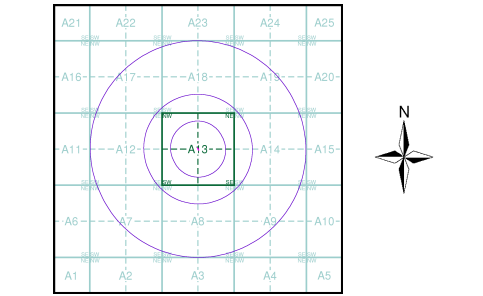


- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Historical Prosecutions
 - Prosecutions
 - Registered Radioactive Substance
 - River Network or Water Feature
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
- BOS Recorded Landfill Site (Location)
 - BOS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Location)
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHNS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BOS Recorded Mineral Site

Site Sensitivity Map - Slice A



Order Details

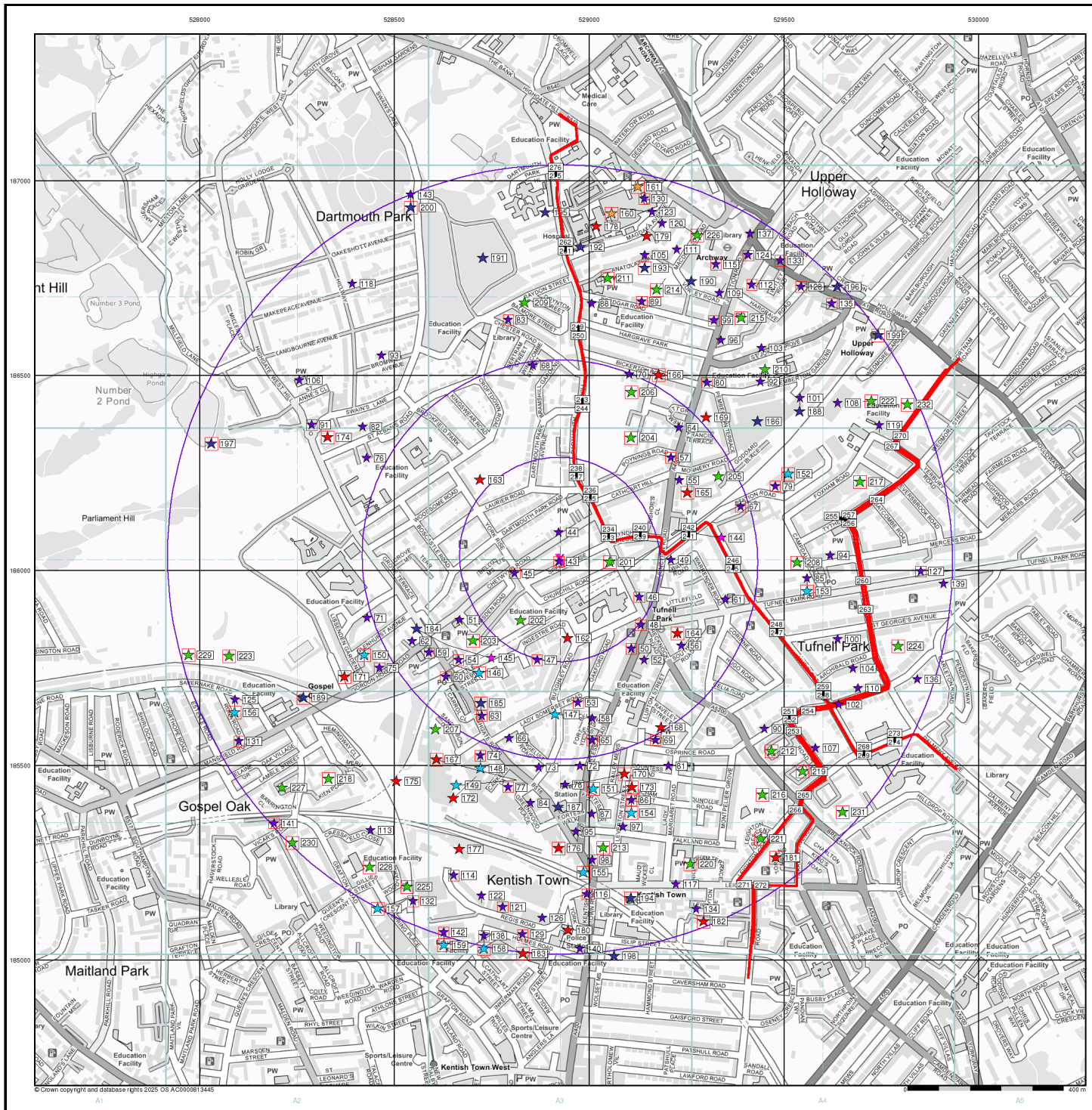
Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details

31 Spencer Rise, LONDON, NW5 1AR

Landmark
 INFORMATION GROUP

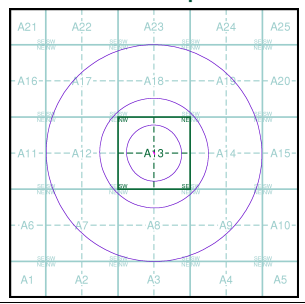
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



Industrial Land Use Map

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry
 - Points of Interest - Commercial Services
 - Points of Interest - Education and Health
 - Points of Interest - Manufacturing and Production
 - Points of Interest - Public Infrastructure
 - Points of Interest - Recreational and Environmental
 - Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186300
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details

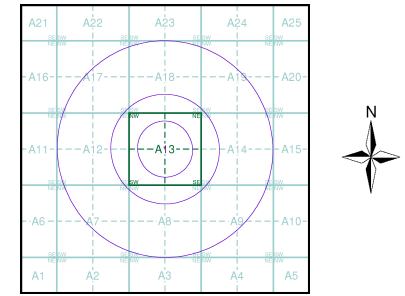
31 Spencer Rise, LONDON, NW5 1AR



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point

- Agency and Hydrological (Flood)**
- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
 - Flooding from Rivers or Sea without Defences (Zone 3)
 - Area Benefiting from Flood Defence
 - Flood Water Storage Areas
 - Flood Defence

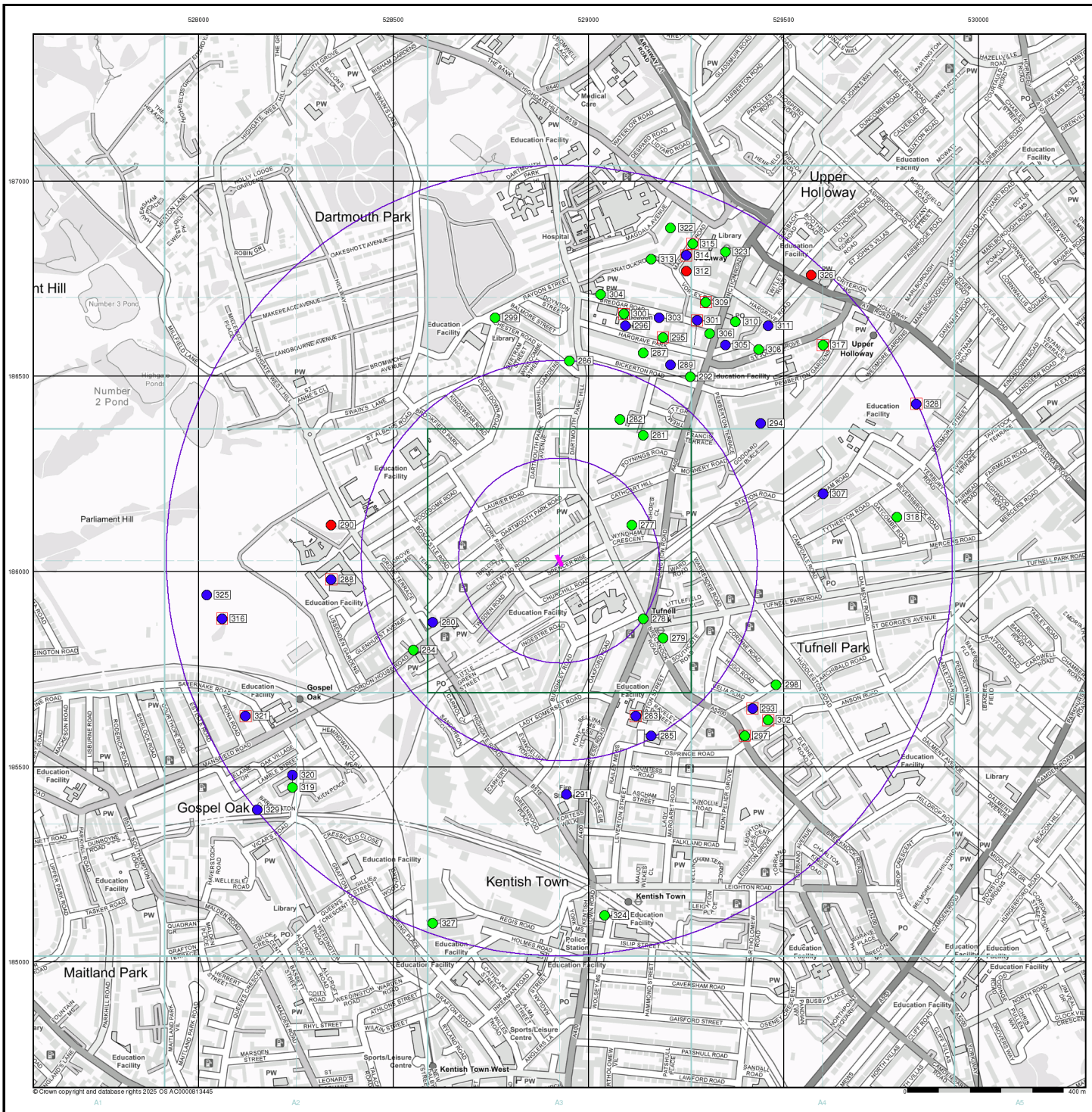
Flood Map - Slice A



Order Details
 Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186300
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details
 31 Spencer Rise, LONDON, NW5 1AR

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



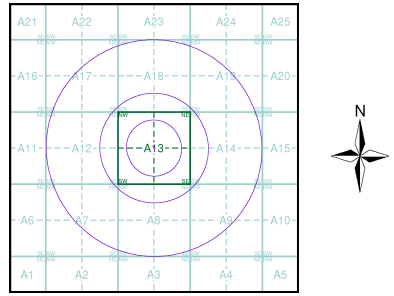
- General**
- Specified Site
 - Specified Buffer(s)
 - X Bearing Reference Point
 - Map ID
 - Several of Type at Location

- Agency and Hydrological (Boreholes)**
- BGS Borehole Depth 0 - 10m
 - BGS Borehole Depth 10 - 30m
 - BGS Borehole Depth 30m +
 - Confidential
 - Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186300
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details

31 Spencer Rise, LONDON, NW5 1AR



General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

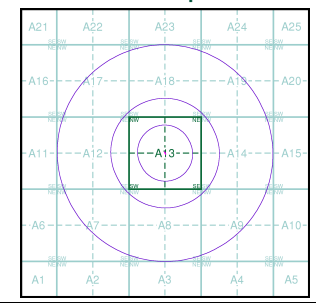
OS Water Network Data

- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea

Contours (height in meters)

- Standard Contour Mean Low Water
- Master Contour Mean High Water
- Spot Height

OS Water Network Map - Slice A



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details

31 Spencer Rise, LONDON, NW5 1AR



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

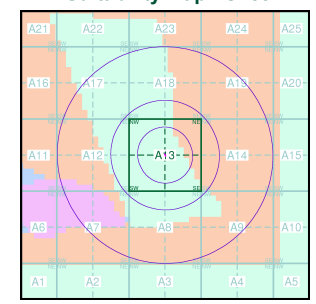


- General**
- ★ Specified Site
 - Specified Buffer(s)
 - ✕ Bearing Reference Point

- Risk of Flooding from Surface Water**
- High - 30 Year Return
 - Medium - 100 Year Return
 - Low - 1000 Year Return

