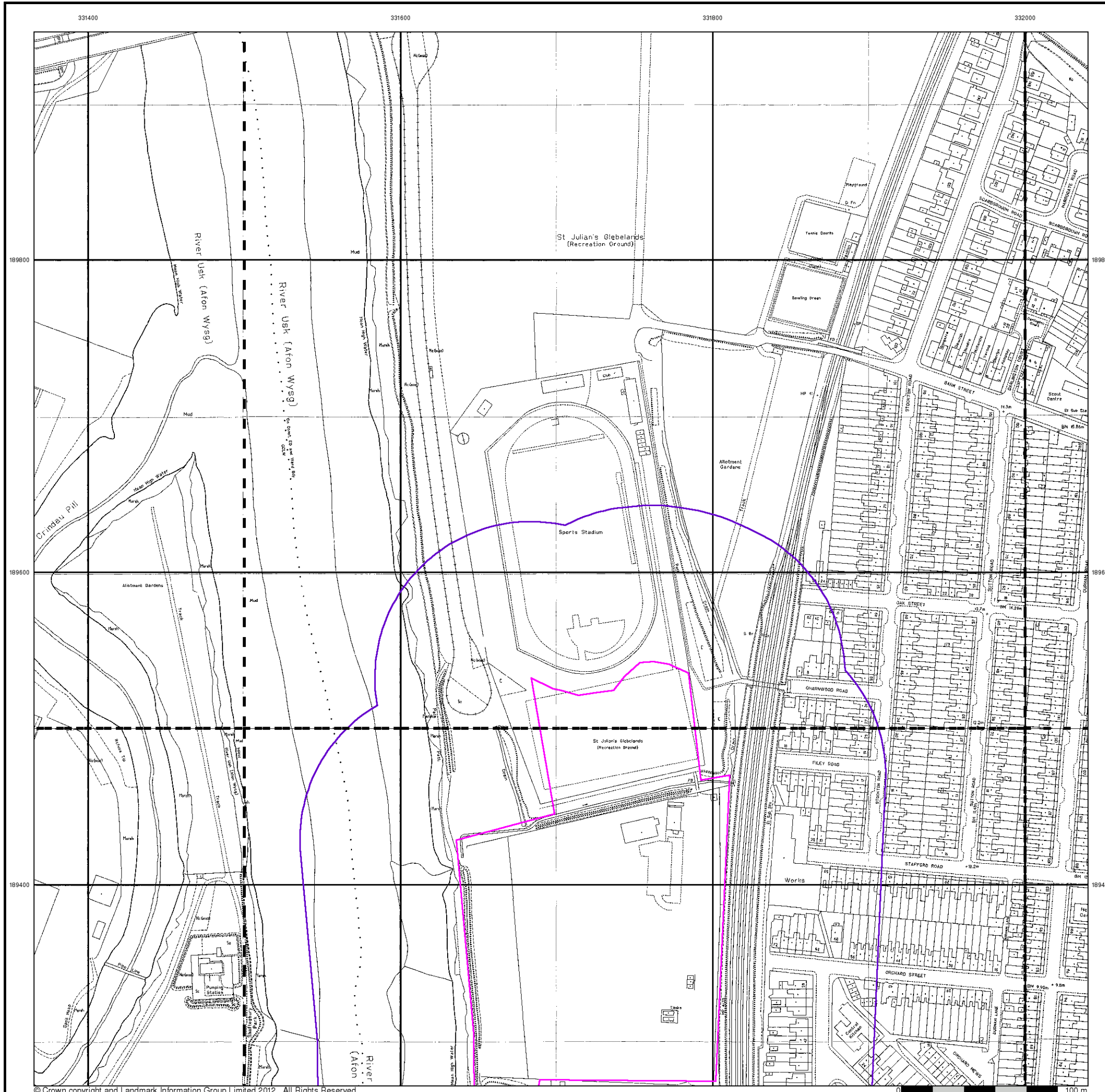
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1994 - 1995

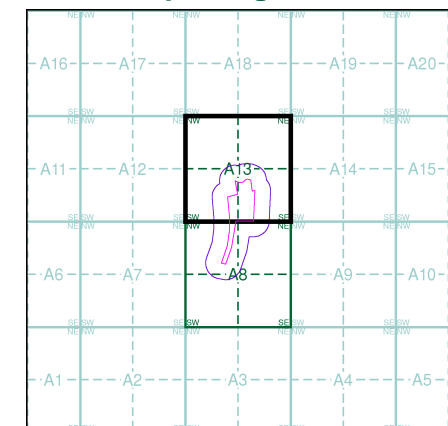
Source map scale - 1:1,250

'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)

ST3 189NW 1994 1:1,250	ST3 189NE 1995 1:1,250	ST3 289NW 1995 1:1,250
ST3 189SW 1994 1:1,250	ST3 189SE 1994 1:1,250	

Historical Map - Segment A13



Order Details

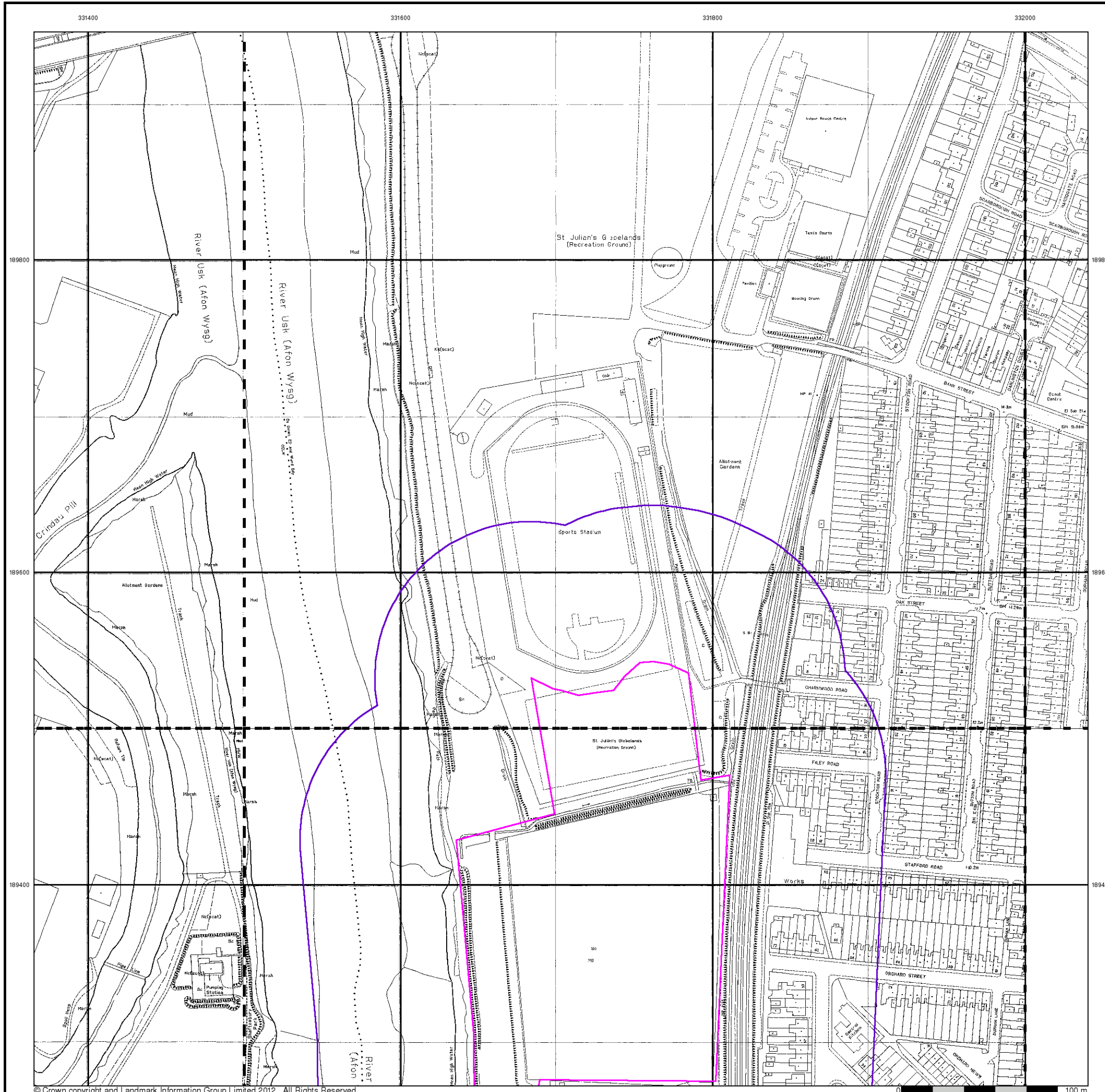
Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 100

Site Details

., Herbert Road, NEWPORT, Gwent, NP19 7BH



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Large-Scale National Grid Data