- Suitability**
See the suitability map below
- National to county
 - County to town
 - Town to street
 - Street to parcels of land
 - Property

EANRW Suitability Map - Slice A

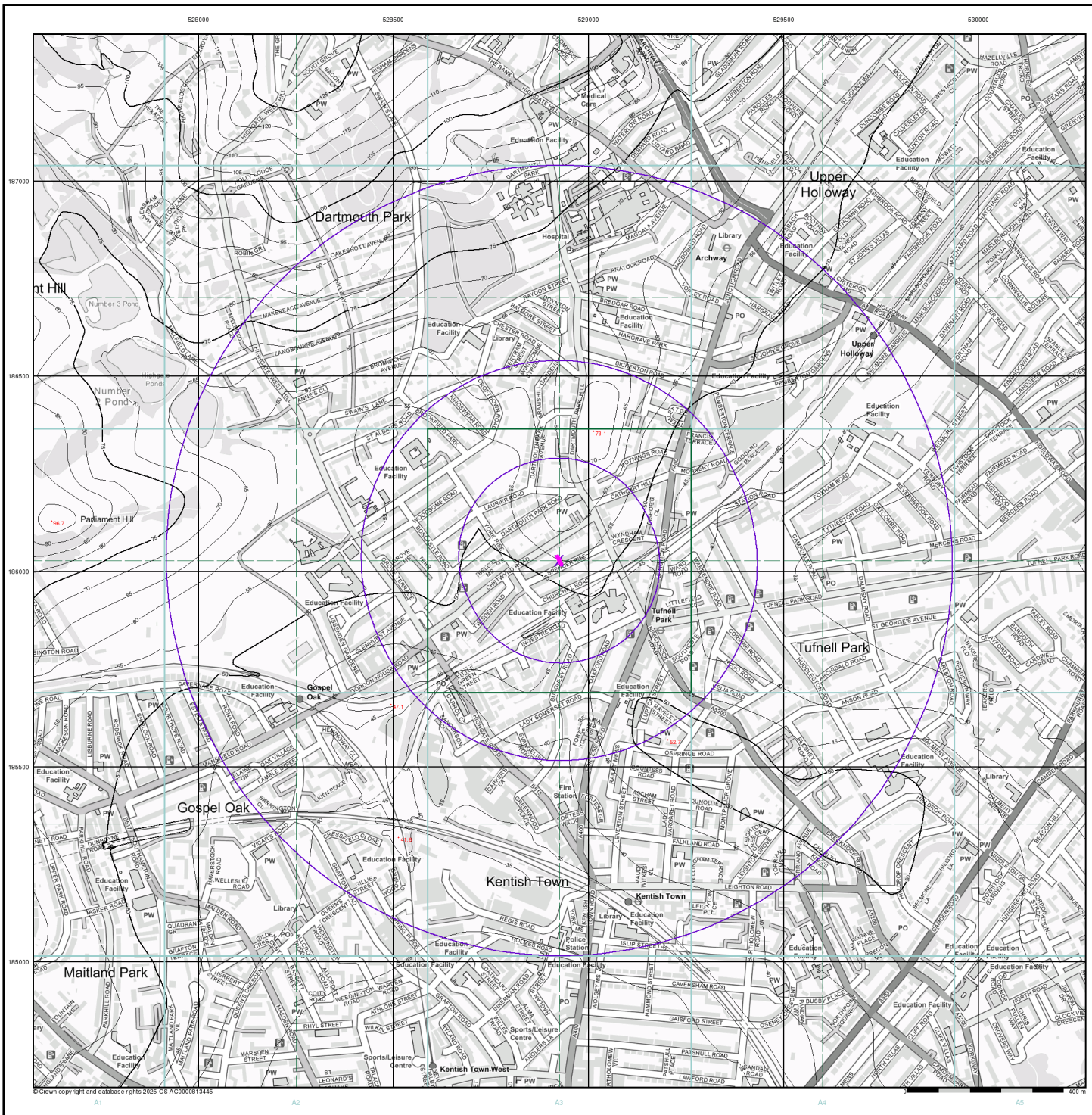


Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186300
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details

31 Spencer Rise, LONDON, NW5 1AR



WFD Surface Waters Map

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

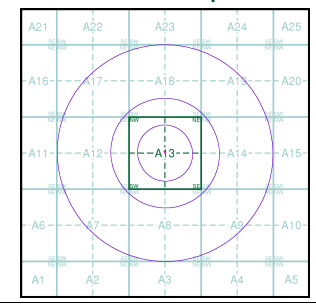
Water Framework Directive - Surface Water Quality

- High
- Good
- Moderate
- Poor
- Bad

Contours (height in meters)

- Standard Contour 105
- Master Contour 100
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

WFD Surface Waters Map - Slice A



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186300
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 1000

Site Details

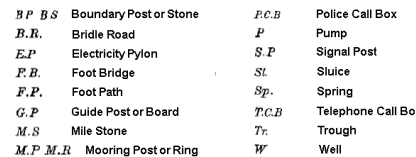
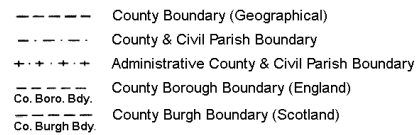
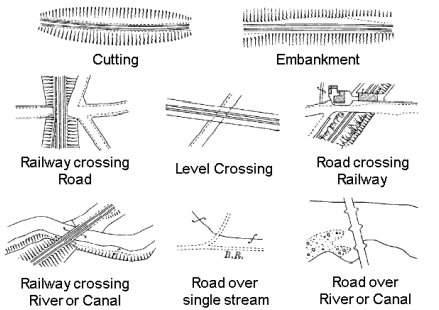
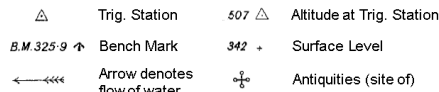
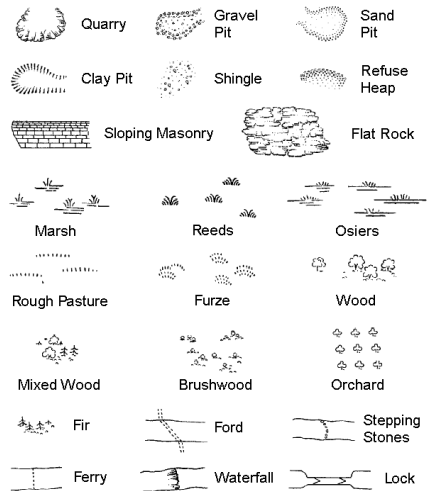
31 Spencer Rise, LONDON, NW5 1AR



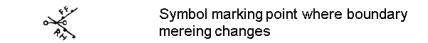
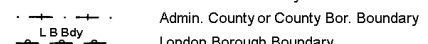
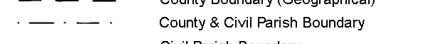
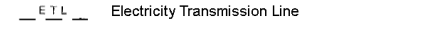
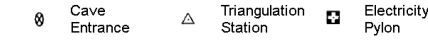
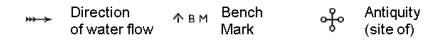
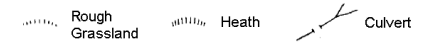
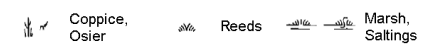
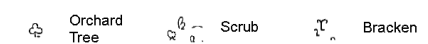
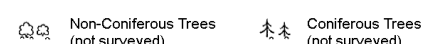
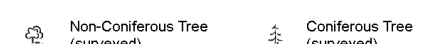
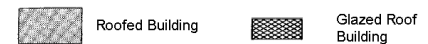
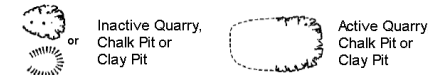
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Historical Mapping Legends

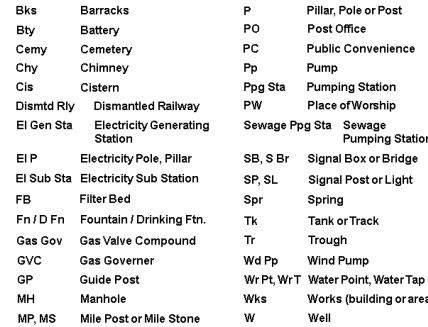
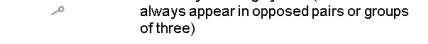
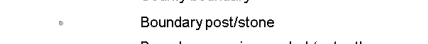
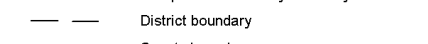
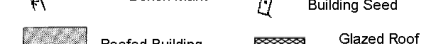
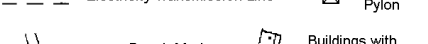
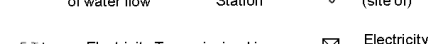
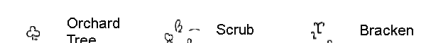
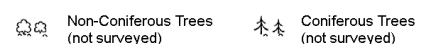
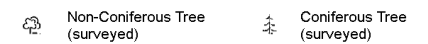
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



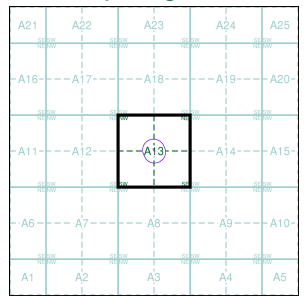
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
London	1:2,500	1873	2
London	1:2,500	1896	3
London	1:2,500	1915	4
London	1:2,500	1936	5
Historical Aerial Photography	1:1,250	1946	6
Ordnance Survey Plan	1:1,250	1952 - 1954	7
Ordnance Survey Plan	1:2,500	1953 - 1954	8
Additional SIMs	1:2,500	1953	9
Ordnance Survey Plan	1:1,250	1962 - 1968	10
Ordnance Survey Plan	1:2,500	1970	11
Ordnance Survey Plan	1:1,250	1973 - 1979	12
Supply of Unpublished Survey Information	1:1,250	1974	13
Additional SIMs	1:1,250	1981 - 1984	14
Additional SIMs	1:1,250	1988	15
Large-Scale National Grid Data	1:1,250	1991	16
Large-Scale National Grid Data	1:1,250	1992 - 1995	17
Historical Aerial Photography	1:2,500	1999	18

Historical Map - Segment A13



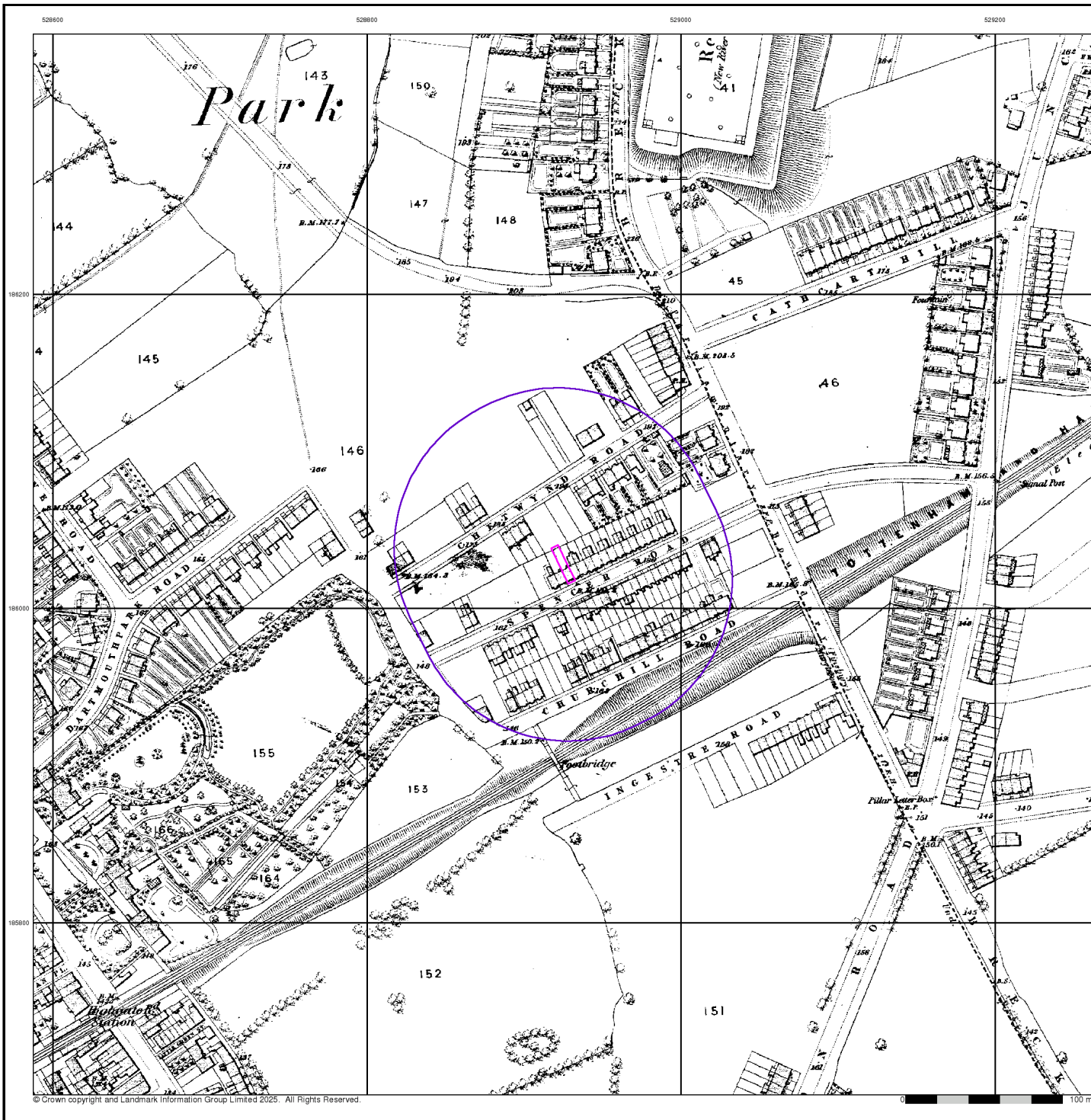
Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR





© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.

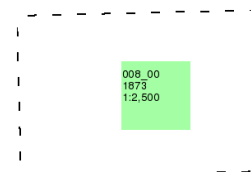
0 100 m



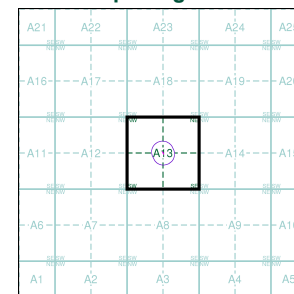
London
Published 1873
Source map scale - 1:2,500

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

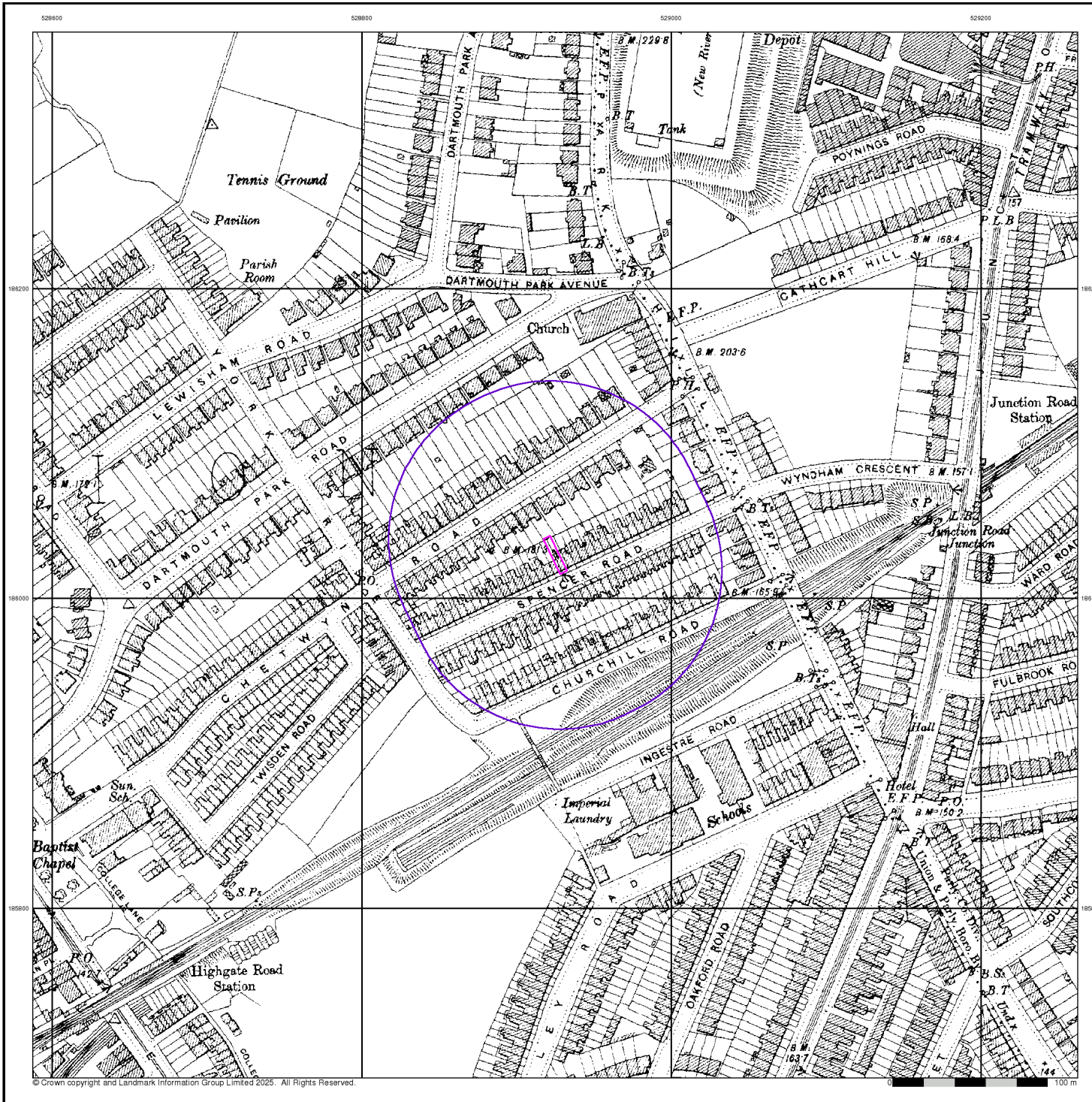
Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



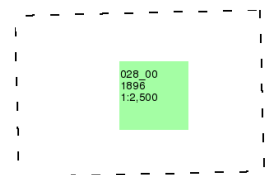
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



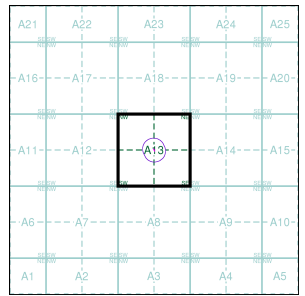
London
Published 1896
Source map scale - 1:2,500

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: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

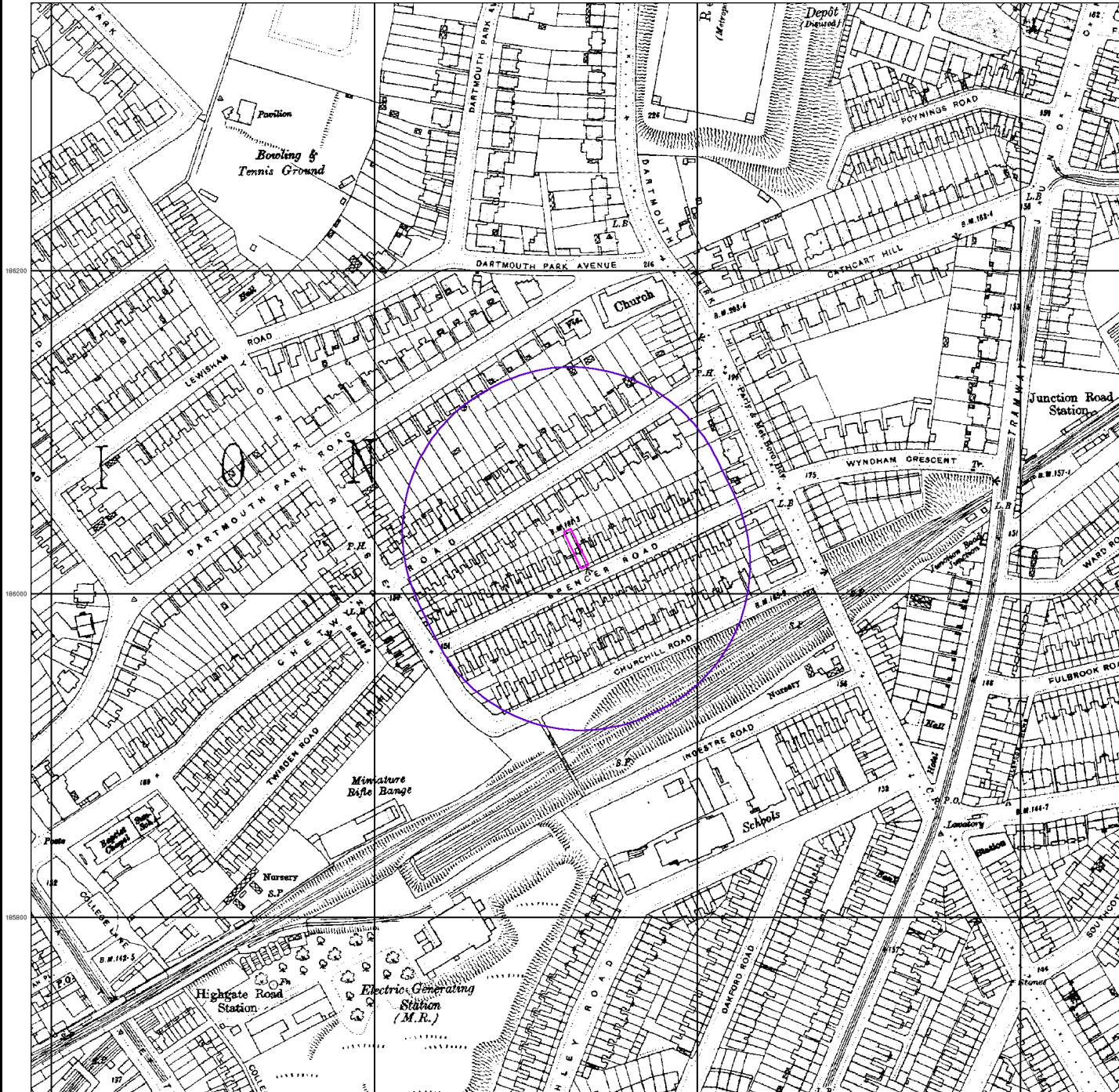
31 Spencer Rise, LONDON, NW5 1AR

528800

528800

529000

529000



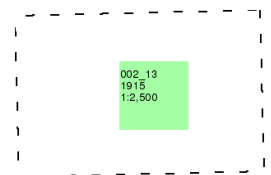
© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



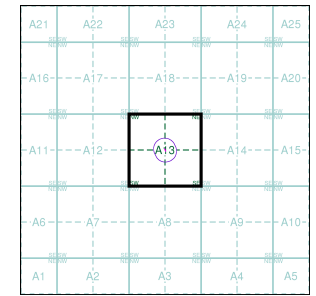
London
Published 1915
Source map scale - 1:2,500

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: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