Published 1995 - 1997

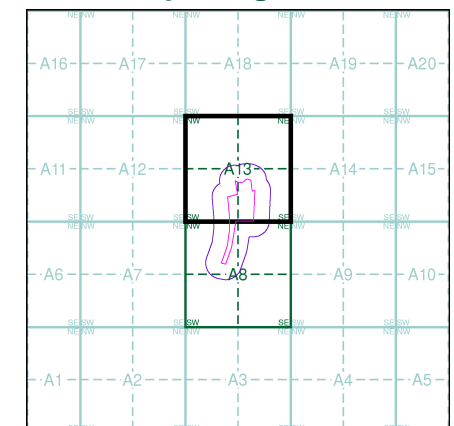
Source map scale - 1:1,250

'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)

ST3189NW 1995 1:1,250	ST3189NE 1995 1:1,250
ST3189SW 1997 1:1,250	

Historical Map - Segment A13



Order Details

Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
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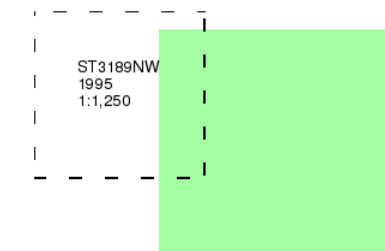
Large-Scale National Grid Data

Published 1995

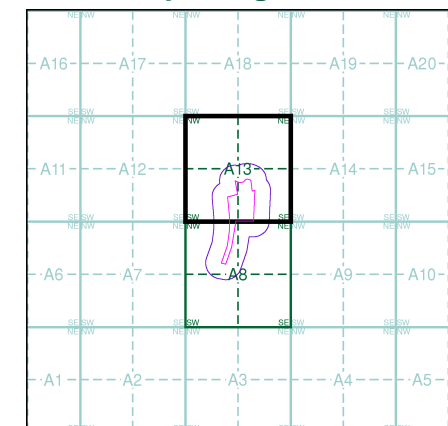
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'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information 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

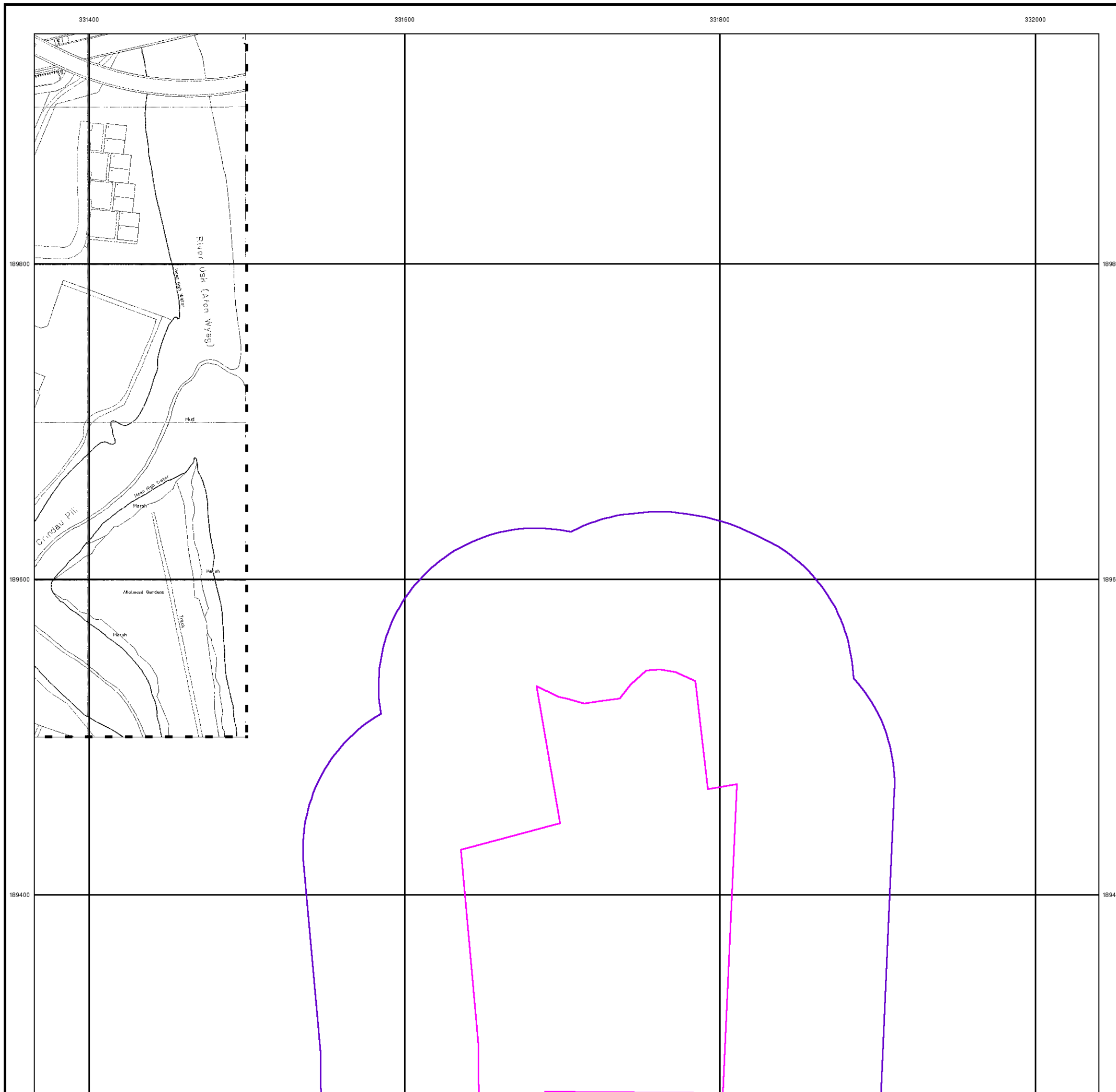
Order Number:	41914630_1_1
Customer Ref:	12044
National Grid Reference:	331690, 189280
Slice:	A
Site Area (Ha):	4.52
Search Buffer (m):	100

Site Details

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



331400

331600

331800

332000

189200

189200

189000

189000

188800

188800

188600

188600



Monmouthshire

Published 1883 - 1884

Source map scale - 1:500

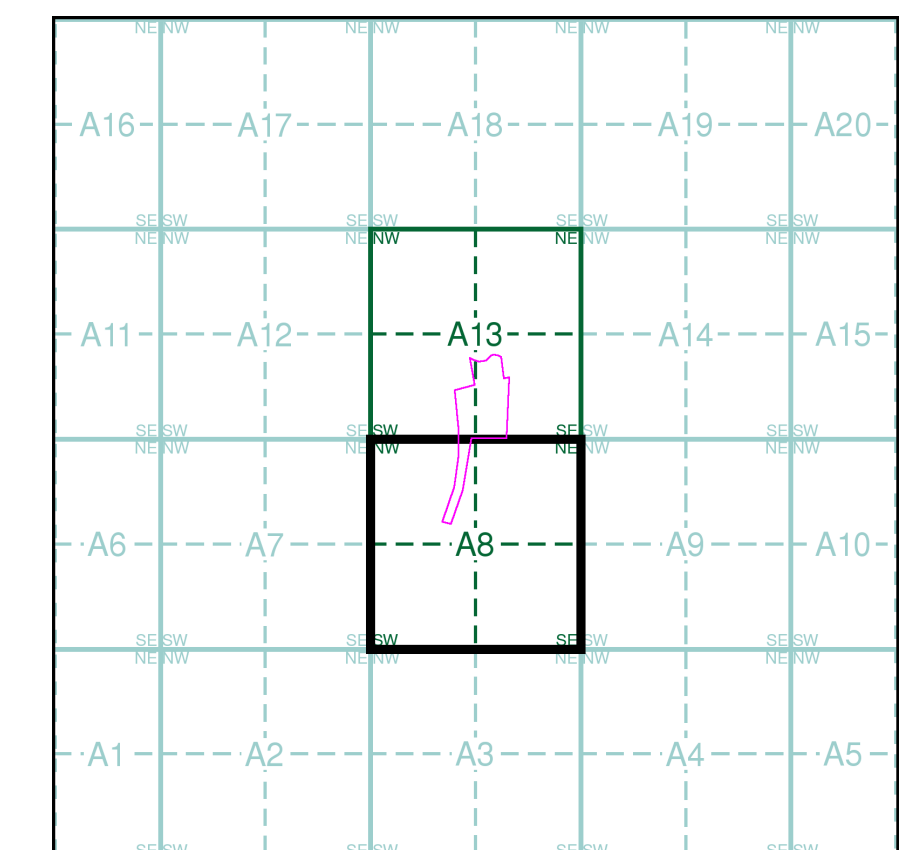
The 1:500 scale Ordnance Survey mapping was introduced in 1855 as a replacement for the 1:528 scale and to compliment the 1:2500 scale that had been implemented in 1853. By 1895, the 1:500 scale covered most towns over a population of about 4000 at the time of survey, although very few towns were mapped 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)

028_16_009 1883 1:500	028_16_010 1884 1:500
028_16_014 1884 1:500	028_16_015 1883 1:500

Historical Town Plan - Segment A8



Order Details

Order Number: 41914630_1_1
 Customer Ref: 12044
 National Grid Reference: 331690, 189280
 Slice: A
 Site Area (Ha): 4.52
 Search Buffer (m): 0

Site Details

., Herbert Road, NEWPORT, Gwent, NP19 7BH



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

ANNEX B
Radon Report



**British
Geological Survey**
NATURAL ENVIRONMENT RESEARCH COUNCIL

GeoReports

**Helen Eddy
Terra Firma Wales Ltd
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Wharfedales Road
Pentwyn
Cardiff
CF38 1AA**

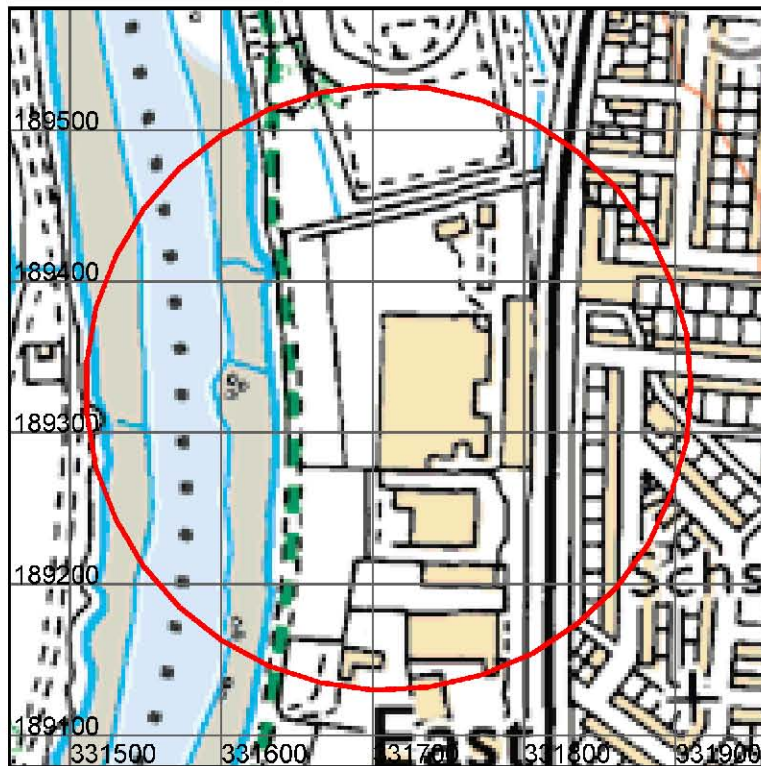
Radon Report: England and Wales

Advisory report on the requirement for radon protective measures in new buildings, conversions and extensions to existing buildings. The report also indicates whether a site is located within a radon Affected Area

Report Id: *GR_205477/1*

Client reference: 12044

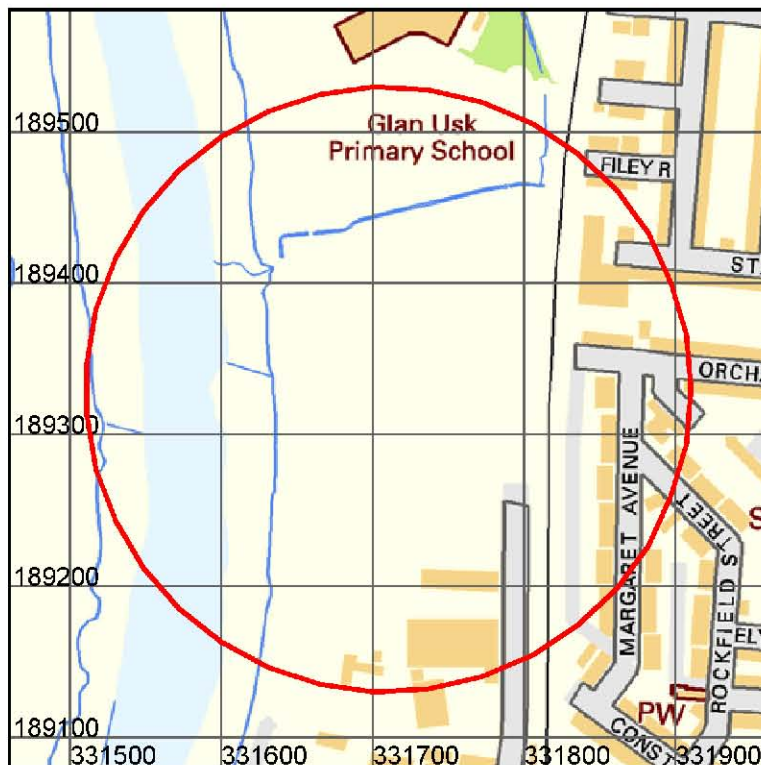
Search location



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Scale: 1:5 000 (1cm = 50 m)

This report describes a site located at National Grid Reference 331710, 189330. Note that for sites of irregular shape, this point may lie outside the site boundary. Where the client has submitted a site plan the assessment will be based on the area given.

Search location indicated in red



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OS Street View: Scale: 1:5 000 (1cm = 50 m)



Radon Report: England and Wales

This is an advisory report on the requirement for radon protective measures in new buildings, conversions and extensions. The report also indicates whether a site is located within a radon Affected Area

Requirement for radon protective measures

The determination below follows advice in *BR211 Radon: Guidance on protective measures for new buildings (2007 edition)*, which also provides guidance on what to do if the result indicates that protective measures are required.

BASIC RADON PROTECTIVE MEASURES ARE REQUIRED FOR THE REPORT AREA.

The BGS is not able to provide advice on the technical specifications of 'basic' and 'full' radon protective measures. This information is detailed in **BRE Report BR211 Radon: guidance on protective measures for new buildings** which may be purchased from brebookshop.com. This report offers guidance on the technical solutions that are required to satisfy Building Regulations requirements.

Technical solutions to radon protection in new build and existing dwellings in radon affected areas are available on the BRE web site at:

<http://www.bre.co.uk/page.jsp?id=1626> and <http://www.bre.co.uk/radon/> and in a range of technical reports available from brebookshop.com; Tel: 01923 664262, email: bookshop@bre.co.uk.

Summary guidance is available on the web at:

<http://www.bre.co.uk/radon/protect.html>.

If you require further information or guidance, you should contact your local authority building control officer or approved inspector.



Radon in existing buildings

Is this property in a radon affected area – **YES**

The answer to the standard enquiry on house purchase known as **CON29 Standard Enquiry of Local Authority 3.13 Radon Gas: Location of the Property in a radon Affected Area** is **YES** this property is in a Radon Affected Area as defined by the Health Protection Agency (HPA).

The estimated probability of the property being above the Action Level for radon is: **5-10% (INTERMEDIATE PROBABILITY)**.

The result informs you of the estimated probability that this particular property is above the Action Level for radon. This does not necessarily mean there is a radon problem in the property. The only way to determine whether it is above or below the Action Level is to carry out a radon measurement within the existing property.

Radon Affected Areas are designated by the HPA. They advise that radon gas should be measured in all properties within Radon Affected Areas.

If you are buying a new build property in a Radon Affected Area, you should ask the builder whether radon protective measures were incorporated in the construction of the property.

If you are buying a currently occupied property in a Radon Affected Area you should ask the present owner whether radon levels have been measured in the property. If they have, ask whether the results were above the Radon Action Level and if so whether remedial measures were installed, radon levels were retested, and that the results of re-testing confirmed the effectiveness of the measures.

In radon affected homes, the problem of radon can usually be tackled with simple, effective and relatively inexpensive measures. These measures are comparable in cost to work such as damp-proofing and timber treatment. You can get practical advice about construction work to reduce radon levels from the Building Control Officer at your local council.

For further information, advice about radon, its health risks and details of how to order the radon test, please contact the HPA Radon Helpline on 01235 822622 or go online at www.ukradon.org or write to Radon Survey, Health Protection Agency, Centre for Radiation, Chemical and Environmental Hazards, Chilton, Didcot, Oxon, OX11 0RQ, email: radon@hpa.org.uk. You can obtain an information pack from the HPA free Radon answerphone on 0800 614529



What is radon?

Radon is a naturally occurring radioactive gas, which is produced by the radioactive decay of radium which, in turn, is derived from the radioactive decay of uranium. Uranium is found in small quantities in all soils and rocks, although the amount varies from place to place. Radon released from rocks and soils is quickly diluted in the atmosphere. Concentrations in the open air are normally very low and do not present a hazard. Radon that enters enclosed spaces such as some buildings (particularly basements), caves, mines, and tunnels may reach high concentrations in some circumstances. The construction method and degree of ventilation will influence radon levels in individual buildings. A person's exposure to radon will also vary according to how particular buildings and spaces are used.

Inhalation of the radioactive decay products of radon gas increases the chance of developing lung cancer. If individuals are exposed to high concentrations for significant periods of time, there may be cause for concern. In order to limit the risk to individuals, the Government has adopted an Action Level for radon in homes of 200 becquerels per cubic metre (Bq m^{-3}). The Government advises householders that, where the radon level exceeds the Action Level, measures should be taken to reduce the concentration.