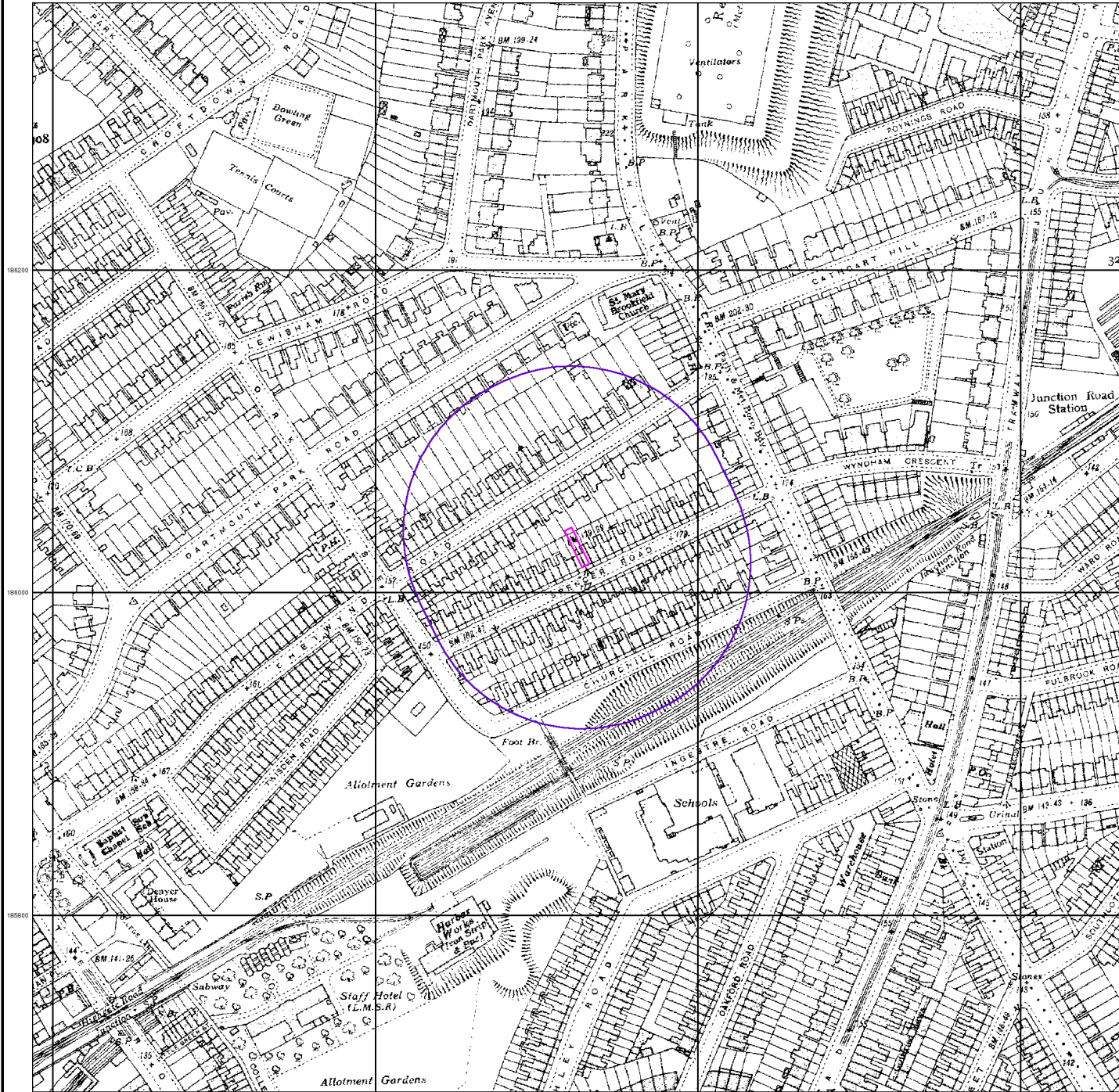
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

528900

528900

529000

529000



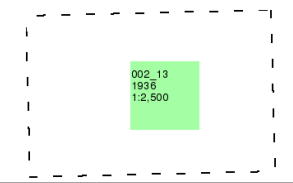
© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



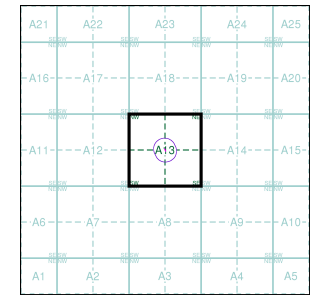
London
Published 1936
Source map scale - 1:2,500

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: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



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



© THE BRITISH LIBRARY BOARD. ALL RIGHTS RESERVED. Licence No.8048



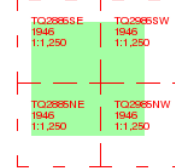
Historical Aerial Photography Published 1946

Source map scale - 1:1,250

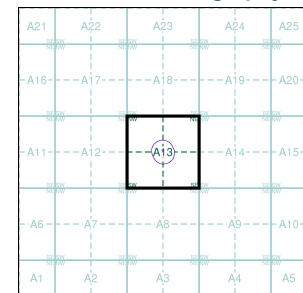
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

© THE BRITISH LIBRARY BOARD. ALL RIGHTS RESERVED. Licence No.8048

Map Name(s) and Date(s)



Historical Aerial Photography - Segment A13



LIBRARY
HISTORICAL

Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR

Landmark[®]
 INFORMATION GROUP

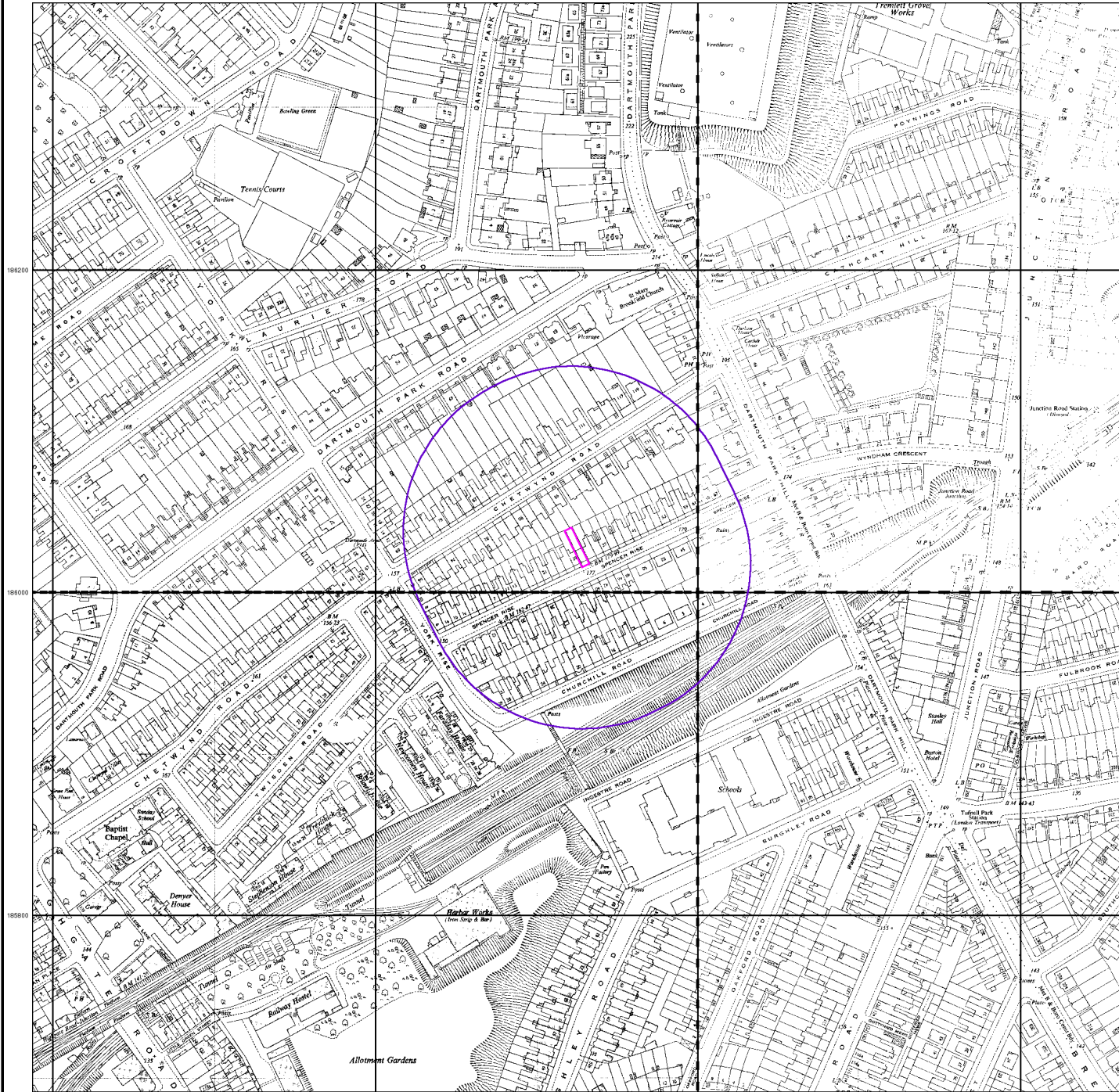
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

528800

528800

529000

529000



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.

0 100 m



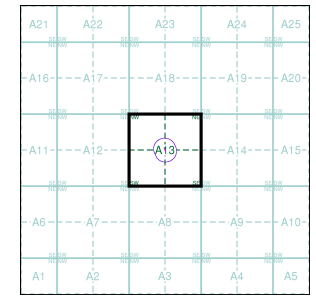
Ordnance Survey Plan
Published 1952 - 1954
Source map scale - 1:1,250

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)

TQ2886SE 1952 1:1,250	TQ2986SW 1952 1:1,250
TQ2886NE 1954 1:1,250	TQ2986NW 1954 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



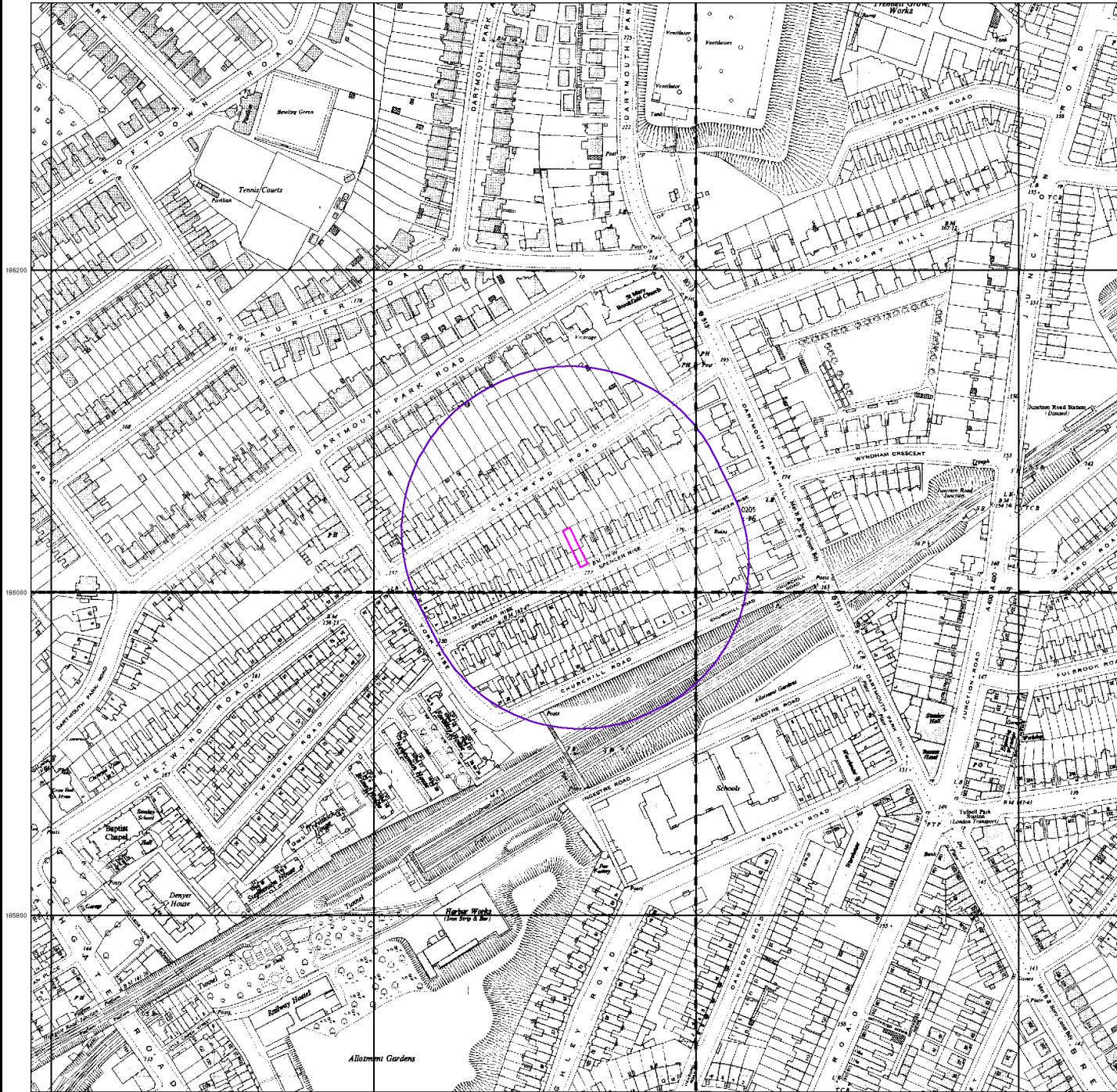
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

528800

528800

529000

529200



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.