Radon in workplaces

The Ionising Radiation Regulations, 1999, require employers to take action when radon is present above a defined level in the workplace. Advice may be obtained from your local Health and Safety Executive Area Office or the Environmental Health Department of your local authority. The BRE publishes a guide (BR293): **Radon in the workplace**. BRE publications may be obtained from the BRE Bookshop, Tel: 01923 664262, email: bookshop@bre.co.uk website: www.brebookshop.com



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**Report issued by
BGS Enquiry Service**

ANNEX C
Terra Firma Definitions and Methodologies

A pollutant linkage requires three essential elements:

- (1) A **CONTAMINANT** (hazard) - a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of **controlled waters**
- (2) A **RECEPTOR** (target) - something which could be adversely affected by a contaminant
- (3) A **PATHWAY** - a route or means which either allows the contaminant to cause significant harm to that receptor, or that there is a significant possibility of such harm being caused to the receptor, or that pollution of controlled waters is being or likely to be caused.

The term 'Risk' is widely used in different contexts and situations, but a prescriptive definition is given by the Guidelines for Environmental Risk Assessment and Management (DEFRA *et al*, 2000):

'Risk is a combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequences of the occurrence'.

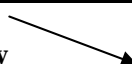
A 'Hazard' is defined as *'a property or situation that in particular circumstances could lead to harm'*.

The classification of consequences and probability and determining the risk category are defined in the following sections.

Table 3.1 Classification of Consequence	
Classification	Definition
Severe	<ul style="list-style-type: none"> • Short term (acute) risk to human health likely to result in significant harm • Short term risk to controlled waters • Catastrophic damage to buildings/structures • Short term risk to an ecosystem or organism within the particular ecosystem
Medium	<ul style="list-style-type: none"> • Chronic damage to human health (long term risk) • Pollution of a sensitive water resource • A significant change in an ecosystem or organism within the ecosystem
Mild	<ul style="list-style-type: none"> • Pollution of non-sensitive water resources • Significant damage to buildings/structures
Negligible	<ul style="list-style-type: none"> • Harm (not necessarily significant) which may result in financial loss • Non permanent health effects to humans (easily prevented by PPE for example) • Easily repairable effects of structural (building) damage

Table 3.2 Classification of Probability	
Classification	Definition
High	<ul style="list-style-type: none"> • There is a complete pollution linkage and an event appears very likely to occur in the short term and is inevitable in the long term. • Evidence of harm to the receptor
Medium	<ul style="list-style-type: none"> • There is a complete pollution linkage which means that it is probable that an event will occur • The event is not inevitable but possible in short term and likely in the long term
Low	<ul style="list-style-type: none"> • There is a complete pollution linkage and circumstances are possible under which an event could occur • It is not certain that an event will occur in the long term, and it is less likely to occur in the short term
Negligible	<ul style="list-style-type: none"> • There is a complete pollution linkage but circumstances are such that it is improbable that an event would occur even in the long term

By comparing the consequences of a risk and the probability of the risk of a pollution linkage, the likely risk category can be determined as shown in **Table 3.3** below.

Table 3.3 Risk Assessment Matrix					
Increasing acceptability 		Consequence			
		Severe	Medium	Mild	Negligible
Probability	High	High	High	Medium / Low	Near zero
	Medium	High	Medium	Low	Near zero
	Low	High / medium	Medium / Low	Low	Near zero
	Negligible	High / medium / Low	Medium / Low	Low	Near zero

High Risk

There is a high probability that severe harm could risk a receptor, or there is evidence that a receptor is being harmed. The risk if realised is likely to result in liability, and urgent investigation or remediation will be required.

Medium Risk

It is probable that harm will arise to a receptor. However it is relatively unlikely that such harm would be severe, or if harm does occur the harm is likely to be relatively mild. Investigation will be required to determine the liability, and some remedial works may be required in the long term.

Low Risk

It is possible that harm may arise to a receptor, but it is likely that the harm would be mild.

Near Zero Risk

There is a very low risk of harm to the receptor. In the event of harm being realised the harm is not likely to be severe.

Methodology

Environmental risk assessment evaluates the risk to receptors via an analysis of the 'source-pathway-receptor' linkage. In order for a risk to be present, there must be a contaminant source capable of causing a health risk, a vulnerable receptor, and a pathway linking the two.

This sort of risk assessment is usually conducted using a tiered approach. Tier 1 consists of a comparison of the analytical results obtained from the site investigation with Soil Guideline Values (SGV's) specific to the type of development obtained from The Environment Agency Contaminated Land Exposure Assessment (CLEA) Guidelines.

Where SGV values are not available reference has been made to Generic Assessment Criteria (GAC) provided by Land Quality Management Limited (LQM) and the Chartered Institute of Environmental Health (CIEH).

At each tier, the amount and detail of investigation work increases as more site-specific data are needed to refine the characterisation of the site. Conversely, as site conditions are better understood, a more site-specific remediation strategy can be determined.

Should Tier 1 levels be exceeded, a choice is made either to remediate the site to conservative Tier 1 levels, or proceed to Tier 2. Tier 2 makes use of site-specific data to evaluate acceptable concentrations of chemicals for the particular conditions present at the site.

For Tier 1, the site itself is considered to be the receptor. Therefore, attenuation of contaminants between the source and receptor is not considered.

All soil test results have therefore been compared to thresholds for residential development.

A summary of the soil and groundwater chemical test results, which include the regulatory guidelines used in the Tier 1 assessment, are given in the tables on the following pages.

ANNEX D
Trial Pit Logs

Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
06/11/2012



Location: Newport

Dimensions: 2.20m
Depth 3.00m

Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						MADE GROUND. Soft to firm brown organic rich slightly gravelly clay with occasional cobbles of angular brick and concrete. Occasional boulders of angular concrete. Gravel is fine to coarse angular concrete and brick.
			2.50			Firm grey mottled CLAY
			3.00			Trialpit Complete at 3.00 m

Remarks: Unstable

Groundwater: Groundwater inflow at 2.50m



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
06/11/2012

Location: Newport

Dimensions: 2.20m

Scale
1:25



Client: Greenhill Construction

Depth
2.50m

0.70m



Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			0.90			MADE GROUND. Soft to firm brown organic rich slightly gravelly clay with occasional cobbles of angular brick and concrete. Occasional boulders of angular concrete. Gravel is fine to coarse of angular concrete and brick.	
			2.50			Firm to stiff grey and red CLAY with occasional organic matter	1
						Trialpit Complete at 2.50 m	2
							3
							4

Remarks: Stable

Groundwater: Groundwater inflow at 2.50m



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
06/11/2012

Location: Newport

Dimensions: 2.40m



Depth
1.80m



Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.20						MADE GROUND. Long grass over soft brown organic rich clay with many rootlets and roots
1.80						Firm becoming soft to firm at 1.0m grey and red brown CLAY
						Trialpit Complete at 1.80 m

Remarks: Stable

Groundwater: Groundwater inflow at 1.80m



Project Name
Herbert Road


Project No.
12032

Co-ords: -
Level: -

Date
06/11/2012

Location: Newport


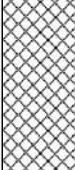

Dimensions: 2.20m
Depth 2.00m 0.70m



Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			0.20			MADE GROUND. Vegetation over soft brown organic rich clay with many rootlets and roots.	
						MADE GROUND. Soft to firm brown organic rich clay	
			0.80			Firm grey mottled CLAY	1
			2.00			Trialpit Complete at 2.00 m	2
							3
							4

Remarks: Stable

Groundwater: Groundwater seepage from clay beneath 0.80m



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
06/11/2012

Location: Newport

Dimensions: 2.20m
Depth 2.50m 0.70m

Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.20						MADE GROUND. Grass over soft red brown slightly gravelly clay with many rootlets. Gravel is fine to coarse of angular mudstone. Geosynthetic membrane at 0.70m
0.70						MADE GROUND. Dense grey very gravelly sand with some cobbles of angular sandstone.
2.50						MADE GROUND. Loose to medium dense brown mottled gravelly sand. Some litter, bottles, jars and ceramic. Gravel is fine to coarse of angular slate, mudstone and sandstone. Occasional cobble of angular brick.
Trialpit Complete at 2.50 m						

Remarks: Stable

Groundwater: Standing groundwater at 2.30m



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
06/11/2012


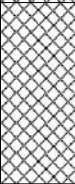



Location: Newport

Dimensions: 2.20m
Depth 2.70m 0.70m

Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			0.20			MADE GROUND. Grass over soft red brown slightly gravelly clay with many rootlets. Gravel is fine to coarse of angular mudstone.	
			0.80			MADE GROUND. Dense grey very gravelly sand with some cobbles of angular sandstone	
			0.80			MADE GROUND. Firm black very gravelly clay with some cobbles of angular concrete and brick. Many litter including bottles, rubber, plastic and ceramic. Gravel is fine to coarse of angular brick, concrete and vitreous slag.	1
			2.50			Firm grey mottled CLAY	2
			2.70			Trialpit Complete at 2.70 m	3
							4

Remarks: Stable

Groundwater: Dry



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

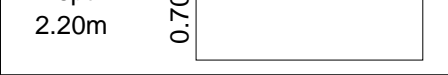
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06/11/2012

Location: Newport

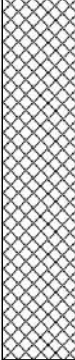
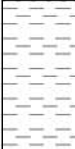
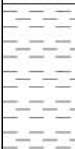
Dimensions: 2.20m
Depth 2.20m

Scale
1:25

Client: Greenhill Construction



Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			1.20			MADE GROUND. Soft to firm organic rich gravelly clay with occasional cobbles of angular concrete and brick. Gravel is fine to coarse of angular brick, concrete, sandstone and mudstone. Occasional litter	1
			1.70			Firm brown mottled CLAY	
			2.20			Firm grey mottled CLAY	2
						----- Trialpit Complete at 2.20 m	3
							4

Remarks: Stable

Groundwater: Groundwater inflow at 1.20m



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
06/11/2012

Location: Newport

Dimensions: 2.20m

Depth
2.50m

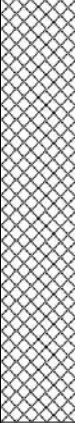


0.70m



Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
						MADE GROUND. Soft to firm black organic rich sandy gravelly clay. Gravel is fine to coarse of angular brick and concrete. Occasional cobbles of angular brick and concrete. Occasional wood fragments and ash.	1
			1.40			Firm brown mottled CLAY	
			1.80			Firm grey mottled CLAY	2
			2.50			Trialpit Complete at 2.50 m	3
							4

Remarks: Stable

Groundwater: Groundwater inflow at 1.80m



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012




Location: Newport

Dimensions: 2.50m
Depth 2.50m

Scale
1:25

Client: Greenhill Construction

Logged By

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						MADE GROUND. Soft to firm brown organic rich gravelly clay with occasional cobbles and boulders of angular concrete and brick. Gravel is fine to coarse of angular brick, concrete, sandstone and mudstone. Occasional litter, wood and peat.
			1.60			Firm brown mottled CLAY with occasional relic plant fragments
			2.00			Firm grey mottled CLAY
			2.50			Trialpit Complete at 2.50 m

Remarks: Stable

Groundwater: Slow groundwater seepage at 2.40m below ground level



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012

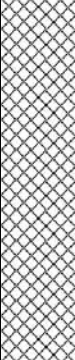


Location: Newport

Dimensions: 2.50m
Depth 2.30m 0.70m

Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			1.20			MADE GROUND. Soft to firm brown organic rich gravelly clay with occasional cobbles and boulders of angular concrete and brick. Gravel is fine to coarse of angular brick, concrete, sandstone and mudstone. Occasional litter, wood and peat.	1
			1.90			Firm brown mottled CLAY	
			2.30			Firm grey mottled CLAY	2
						----- Trialpit Complete at 2.30 m	3
							4

Remarks: Stable

Groundwater: Slow groundwater seepage at 1.90m



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012

Location: Newport

Dimensions: 2.50m

Scale
1:25

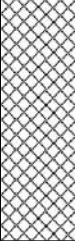


Client: Greenhill Construction

Depth
2.00m

0.70m



Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			0.80			MADE GROUND. Dense mottled sandy gravel of angular concrete and brick. Many cobbles of angular brick and concrete. Occasional ash.	
			1.00			Firm brown mottled CLAY	1
						Firm grey mottled CLAY	
			2.00			Trialpit Complete at 2.00 m	2
							3
							4

Remarks: Highly unstable

Groundwater: Groundwater inflow at 1.60m below ground level



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012

Location: Newport

Dimensions: 2.50m

Scale
1:25

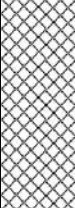

Client: Greenhill Construction

Depth
2.20m

0.70m



Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			0.70			MADE GROUND. Gravel over dense dark grey clayey sandy gravel with some cobbles of angular brick and concrete. Gravel is fine to coarse of angular brick and concrete. Occasional boulder of angular concrete.	
						Firm grey mottled CLAY	1
			2.00			Trialpit Complete at 2.20 m	2
							3
							4

Remarks: Slightly unstable

Groundwater: Groundwater seepage at 2.20m below ground level



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012

Location: Newport

Dimensions: 2.50m
Depth 2.10m

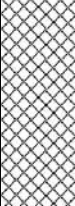


0.70m



Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			0.70			MADE GROUND. Gravel over dense dark grey clayey sandy gravel with some cobbles of angular brick and concrete. Gravel is fine to coarse of angular brick and concrete. Occasional boulder of angular concrete.	
			1.20			MADE GROUND. Firm to stiff brown organic rich clay (possibly reworked)	1
			2.10			Firm grey mottled CLAY	2
						Trialpit Complete at 2.10 m	3
							4

Remarks: Stable

Groundwater: Groundwater inflow from 1.20m below ground level



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012


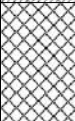


Location: Newport

Dimensions: 2.50m
Depth 2.20m 0.70m

Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.20			TOPSOIL. Long grass over soft brown organic rich clay with many rootlets and roots.
			0.60			MADE GROUND. Firm red brown and grey clay with occasional cobble of angular brick
			1.20			Firm red brown CLAY
			2.20			Firm grey mottled CLAY
Trialpit Complete at 2.20 m						

Remarks: Stable

Groundwater: Groundwater inflow from 1.20m below ground level



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012

Location: Newport

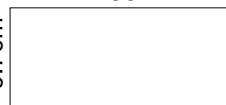
Dimensions: 2.50m

Scale
1:25





Client: Greenhill Construction

Depth
2.00m

0.70m



Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			0.20			TOPSOIL. Long grass over soft brown organic rich clay with many rootlets and roots	
						Soft dark brown organic rich CLAY	
			0.90			Firm grey mottled CLAY	1
			2.00			Trialpit Complete at 2.00 m	2
							3
							4

Remarks: Stable

Groundwater: Slow groundwater seepage at 1.80m below ground level



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012

Location: Newport

Dimensions: 2.50m

Scale
1:25



Client: Greenhill Construction

Depth
2.00m

0.70m



Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.30						TOPSOIL. Long grass over soft brown organic rich clay with many rootlets and roots
2.00						Firm grey mottled CLAY
						Trialpit Complete at 2.00 m

Remarks: Stable

Groundwater: Slow groundwater seepage at 1.80m below ground level



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012





Location: Newport

Dimensions: 2.50m
Depth 2.00m

Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.20			TOPSOIL. Long grass over soft brown organic rich clay with many rootlets and roots
			0.40			MADE GROUND. Dense brown sandy gravel of angular fine to coarse limestone. Some cobbles of angular limestone.
			0.80			MADE GROUND. Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to coarse of angular concrete and brick.
			2.00			Firm grey mottled CLAY
Trialpit Complete at 2.00 m						

Remarks: Stable

Groundwater: Groundwater inflow from 0.80m below ground level



Project Name
Herbert Road

Project No.
12032

Co-ords: -
Level: -

Date
07/11/2012




Location: Newport

Dimensions: 2.50m
Depth 2.00m

Scale
1:25

Client: Greenhill Construction

Logged By
MW

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.20			TOPSOIL. Long grass over soft brown organic rich clay with many rootlets and roots
			0.80			Firm grey and brown CLAY
			2.00			Firm grey mottled CLAY
						Trialpit Complete at 2.00 m
1						
2						
3						
4						

Remarks: Stable

Groundwater: Slow groundwater seepage from 1.80m below ground level



ANNEX E
Cable Percussive Borehole Logs

Project Name
 Herbert Road

Project No.
 12032

Co-ords: -

Hole Type
 Cable

Location: Newport

Level: -

Scale
 1:50

Client: Greenhill Construction

Dates: 31/10/2012-01/11/2012



Logged By
 MW

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-1.20	B				MADE GROUND. Gravel over loose dark grey clayey sandy gravel with some cobbles of angular brick and concrete. Gravel is fine to coarse of angular brick and concrete. Occasional boulders of angular concrete.	
		1.20	CPT	N=3				
		1.20-1.70	B	N=3 (3,2,2,1,0,0)	1.70			
		2.00	SPT	N=1	2.10		Very soft grey slightly gravelly CLAY with occasional cobbles of angular brick and concrete. Gravel is fine to coarse of angular concrete and brick.	
		2.45-3.00	B				Very soft blue CLAY with occasional remnant root fragments.	
		3.00	SPT	N=2				
		3.45-4.00	B	N=2 (1,0,0,1,0,1)	3.60		Very soft grey CLAY	
		4.00	SPT	N=5	3.90		PEAT	
		4.45-5.00	B	N=5 (1,1,1,2,1,1)				
		5.00	SPT	N=7				
		4.45-5.00	B	N=7 (1,1,1,2,2,2)				
		6.20-6.50	B		6.20		Very loose red brown silty SAND	
		6.50	SPT	N=0				
		6.20-6.50	B	N=0 (1,0,0,0,0,0)	7.00		Very soft red sandy SILT	
		6.95-8.00	B					
		8.00	SPT	N=1				
		8.00-8.50	B	N=1 (1,0,0,0,0,1)				
		8.80-9.00	B		8.80		Very stiff red brown and grey gravelly CLAY. Gravel is fine to coarse of angular mudstone and mudstone lithorelicts.	
		9.00	SPT	N=33				
		8.80-9.00	B	N=33 (1,1,5,8,9,11)				

Continued next sheet

Remarks:

Project Name Herbert Road	Project No. 12032	Co-ords: -	Hole Type Cable
Location: Newport		Level: -	Scale 1:50
Client: Greenhill Construction		Dates: 02/11/2012-05/11/2012	Logged By MW

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-1.20	B		1.90		MADE GROUND. Sub-base over dense dark grey clayey sandy gravel with some cobbles of angular brick and concrete. Gravel is fine to coarse of brick and concrete. Occasional boulder of angular concrete.	1	
		1.20	CPT	N=9					
		1.20-1.70	B	N=9 (4,5,3,2,2,2)					
		1.70-2.00	B		5.20		Soft becoming very soft blue grey CLAY	2	
		2.00	CPT	N=7					
		2.00-2.50	B	N=7 (1,2,2,3,1,1)					
		2.45-3.00	B						
		3.00	SPT	N=7				3	
				N=7 (1,1,1,2,2,2)					
		3.50-4.00	B						
		4.00	SPT	N=2				4	
				N=2 (1,1,1,0,0,1)					
		4.45-5.00	B						
		5.00	SPT	N=3				5	
				N=3 (1,0,1,0,1,1)					
		5.45-6.50	B						
		6.50	SPT	N=3				6	
				N=3 (1,1,0,0,1,2)					
		6.95-8.00	B						
		8.00	SPT	N=6				7	
				N=6 (1,2,2,2,1,1)					
		8.45-9.50	B						
		9.50	SPT	N=8				8	
				N=8 (1,1,2,2,2,2)					
			Type	Results				9	

Continued next sheet

Remarks:

Project Name
Herbert Road

Project No.
12032

Co-ords: -

Hole Type
Cable

Location: Newport

Level: -

Scale
1:50

Client: Greenhill Construction

Dates: 02/11/2012-05/11/2012

Logged By
MW

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
							Very soft to soft blue grey CLAY with occasional peat bands	
		10.30-11.00	B		10.30		Stiff becoming very stiff red brown and grey gravelly CLAY. Gravel is fine to coarse of angular mudstone.	
		11.00	SPT	N=29 N=29 (5,6,6,7,8,8)				
		11.60-12.50	B					
		12.50	SPT	50/245mm 245mm (2,4,7,11,17,15)	12.70 12.90		Very weak red brown and grey MUDSTONE	
							End of Borehole at 12.90 m	

Remarks:

Project Name
 Herbert Road

Project No.
 12032

Co-ords: -

Hole Type
 Cable

Location: Newport

Level: -

Scale
 1:50

Client: Greenhill Construction

Dates: 06/11/2012-07/11/2012

Logged By
 MW

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-1.00	B		0.20		TOPSOIL. Grass over soft red brown slightly gravelly clay with many rootlets. Gravel is fine to coarse of angular mudstone.	
		1.00-1.50	B	N=4 (2,2,2,1,1,0)	0.70		MADE GROUND. Dense grey very gravelly sand with some cobbles of angular sandstone.	
		2.00-2.50	B	N=1 (1,0,0,0,1,0)			MADE GROUND. Very loose brown mottled gravelly sand. Some litter including bottles, jars and ceramic. Gravel is fine to coarse of angular slate, mudstone, brick and sandstone. Occasional cobble of brick.	
		3.00-3.50	B	N=2 (1,1,0,1,0,1)	3.30			
		3.80-4.00	B	N=7 (1,1,1,2,2,2)			Soft becoming very soft blue grey CLAY	
		4.45-5.00	B	N=2 (1,0,0,1,0,1)				
		5.45-6.50	B	N=1 (1,0,0,0,0,1)				
		6.95-8.00	B	N=4 (1,2,1,1,2,0)	7.10		Very soft grey and dark brown silty PEAT	
		8.45-8.80	B		8.60		Dense grey sand and gravel of fine to coarse angular sandstone	
		8.80-9.50	B					
		9.50-10.00	B	N=34 (4,6,5,6,11,12)	9.70			

Continued next sheet

Remarks:

Project Name Herbert Road	Project No. 12032	Co-ords: -	Hole Type Cable
Location: Newport		Level: -	Scale 1:50
Client: Greenhill Construction		Dates: 07/11/2012-08/11/2012	Logged By MW

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.60	B		0.20		TOPSOIL. Soft brown organic rich clay		
							MADE GROUND. Stiff brown clay		
		0.60-1.20	B		0.60		MADE GROUND. Firm black very gravelly clay with some cobbles of angular concrete and brick. Many bottles, rubber, plastic, ceramic and litter. Gravel of fine to coarse angular brick, concrete, and vitreous slag.	1	
		1.20	CPT	N=13 N=13 (2,5,4,4,3,2)					
		1.20-2.00	B						
		2.00	SPT	N=10 N=10 (1,2,2,2,3,3)	2.10		Firm becoming very soft grey CLAY	2	
		2.00-3.00	B						
		3.00	SPT	N=9 N=9 (2,1,2,2,2,3)				3	
		3.00-4.50	B						
		4.00	SPT	N=5 N=5 (1,1,1,1,1,2)				4	
		4.50	SPT	N=4 N=4 (1,1,1,1,1,1)	4.50		Very soft dark brown peaty SILT/CLAY	5	
		4.50-5.30	B						
		5.30	SPT	N=2 N=2 (1,0,0,1,0,1)	5.30		Very soft grey CLAY	6	
		5.30-6.80	B						
		6.80	SPT	N=18 N=18 (1,2,4,4,4,6)	6.80		Stiff red brown and grey gravelly CLAY. Gravel is fine to coarse of angular mudstone and mudstone lithorelicts.	7	
		6.80-8.30	B					8	
		8.30	CPT	N=28 N=28 (5,9,6,5,6,11)				9	
		8.30-9.50	B						
		9.50	CPT	50/237mm 237mm (7,10,10,13,15,12)	9.50		Very weak red brown and grey MUDSTONE		

Continued next sheet

Remarks:



Project Name
 Herbert Road

Project No.
 12032

Co-ords: -

Hole Type
 Cable

Location: Newport

Level: -

Scale
 1:50

Client: Greenhill Construction

Dates: 07/11/2012-08/11/2012

Logged By
 MW

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-1.00	B				MADE GROUND. Soft brown organic rich gravelly clay with occasional cobbles of angular concrete and brick. Gravel is fine to coarse of angular brick, concrete, sandstone and mudstone. Occasional litter.	1	
		1.20	CPT	N=6	1.60		Soft brown CLAY		
		1.20-1.70	B	N=6 (1,1,2,3,1,0)					
		2.00	SPT	N=5	2.70		Very soft grey blue CLAY	2	
		2.45-2.70	B	N=5 (1,2,2,1,2,0)					
		2.70-3.00	B						
		3.00	SPT	N=3	6.20		Soft grey sandy SILT	3	
		3.45-4.00	B	N=3 (1,0,1,0,1,1)					
		4.00	SPT	N=2					
		4.45-5.00	B	N=2 (1,1,1,0,0,1)					
		5.00	SPT	N=3	9.10		Firm becoming stiff red brown and grey gravelly CLAY. Gravel is fine to coarse of angular mudstone.	5	
		6.20-6.50	B	N=3 (1,1,2,0,0,1)					
		6.50	SPT	N=5					
		6.95-8.00	B	N=5 (2,2,1,2,0,2)	9.10		Firm becoming stiff red brown and grey gravelly CLAY. Gravel is fine to coarse of angular mudstone.	6	
		8.00	SPT	N=6					
		8.45-9.10	B	N=6 (1,1,1,1,2,2)					
		9.10-9.50	B	N=6 (1,1,1,1,2,2)					
		9.50	CPT	N=20	9.10		Firm becoming stiff red brown and grey gravelly CLAY. Gravel is fine to coarse of angular mudstone.	8	
		9.50-10.00	B	N=20 (2,3,4,4,5,7)					
			Type	Results				9	

Continued next sheet

Remarks:



Project Name
Herbert Road

Project No.
12032

Co-ords: -

Hole Type
Cable

Location: Newport

Level: -

Scale
1:50

Client: Greenhill Construction

Dates: 07/11/2012-08/11/2012

Logged By
MW

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		11.00 11.00-11.40	CPT B	50/285mm 285mm (6,6,9,12,14,15)	11.10 11.40		Firm becoming stiff red brown and grey gravelly CLAY. Gravel is fine to coarse of angular mudstone.	11	
							Very weak red brown and grey MUDSTONE		
							End of Borehole at 11.40 m	12	
								13	
								14	
								15	
								16	
								17	
								18	
								19	

Remarks:

Project Name: Herbert Road Project No.: 12032 Co-ords: - Hole Type: Cable

Location: Newport Level: - Scale: 1:50

Client: Greenhill Construction Dates: 08/11/2012-09/11/2012 Logged By: MW

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	B		0.30		TOPSOIL. Soft brown organic rich clay with many rootlets and roots.	
		0.30-1.20	B		0.70		MADE GROUND. Dense grey and brown gravel with some cobbles of angular brick and concrete. Gravel is fine to coarse of angular brick and concrete.	
		1.20	SPT	N=2 N=2 (1,0,0,0,1,1)			Very soft grey CLAY	
		1.20-2.00	B					
		2.00	SPT	N=2 N=2 (1,1,0,1,0,1)			Very soft grey CLAY	
		2.00-3.50	B					
		3.00	SPT	N=3 N=3 (1,0,0,1,1,1)			Very soft PEAT	
		3.50	SPT	N=4 N=4 (1,0,1,1,1,1)	3.50			
		3.50-4.10	B		4.10		Very soft grey CLAY	
		4.10-5.00	B				Medium dense grey SAND and GRAVEL of fine to coarse angular sandstone	
		5.00	SPT	N=10 N=10 (1,3,2,2,3,3)	5.00			
		5.00-6.00	B				Firm becoming stiff red brown grey gravelly CLAY. Gravel is fine to coarse of angular mudstone.	
		6.00	SPT	N=13 N=13 (2,2,3,3,3,4)	5.90			
		6.00-7.00	B				Firm becoming stiff red brown grey gravelly CLAY. Gravel is fine to coarse of angular mudstone.	
		7.00	SPT	N=24 N=24 (4,6,5,7,6,6)				
		7.00-9.00	B				Firm becoming stiff red brown grey gravelly CLAY. Gravel is fine to coarse of angular mudstone.	
		8.50	SPT	50/209mm 209mm (9,11,15,19,16)				
		9.00	CPT	N=38 N=38 (8,10,15,8,7,8)				
		9.00-10.00	B					

Continued next sheet

Remarks:



Project Name
Herbert Road

Project No.
12032

Co-ords: -

Hole Type
Cable

Location: Newport



Level: -

Scale
1:50

Client: Greenhill Construction

Dates: 08/11/2012-09/11/2012

Logged By
MW

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.00	CPT	50/225mm	10.00			Very weak red brown and grey MUDSTONE
		10.00-10.30	B	225mm (10,16,16,17,17)	10.30			
								End of Borehole at 10.30 m
								11
								12
								13
								14
								15
								16
								17
								18
								19

Remarks:

ANNEX F
Windowless Sample Borehole Logs

Project Name
Herbert Road

Project No.
12032

Co-ords: -

Hole Type
WLS

Location: Newport

Level: -

Scale
1:50

Client: Greenhill Construction

Dates: 21/01/2013

Logged By

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20		TOPSOIL. Grass over soft red brown slightly gravelly clay with many rootlets. Gravel is fine to coarse of angular mudstone.		
					0.70		MADE GROUND. Dense grey very gravelly sand with some cobbles of angular sandstone.		
							MADE GROUND. Very loose brown mottled gravelly sand. Some litter including bottles, jobs and ceramic. Gravel is fine to coarse of angular slate, mudstone, brick and sandstone. Occasional cobbles of angular brick.	1	
								2	
					3.00		End of Borehole at 3.00 m	3	
								4	
								5	
								6	
								7	
								8	
								9	
								10	

Remarks:



Project Name
Herbert Road

Project No.
12032

Co-ords: -

Hole Type
WLS

Location: Newport

Level: -

Scale
1:50

Client: Greenhill Construction

Dates: 21/01/2013

Logged By

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20		TOPSOIL. Grass over soft red brown slightly gravelly clay with many rootlets. Gravel is fine to coarse of angular mudstone.		
					0.60		MADE GROUND. Stiff brown clay		
							MADE GROUND. Very loose brown mottled gravelly sand. Some litter including bottles, jobs and ceramic. Gravel is fine to coarse of angular slate, mudstone, brick and sandstone. Occasional cobbles of angular brick.	1	
					2.50		Soft blue grey CLAY	2	
					3.00		End of Borehole at 3.00 m	3	
								4	
								5	
								6	
								7	
								8	
								9	
								10	

Remarks:



Project Name
Herbert Road

Project No.
12032

Co-ords: -

Hole Type
WLS

Location: Newport

Level: -

Scale
1:50

Client: Greenhill Construction

Dates: 21/01/2013

Logged By

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20		TOPSOIL. Grass over soft red brown slightly gravelly clay with many rootlets. Gravel is fine to coarse of angular mudstone.		
					0.60		MADE GROUND. Stiff brown clay		
					2.20		MADE GROUND. Firm black very gravelly clay with some cobbles of angular concrete and brick. Many bottles, rubber, plastic, ceramic and litter. Gravel of fine to coarse of angular brick, concrete and ceramic and vitreous slag.	1	
					3.00		Soft blue grey CLAY	2	
							End of Borehole at 3.00 m	3	
								4	
								5	
								6	
								7	
								8	
								9	
								10	

Remarks:



ANNEX G
Laboratory Soil & Groundwater Chemical Test Results



2139

Certificate of Analysis



Date: 11/01/2013

Certificate Number: 12-71357-2

Client: Terra Firma (Wales) Ltd
5 Deryn Court
Wharfdale Road
Pentwyn
Cardiff
CF23 7HB

Our Reference: 12-71357-2

Client Reference:

Contract Title: Herbert Road

Description: 15 soil samples

Date Received: 09 November 2012

Date Started: 09 November 2012

Date Completed: 28 November 2012

Test Procedures: Identified by prefix DETSn (details on request), Asbestos Analysis (DETS 082).

Notes: **This report supersedes 12-71357-1, additional testing carried out**
Observations and interpretations are outside the scope of UKAS accreditation

Approved By: 
Rob Brown, Business Manager

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Information in Support of the Analytical Results

Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample.

Key

- * Denotes test not included in laboratory scope of accreditation
- # Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo
- \$ Denotes tests completed by an approved subcontractor
- I/S Denotes insufficient sample to carry out test
- U/S Denotes that the sample is not suitable for testing

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month

Liquids - 2 weeks

Asbestos (test portion) - 6 months

Summary of Chemical Analysis

Matrix Descriptions

Our Ref: 12-71357-2

Client Ref:

Contract Title: Herbert Road

Sample ID	Depth	Sample No	Completed	Matrix Description
TP2	0.90	460753	28/11/2012	Dark brown gravelly sandy CLAY
TP4	0.70	460754	28/11/2012	Dark brown gravelly sandy CLAY
TP5	1.30	460755	28/11/2012	Dark brown clayey gravelly SAND
TP6	0.60	460756	28/11/2012	Brown clayey gravelly SAND
TP6	1.80	460757	28/11/2012	Dark brown gravelly sandy CLAY with odd rootlets
TP7	0.20	460758	28/11/2012	Dark brown gravelly sandy CLAY with odd rootlets
TP8	0.50	460759	28/11/2012	Dark brown clayey gravelly SAND
TP9	1.00	460760	28/11/2012	Dark brown gravelly sandy CLAY
TP10	0.80	460761	28/11/2012	Dark brown gravelly sandy CLAY
TP12	0.40	460762	28/11/2012	Brown very gravelly SAND
TP13	0.60	460763	28/11/2012	Brown very gravelly SAND
TP14	0.40	460764	28/11/2012	Dark brown clayey gravelly SAND
TP15	0.40	460765	28/11/2012	Brown gravelly sandy CLAY with odd rootlets
TP17	0.15	460766	28/11/2012	Dark brown gravelly sandy CLAY with odd rootlets
TP18	0.50	460767	28/11/2012	Dark brown clayey gravelly SAND with odd rootlets

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-71357-2

Client Ref:

Contract Title: Herbert Road

				Lab No.	460753	460754	460755
				Sample ID	TP2	TP4	TP5
				Depth	0.90	0.70	1.30
				Sample Ref			
				Sample Type			
				Sampling Date	06/11/2012	06/11/2012	06/11/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Arsenic	mg/kg	DETS 042#	0.2		21	26	40
Cadmium	mg/kg	DETS 042#	0.1		1.0	0.8	1.1
Chromium III	mg/kg	DETS 042*	0.15		41	42	35
Chromium	mg/kg	DETS 042#	0.15		41	42	35
Hexavalent Chromium	mg/kg	DETSC 2204*	1		< 1.0	< 1.0	< 1.0
Copper	mg/kg	DETS 042#	0.2		230	44	950
Lead	mg/kg	DETS 042#	0.3		110	100	290
Mercury	mg/kg	DETSC 2325	0.05		0.45	0.39	0.41
Nickel	mg/kg	DETS 042#	1		45	31	69
Selenium	mg/kg	DETS 042#	0.5		0.6	< 0.5	0.9
Zinc	mg/kg	DETS 042#	1		250	150	410
Cyanide total	mg/kg	DETSC 2130#	0.1		10	1.2	2.1
Organic matter	%	DETSC 2002#	0.1		7.5	8.6	23
Total Sulphate as SO4	%	DETSC 2321#	0.01		0.10	0.09	0.24
Sulphate Aqueous Extract as SO4	mg/l	DETSC 2076#	10				
pH		DETSC 2008#			8.9	8.8	8.2
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5		< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2		< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5		< 1.5	< 1.5	1.7
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4		< 3.4	< 3.4	7.9
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9		< 0.9	< 0.9	< 0.9
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5		< 0.5	< 0.5	< 0.5
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6		1.8	< 0.6	< 0.6
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4		5.9	< 1.4	2.0
Aliphatic C5-C35	mg/kg	DETSC 3072*	10		< 10	< 10	< 10
Aromatic C5-C35	mg/kg	DETSC 3072*	10		< 10	< 10	< 10
TPH Ali/Aro	mg/kg	DETSC 3072*	10		< 10	< 10	12