0 100 m



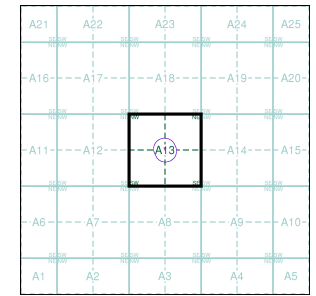
Ordnance Survey Plan
Published 1953 - 1954
Source map scale - 1:2,500

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)

TQ2886	TQ2886
1953	1953
12,500	12,500
■	
TQ2885	TQ2885
1954	1954
12,500	12,500

Historical Map - Segment A13



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



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

528800

528800

529000

529200

186200

186200

186000

186000

185800

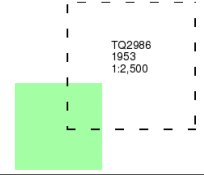
185800



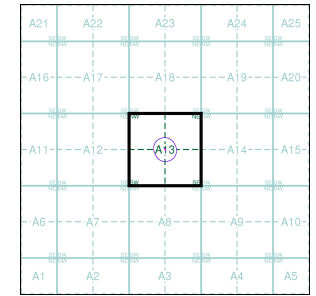
**Additional SIMs
Published 1953
Source map scale - 1:2,500**

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

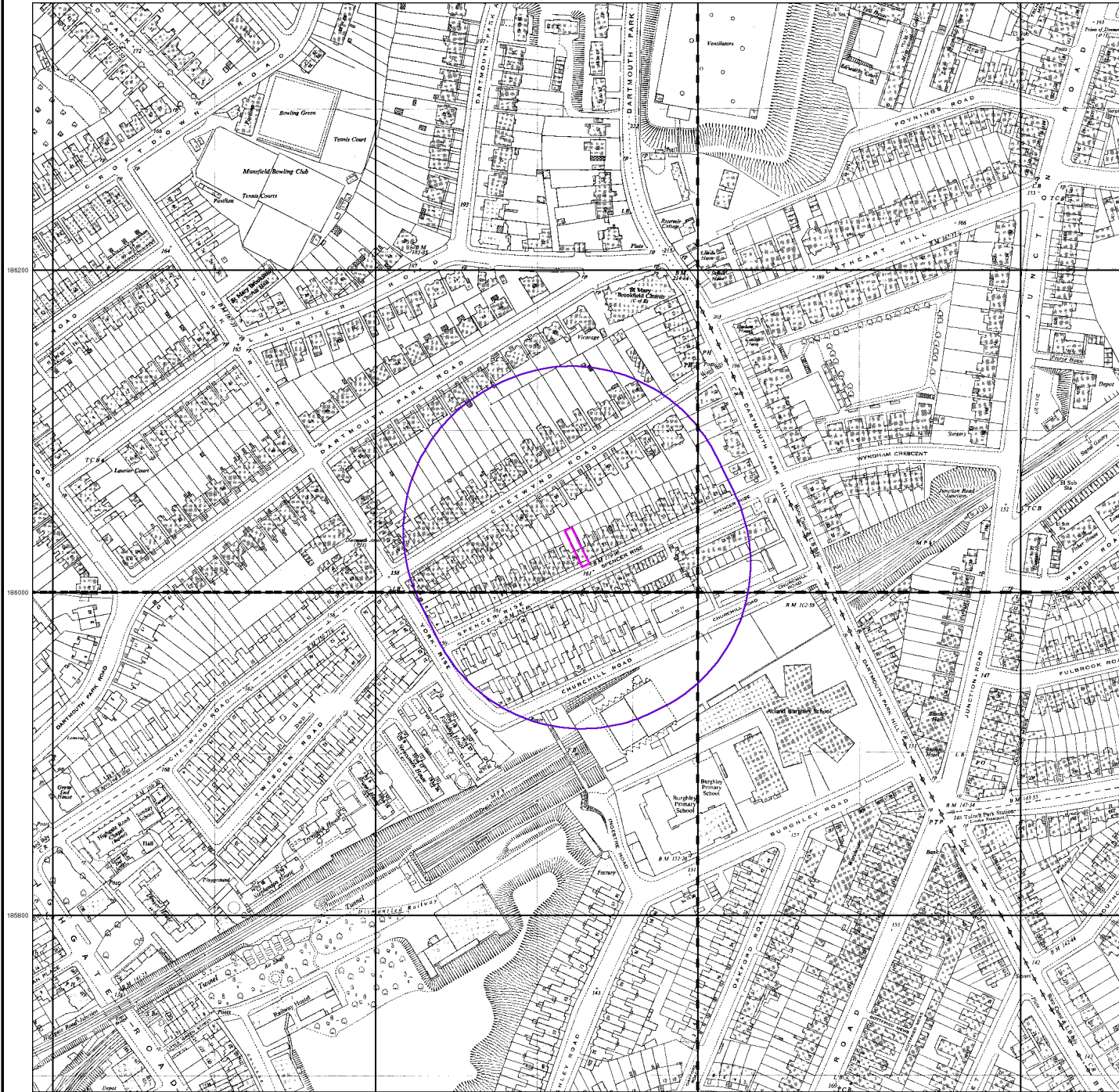
31 Spencer Rise, LONDON, NW5 1AR

528800

528800

529000

529000



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.

0 100 m



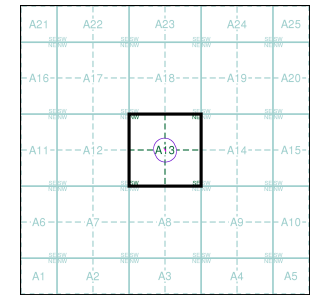
Ordnance Survey Plan
Published 1962 - 1968
Source map scale - 1:1,250

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)

TQ2886SE	TQ2986SW
1962	1968
1:1,250	1:1,250
TQ2886NE	TQ2986NW
1968	1967
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



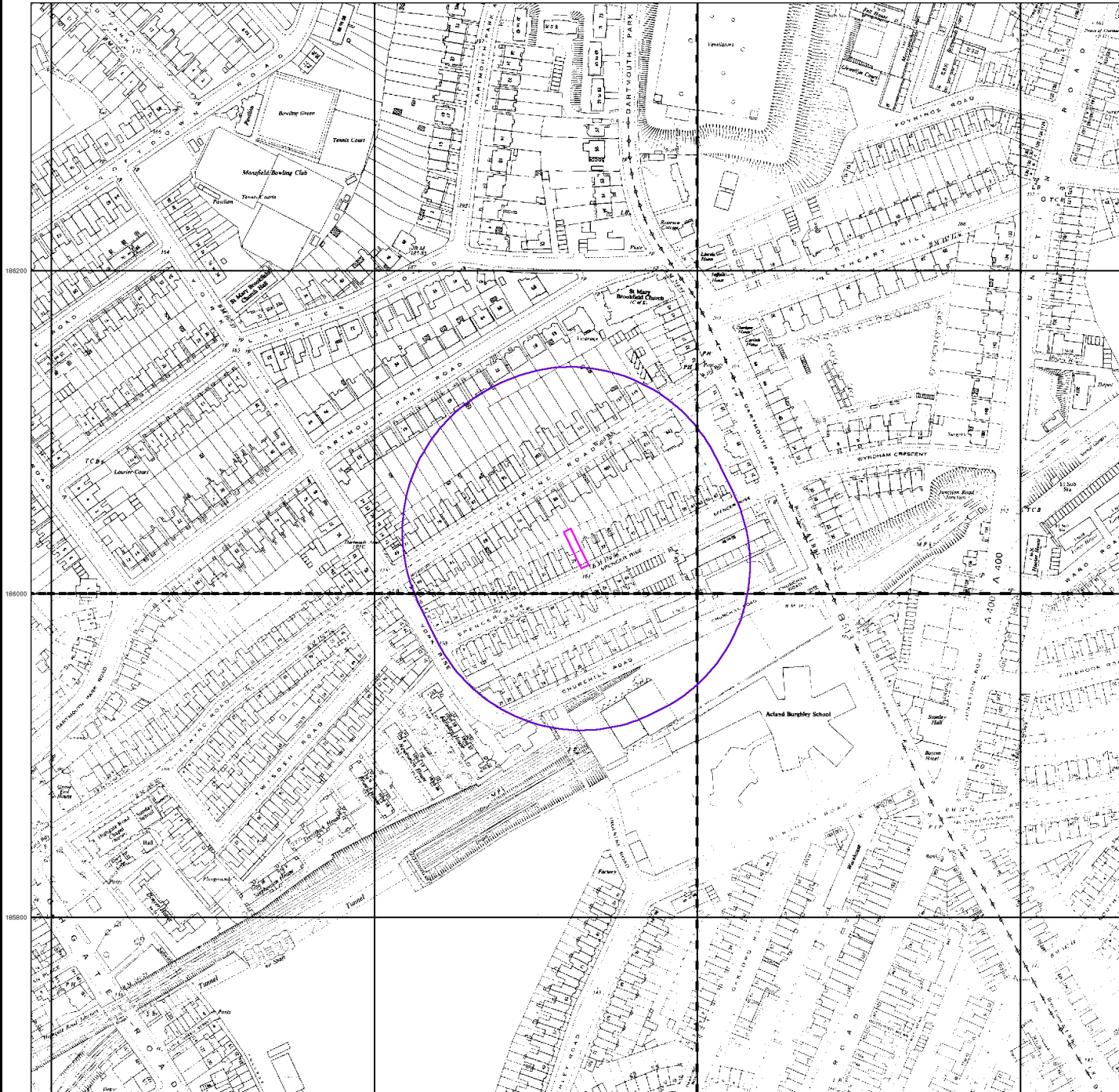
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

528800

528800

529000

529200



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.