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-71357-2

Client Ref:

Contract Title: Herbert Road

				Lab No.	460753	460754	460755
				Sample ID	TP2	TP4	TP5
				Depth	0.90	0.70	1.30
				Sample Ref			
				Sample Type			
				Sampling Date	06/11/2012	06/11/2012	06/11/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Acenaphthene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1		
Acenaphthylene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1		
Anthracene	mg/kg	DETSC 3301	0.1	0.2	0.1		
Benzo(a)anthracene	mg/kg	DETSC 3301	0.1	0.8	0.8		
Benzo(a)pyrene	mg/kg	DETSC 3301	0.1	0.8	0.9		
Benzo(b)fluoranthene	mg/kg	DETSC 3301	0.1	0.8	0.6		
Benzo(k)fluoranthene	mg/kg	DETSC 3301	0.1	0.3	0.3		
Benzo(g,h,i)perylene	mg/kg	DETSC 3301	0.1	0.5	0.4		
Chrysene	mg/kg	DETSC 3301	0.1	0.9	0.8		
Dibenzo(a,h)anthracene	mg/kg	DESTC 3301	0.1	0.2	0.2		
Fluoranthene	mg/kg	DETSC 3301	0.1	1.2	1.2		
Fluorene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1		
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3301	0.1	0.7	0.5		
Naphthalene	mg/kg	DETSC 3301	0.1	< 0.1	< 0.1		
Phenanthrene	mg/kg	DETSC 3301	0.1	0.6	0.5		
Pyrene	mg/kg	DETSC 3301	0.1	1.1	1.0		
PAH	mg/kg	DETSC 3301	1.6	8.3	7.4	< 1.6	
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	< 0.3	< 0.3	< 0.3	
PCB	mg/kg	DETSC 3401#	0.01			< 0.01	
2,4,4'-Trichlorobiphenyl PCB 28	mg/kg	DETSC 3401#	0.01			< 0.01	
2,2',5,5'-Tetrachlorobiphenyl PCB 52	mg/kg	DETSC 3401#	0.01			< 0.01	
2,2',4,5,5'-Pentachlorobiphenyl PCB 101	mg/kg	DETSC 3401#	0.01			< 0.01	
2,3',4,4',5-Pentachlorobiphenyl PCB 118	mg/kg	DETSC 3401#	0.01			< 0.01	
2,2',4,4',5,5'-Hexachlorobiphenyl PCB 153	mg/kg	DETSC 3401#	0.01			< 0.01	
2,2',3,4,4',5'-Hexachlorobiphenyl PCB 138	mg/kg	DETSC 3401#	0.01			< 0.01	
2,2',3,4,4',5,5'-Heptachlorobiphenyl PCB 180	mg/kg	DETSC 3401#	0.01			< 0.01	

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-71357-2

Client Ref:

Contract Title: Herbert Road

				Lab No.	460756	460757	460758
				Sample ID	TP6	TP6	TP7
				Depth	0.60	1.80	0.20
				Sample Ref			
				Sample Type			
				Sampling Date	06/11/2012	06/11/2012	06/11/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Arsenic	mg/kg	DETS 042#	0.2		8.1	17	19
Cadmium	mg/kg	DETS 042#	0.1		0.8	1.2	0.9
Chromium III	mg/kg	DETS 042*	0.15		19	31	42
Chromium	mg/kg	DETS 042#	0.15		19	31	42
Hexavalent Chromium	mg/kg	DETSC 2204*	1		< 1.0	< 1.0	< 1.0
Copper	mg/kg	DETS 042#	0.2		10	130	110
Lead	mg/kg	DETS 042#	0.3		10	190	93
Mercury	mg/kg	DETSC 2325	0.05		0.05	1.9	0.43
Nickel	mg/kg	DETS 042#	1		31	43	43
Selenium	mg/kg	DETS 042#	0.5		< 0.5	< 0.5	< 0.5
Zinc	mg/kg	DETS 042#	1		140	330	240
Cyanide total	mg/kg	DETSC 2130#	0.1		0.5	3.1	0.5
Organic matter	%	DETSC 2002#	0.1		1.4	5.7	4.9
Total Sulphate as SO4	%	DETSC 2321#	0.01		0.02	0.21	0.06
Sulphate Aqueous Extract as SO4	mg/l	DETSC 2076#	10				
pH		DETSC 2008#			9.0	8.7	9.0
Aliphatic C5-C6	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	mg/kg	DETSC 3321*	0.01		< 0.01	0.02	< 0.01
Aliphatic C10-C12	mg/kg	DETSC 3072#	1.5		< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	mg/kg	DETSC 3072#	1.2		< 1.2	16	< 1.2
Aliphatic C16-C21	mg/kg	DETSC 3072#	1.5		< 1.5	120	< 1.5
Aliphatic C21-C35	mg/kg	DETSC 3072#	3.4		< 3.4	340	< 3.4
Aromatic C5-C7	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C7-C8	mg/kg	DETSC 3321*	0.01		< 0.01	< 0.01	< 0.01
Aromatic C8-C10	mg/kg	DETSC 3321*	0.01		< 0.01	0.05	< 0.01
Aromatic C10-C12	mg/kg	DETSC 3072#	0.9		< 0.9	< 0.9	< 0.9
Aromatic C12-C16	mg/kg	DETSC 3072#	0.5		< 0.5	9.1	< 0.5
Aromatic C16-C21	mg/kg	DETSC 3072#	0.6		< 0.6	45	2.0
Aromatic C21-C35	mg/kg	DETSC 3072#	1.4		< 1.4	140	12
Aliphatic C5-C35	mg/kg	DETSC 3072*	10		< 10	480	< 10
Aromatic C5-C35	mg/kg	DETSC 3072*	10		< 10	190	14
TPH Ali/Aro	mg/kg	DETSC 3072*	10		< 10	670	14

Summary of Chemical Analysis

Soil Samples

Our Ref: 12-71357-2

Client Ref:

Contract Title: Herbert Road

				Lab No.	460756	460757	460758
				Sample ID	TP6	TP6	TP7
				Depth	0.60	1.80	0.20
				Sample Ref			
				Sample Type			
				Sampling Date	06/11/2012	06/11/2012	06/11/2012
				Sampling Time			
Test	Units	DETSxx	LOD				
Acenaphthene	mg/kg	DETSC 3301	0.1			1.5	0.4
Acenaphthylene	mg/kg	DETSC 3301	0.1			1.4	< 0.1
Anthracene	mg/kg	DETSC 3301	0.1			0.4	0.9
Benzo(a)anthracene	mg/kg	DETSC 3301	0.1			1.8	2.4
Benzo(a)pyrene	mg/kg	DETSC 3301	0.1			0.7	1.9
Benzo(b)fluoranthene	mg/kg	DETSC 3301	0.1			0.8	1.5
Benzo(k)fluoranthene	mg/kg	DETSC 3301	0.1			0.4	0.7
Benzo(g,h,i)perylene	mg/kg	DETSC 3301	0.1			0.9	1.1
Chrysene	mg/kg	DETSC 3301	0.1			1.1	2.3
Dibenzo(a,h)anthracene	mg/kg	DESTC 3301	0.1			0.2	0.3
Fluoranthene	mg/kg	DETSC 3301	0.1			1.1	4.4
Fluorene	mg/kg	DETSC 3301	0.1			0.1	0.3
Indeno(1,2,3-c,d)pyrene	mg/kg	DETSC 3301	0.1			0.6	1.3
Naphthalene	mg/kg	DETSC 3301	0.1			0.2	0.7
Phenanthrene	mg/kg	DETSC 3301	0.1			0.5	3.3
Pyrene	mg/kg	DETSC 3301	0.1			1.3	3.8
PAH	mg/kg	DETSC 3301	1.6	< 1.6		13	25
Phenol - Monohydric	mg/kg	DETSC 2130#	0.3	< 0.3		0.5	< 0.3
PCB	mg/kg	DETSC 3401#	0.01	0.15			< 0.01
2,4,4'-Trichlorobiphenyl PCB 28	mg/kg	DETSC 3401#	0.01	< 0.01			< 0.01
2,2',5,5'-Tetrachlorobiphenyl PCB 52	mg/kg	DETSC 3401#	0.01	< 0.01			< 0.01
2,2',4,5,5'-Pentachlorobiphenyl PCB 101	mg/kg	DETSC 3401#	0.01	0.01			< 0.01
2,3',4,4',5-Pentachlorobiphenyl PCB 118	mg/kg	DETSC 3401#	0.01	0.02			< 0.01
2,2',4,4',5,5'-Hexachlorobiphenyl PCB 153	mg/kg	DETSC 3401#	0.01	0.02			< 0.01
2,2',3,4,4',5'-Hexachlorobiphenyl PCB 138	mg/kg	DETSC 3401#	0.01	0.05			< 0.01
2,2',3,4,4',5,5'-Heptachlorobiphenyl PCB 180	mg/kg	DETSC 3401#	0.01	0.04			< 0.01