0 100 m



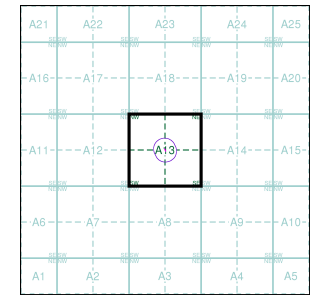
Ordnance Survey Plan
Published 1970
Source map scale - 1:2,500

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)

TQ2886 1970 12,500	TQ2986 1970 12,500
TQ2885 1970 12,500	TQ2985 1970 12,500

Historical Map - Segment A13



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



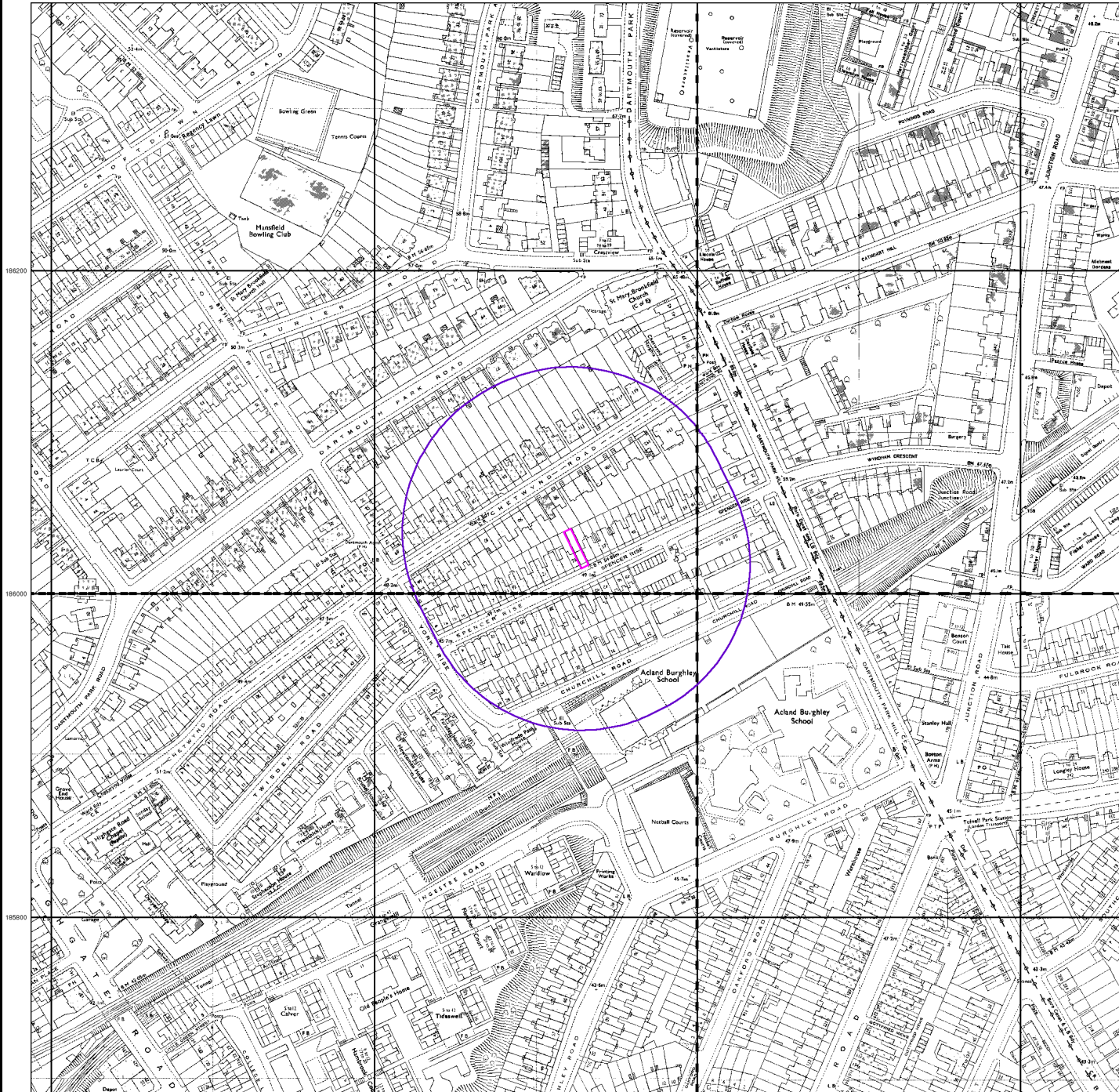
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

528800

528800

529000

529000



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



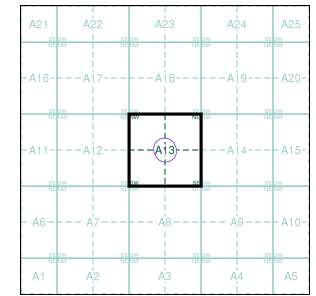
Ordnance Survey Plan
Published 1973 - 1979
Source map scale - 1:1,250

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)

TQ2886SE	TQ2986SW
1975	1979
1:1,250	1:1,250
TQ2886NE	TQ2986NW
1973	1975
1:1,250	1:1,250

Historical Map - Segment A13

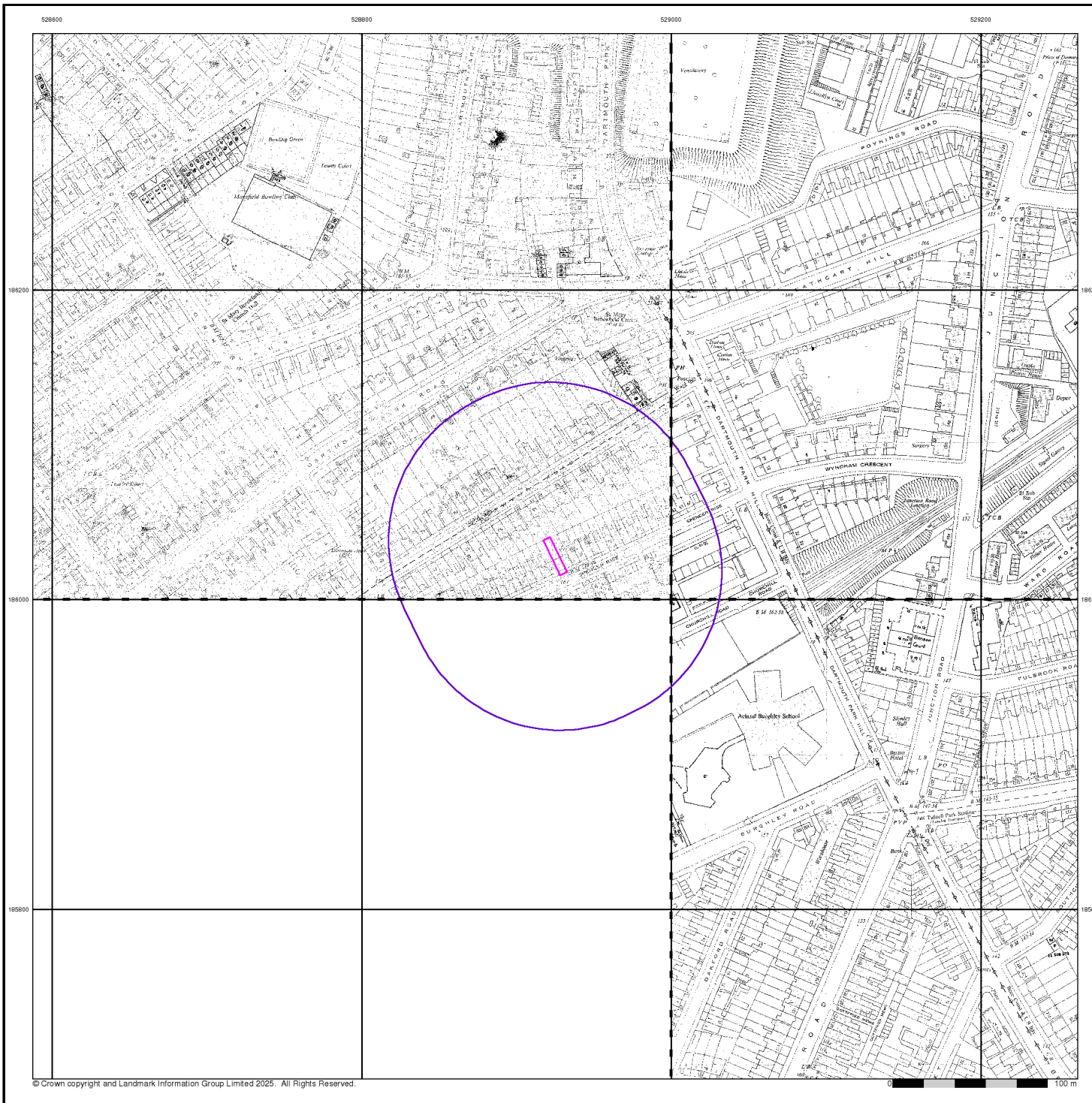


Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



Supply of Unpublished Survey Information

Published 1974

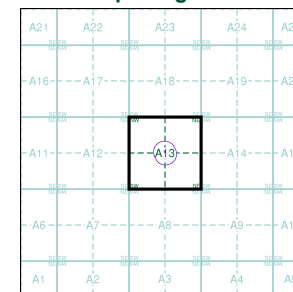
Source map scale - 1:1,250

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)

TQ2886SE	TQ2886SW
1974	1974
1:1,250	1:1,250
TQ2985NW	
1974	
1:1,250	

Historical Map - Segment A13



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



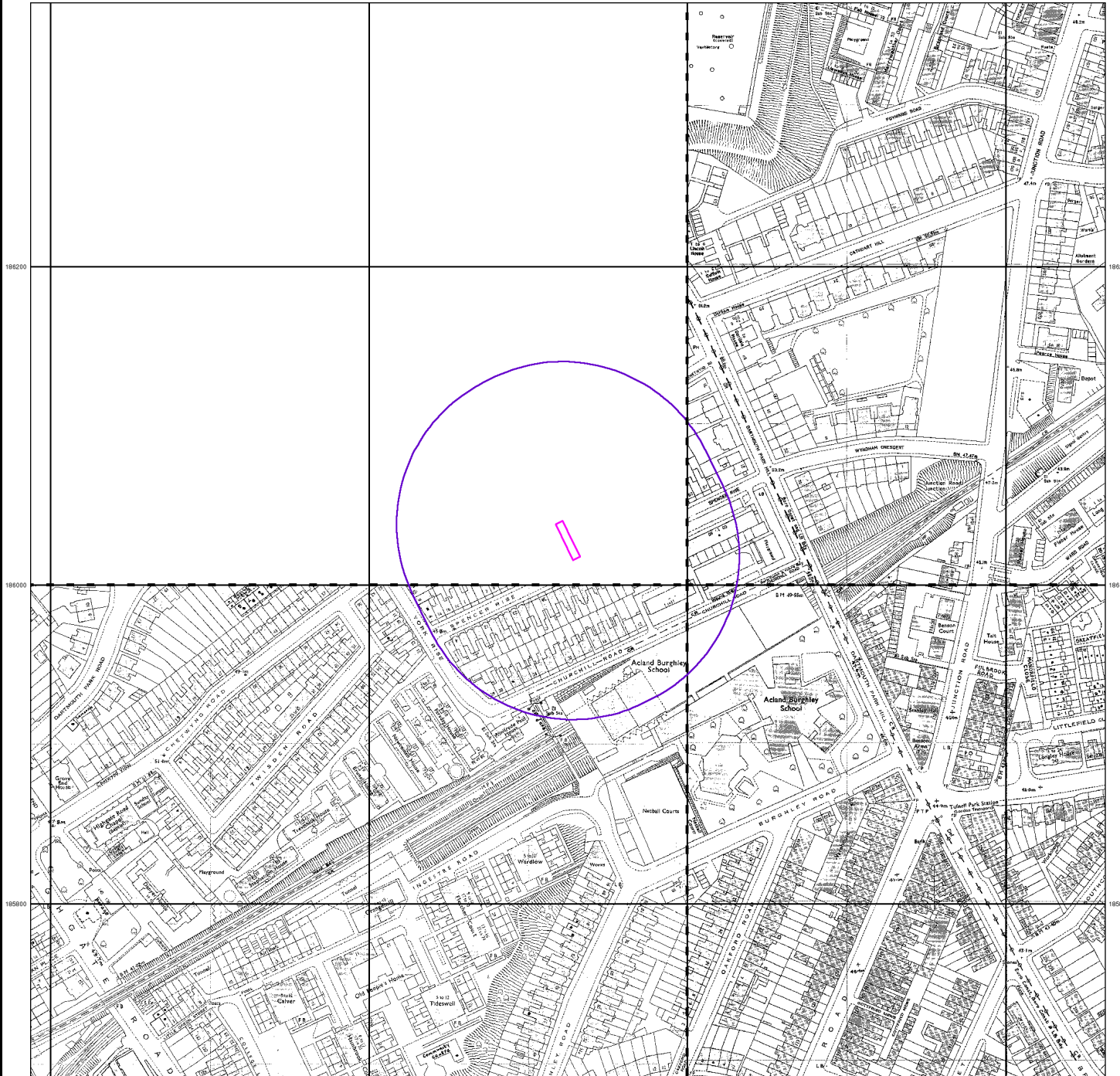
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

528800

528900

529000

529200



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.

0 100 m



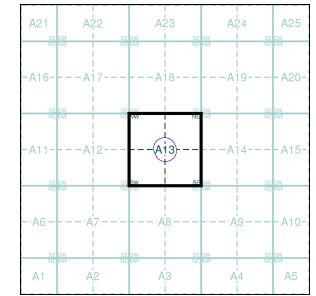
Additional SIMs
Published 1981 - 1984
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TQ2986SW	1984	1:1,250
TQ2885NE	1981	1:1,250
TQ2985NW	1982	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



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

528800

528800

529000

529200

186200

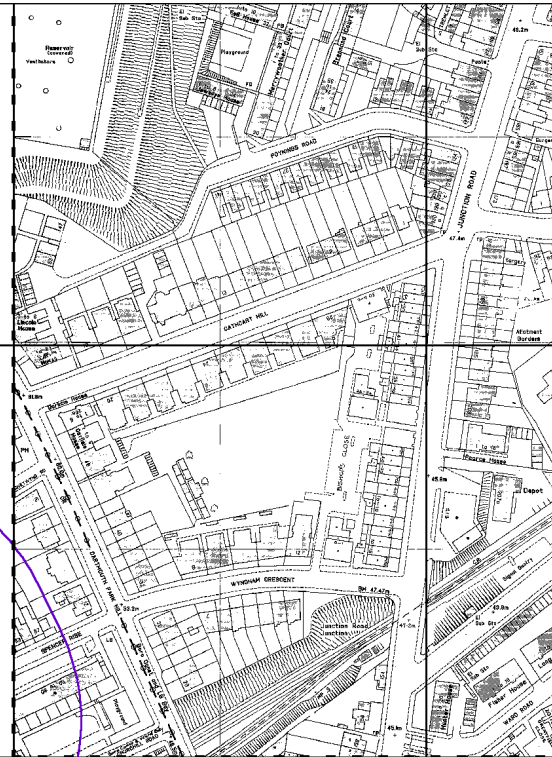
186200

186000

186000

185800

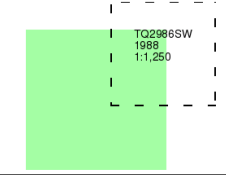
185800



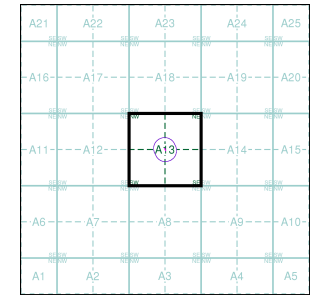
**Additional SIMs
Published 1988
Source map scale - 1:1,250**

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

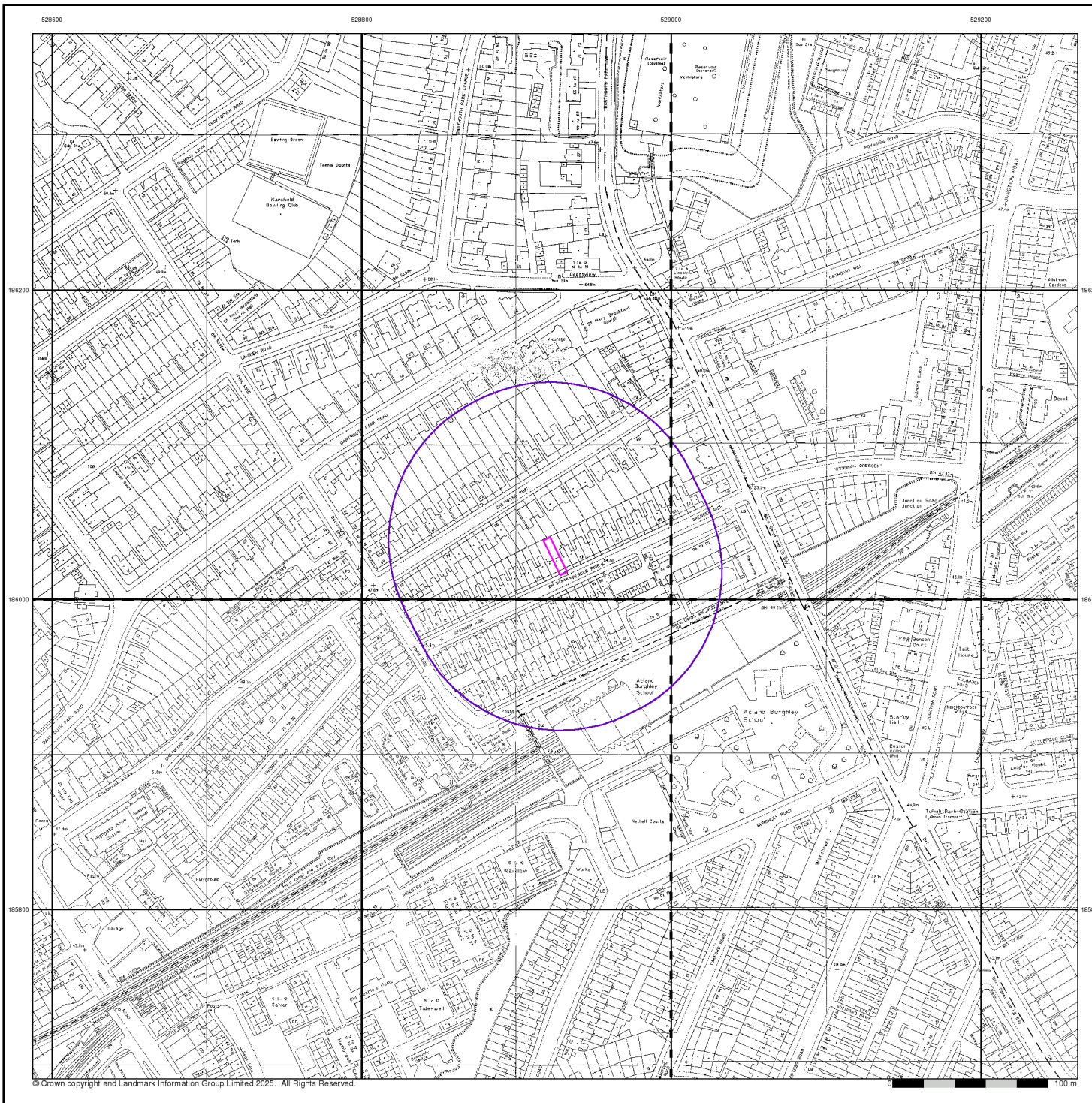


Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



© Crown copyright and Landmark Information Group Limited 2025. All Rights Reserved.



**Large-Scale National Grid Data
Published 1991**

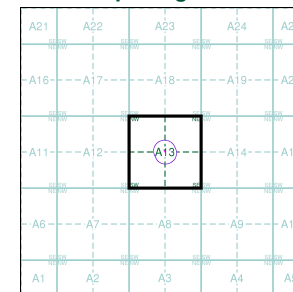
Source map scale - 1:1,250

'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)

TQ2886SE 1991 1:1,250	TQ2886SW 1991 1:1,250
TQ2885NE 1991 1:1,250	TQ2885NW 1991 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



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

528600

528800

529000

529200

186200

186200

186000

186000

185800

185800



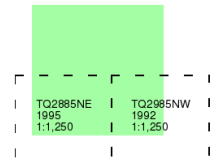
Large-Scale National Grid Data

Published 1992 - 1995

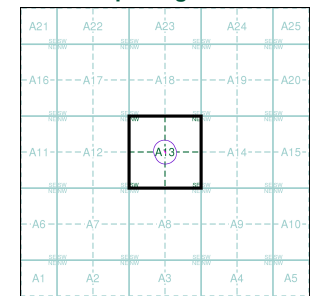
Source map scale - 1:1,250

'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)



Historical Map - Segment A13



Order Details

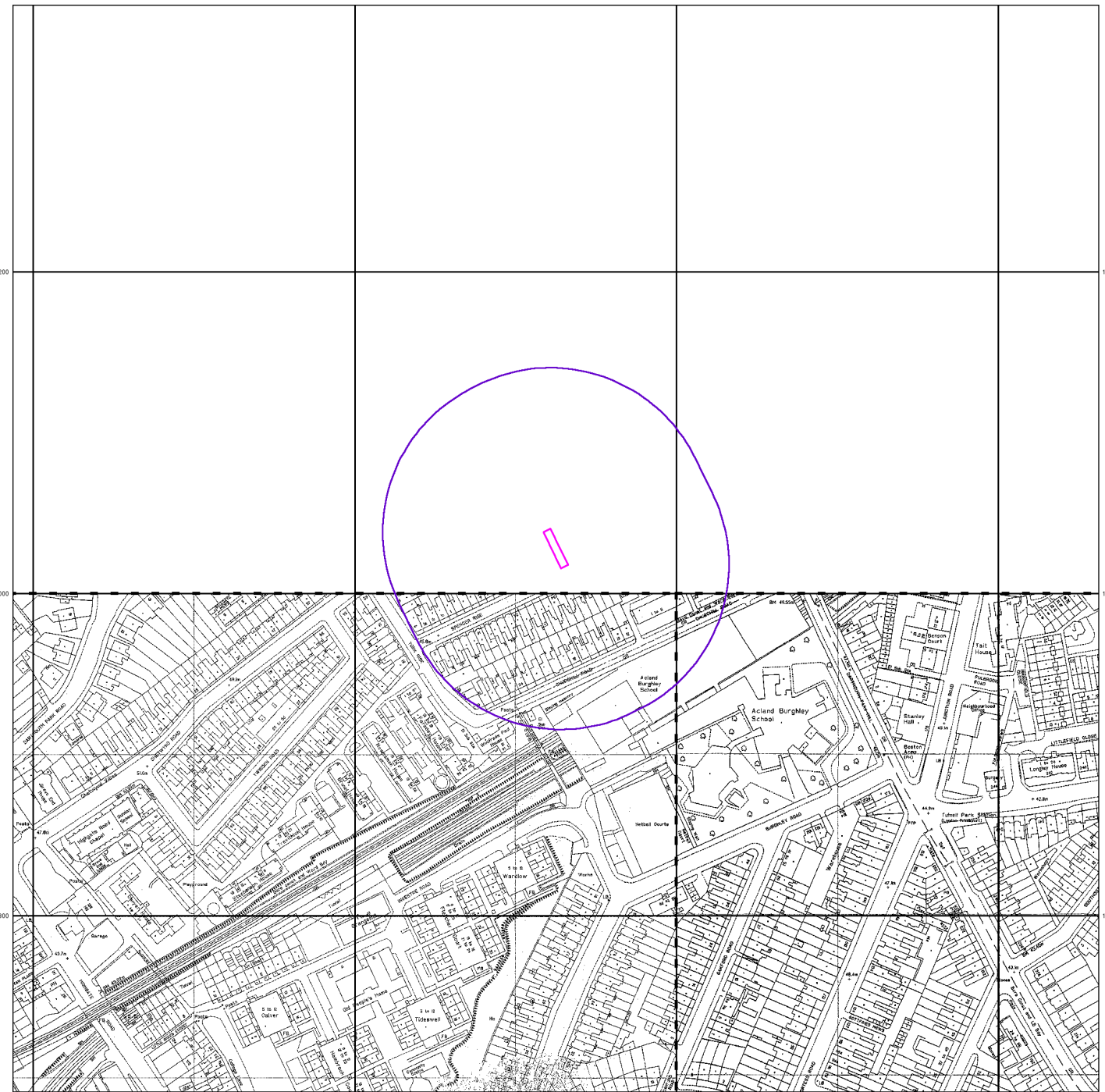
Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



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



528600

528800

529000

529200

186200

186200

186000

186000

185800

185800



© Copyright Getmapping plc

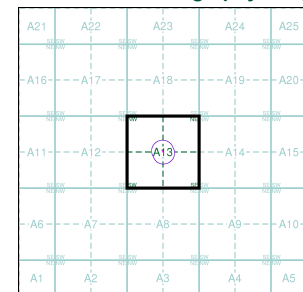
0 100 m



Historical Aerial Photography
Published 1999

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

Historical Aerial Photography - Segment A13



Order Details

Order Number: 387797326_1_1
 Customer Ref: J25310
 National Grid Reference: 528920, 186030
 Slice: A
 Site Area (Ha): 0.02
 Search Buffer (m): 100

Site Details

31 Spencer Rise, LONDON, NW5 1AR



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



Preliminary Unexploded Ordnance (UXO) Risk Assessment

Project Name	31 Spencer Rise, London
Client	CEA Ltd
Site Address	Spencer Rise, Camden, London NW5 1AR
Report Reference	PA22851-00
Date	15 th August 2025
Author	JA
Quality Assurance	AT

1st Line Defence

3 Mable Park, Essex Road, Huddersdon, EN111 0EX
Tel +44 (0) 1992 245 020 Email info@1stlinedefence.co.uk
Web www.1stlinedefence.co.uk Company Reg No. 0777865



1ST LINE DEFENCE





Assessment Objective

This preliminary unexploded ordnance (UXO) risk assessment is a qualitative screening exercise to assess the likely potential of encountering UXO at the 31 Spencer Rise, London site. The assessment involves the consideration of the basic factors that affect the potential for UXO to be present at a site as outlined in Stage One of the UXO risk management process.

Background

This assessment uses the sources of information available in-house to 1st Line Defence Ltd to enable the placement of a development site in context with events that may have led to the presence of German air-delivered or Allied military UXO. The report will identify any immediate necessity for risk mitigation or additional research in the form of a Detailed UXO Risk Assessment. It makes use of 1st Line Defence's extensive historical archives, library and unique geo-databases, as well as internet resources, and is researched and compiled by UXO specialists and graduate researchers.

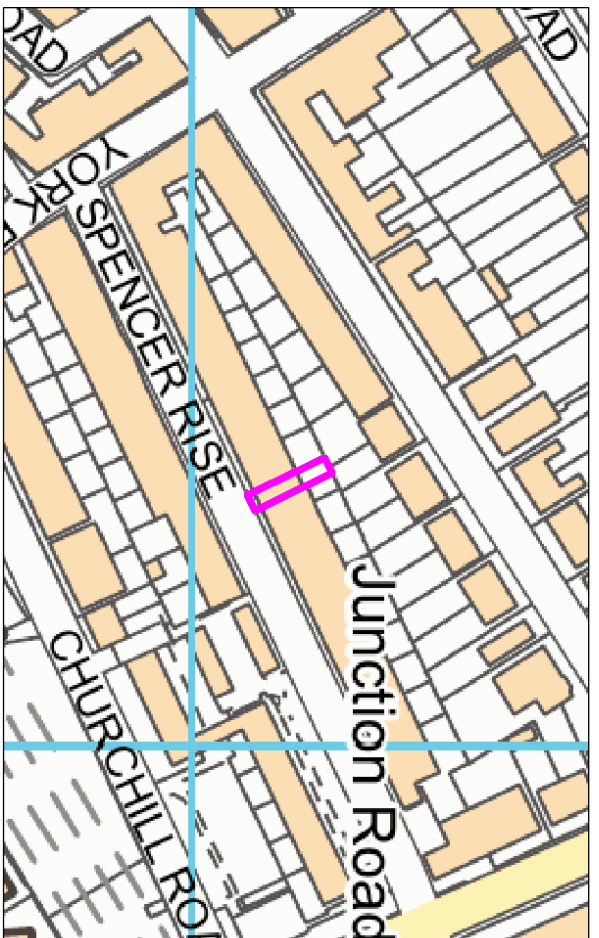
The assessment directly follows CIRIA C681 guidelines "Unexploded Ordnance, a Guide for the Construction Industry".

The document will therefore assess the following factors:

- Basic Site Data
- Previous Military Use
- Indicators of potential aerial delivered UXO threat
- Consideration of any Mitigating Factors
- Extent of Proposed Intrusive Works
- Any requirement for Further Work

It should be noted that the vast majority of construction sites in the UK will have a low or negligible risk of encountering UXO and should be able to be screened out at this preliminary stage. The report is meant as a common sense 'first step' in the UXO risk management process. The content of the report and conclusions drawn are based on basic, preliminary research using the information available to 1st Line Defence at the time this report was produced. It should be noted that the only way to entirely negate risk from UXO to a project would be to support the works proposed with appropriate UXO risk mitigation measures. It is rarely possible to state that there is absolutely 'no' risk from UXO to a project.

Site Boundary





Risk Assessment Considerations	
Site location and description/current use	The site is located within the London Borough of Camden. Recent aerial imagery shows the site to comprise a terraced residential property and adjoining garden. Further terraced houses border the site to the east and west, while the gardens of properties situated along Chetwynd Road border the site to the north. Spencer Rise is situated south of the site. The site is approximately centred on the OS grid reference: TQ 2892986024 .
Are there any indicators of current/historical military activity on/close to the site?	In-house records do not indicate that the site footprint had any former military use. No features such as WWII defensive positions, encampments or firing ranges are recorded to have been located at or in the immediate vicinity of the site. In addition, no information of ordnance being stored, produced, or disposed of within the proposed site boundary could be found. The closest recorded Heavy Anti-Aircraft (HAA) battery was situated approximately 1.4km west of the site. The range of a fired projectile can be up to 15km. The risk from Anti-Aircraft projectiles is homogenous to the risk from German aerial delivered ordnance (see below).
What was the pre- and post-WWII history of the site?	Both pre- and post-war OS mapping, dated 1936 and 1952 respectively, shows the site to comprise a single residential property and garden along Spencer Road, situated south of the site. Further terraced properties are situated to the north, east and west. No obvious structural changes are noted within or bordering the site when comparing the two map editions. In post-war mapping, an area of clearance and prefabricated buildings is present approximately 30m south-east of the site.
Was the area subject to bombing during WWII?	During WWII, the site was situated within the Metropolitan Borough of St Pancras. According to official Home Office bombing statistics, this borough was subject to an overall very high density of bombing, with an average of 258.4 items of ordnance recorded per 1000 acres. This consisted of 641 high explosive bombs, eight parachute mines, 14 oil bombs, 11 phosphorus bombs, 20 V-1 pilotless aircraft and two V-2 long-range rockets, totalling 696 incidents. No positive evidence of the site sustaining any bombing could be found. The closest bomb strikes were recorded approximately 30m north and south-east of the site.
Is there any evidence of bomb damage on/close to the site?	The site is recorded as having received <i>blast damage, minor in nature</i> within London County Council (LCC) bomb damage mapping. This is likely as a result of the bomb strike recorded approximately 30m south-east of the site, as this lines up with an area of heavy damage.
To what degree would the site have been subject to access?	During the war, the site was occupied by housing. As such, it is anticipated that the site would have been subject to regular access throughout the war. Evidence of UXO is less likely to go unnoticed and unrecorded within areas of frequent access.
To what degree has the site been developed post-WWII?	Since WWII, it does not appear that the site has sustained any significant development, remaining the same terraced residential property.
What is the nature and extent of the intrusive works proposed?	The exact nature and extent of proposed works was not known at this stage but are believed to involve initial ground investigations.



Summary and Conclusions

During WWII, the site was situated within the Metropolitan Borough of St Pancras. According to official Home Office bombing statistics, this borough was subject to an overall very high density of bombing, with an average of 258.4 items of ordnance recorded per 1,000 acres. No positive evidence of the site sustaining any bombing could be found. The closest bomb strikes were recorded approximately 30m north and south-east of the site.

The site is recorded as having received *blast damage, minor in nature* within LCC bomb damage mapping. This is likely as a result of the bomb strike recorded approximately 30m south-east of the site, as this lines up with an area of heavy damage. It is anticipated that the site would have been subject to regular access throughout the war. Evidence of UXO is less likely to go unnoticed and unrecorded within areas of frequent access.

Recommendations

Given the findings of this preliminary report, it is not considered likely that undertaking further study in the form of a Detailed UXO Risk Assessment would significantly alter the findings of low/minimal risk from UXO at this site. Therefore, **no further research** is recommended.

However, because the risk of encountering UXO can never be entirely discounted, the following actions are recommended as a precaution:

- All ground operatives to be made aware of potential UXO risk, what to look out for, and what to do in the event that they encounter a suspect item. Utilise UXO Tool Box Talk attached with this report as a minimum, or contact 1st Line Defence to arrange a Site Specific UXO Safety and Awareness Briefing.
- Compile a UXO Risk Management Plan for the site. Similar to a Fire Risk Assessment, this document should outline site emergency response procedures, means of raising alarm, key contact details etc. Contact 1st Line Defence for a free template and guidance document.

If the client has any anecdotal or empirical evidence of UXO risk on site, please contact 1st Line Defence.

It should be noted that although the risk from unexploded ordnance on this site has been assessed as low/minimal, this does not mean there is 'no' risk of encountering UXO. This preliminary report has been undertaken with due diligence, and all reasonable care has been taken to access and analyse relevant historical information. By necessity, when dealing with historical evidence, and when making assessments of UXO risk, various assumptions have to be made which we have discussed and justified within this report. Our reports take a common-sense and practical approach to the assessment of UXO risk, and we strive to be reasonable and pragmatic in our conclusions. As referenced, it would be possible to undertake further research into this site, but based on the evidence to hand, this is not deemed strictly necessary, and no reasonably justifiable requirement for proactive on-site mitigation has been identified.

It should however be stressed that if any suspect items are encountered during the proposed works, 1st Line Defence should be contacted for advice/assistance, and to re-assess the risk as necessary. Should the scope of works change or additional works be proposed, 1st Line Defence should be contacted to re-evaluate the risk.

This report has been prepared by 1st Line Defence Limited with all reasonable care and skill. The report contains historical data and information from third party sources. 1st Line Defence Limited has sought to verify the accuracy and comprehensiveness of this information where possible but cannot be held accountable for any inherent errors. Furthermore, whilst every reasonable effort has been made to locate and access all relevant historical information, 1st Line Defence cannot be held responsible for any changes to risk level or mitigation recommendations resulting from documentation or other information which may come to light at a later date.

This report was written by, is owned by and is copyrighted to 1st Line Defence Limited. It contains important 1st Line Defence information which is disclosed only for the purposes of the client's evaluation and assessment of the project to which the report is about. The contents of this report shall not, in whole or in part be used for any other purpose apart from the assessment and evaluation of the project; be relied upon in any way by the person other than the client; be disclosed to any affiliate of the client's company who is not required to know such information, nor to any third party person, organisation or government, be copied or stored in any retrieval system, be reproduced or transmitted in any form by photocopying or any optical, electronic, mechanical or other means, without prior written consent of the Managing Director, 1st Line Defence Limited, Unit 3, Maple Park, Essex Road, Hoddeston EN11 0EX. Accordingly, no responsibility or liability is accepted by 1st Line Defence towards any other person in respect of the use of this report or reliance on the information contained within it, except as may be designated by law for any matter outside the scope of this report.

1st Line Defence

Unit 3, Maple Park
Essex Road, Hoddesdon
Hertfordshire EN11 0EX

Call +44 (0) 1992 245 020

Email info@1stlinedefence.co.uk

Web www.1stlinedefence.co.uk



1ST LINE DEFENCE



appendix d

Ground Movement Assessment

PDisp Outputs

- Short Term Movement Plot
- Overall Term Movement Plot
- Tabular Inputs and Outputs

31 Spencer Rise Ground Movement Assessment Short Term Movement

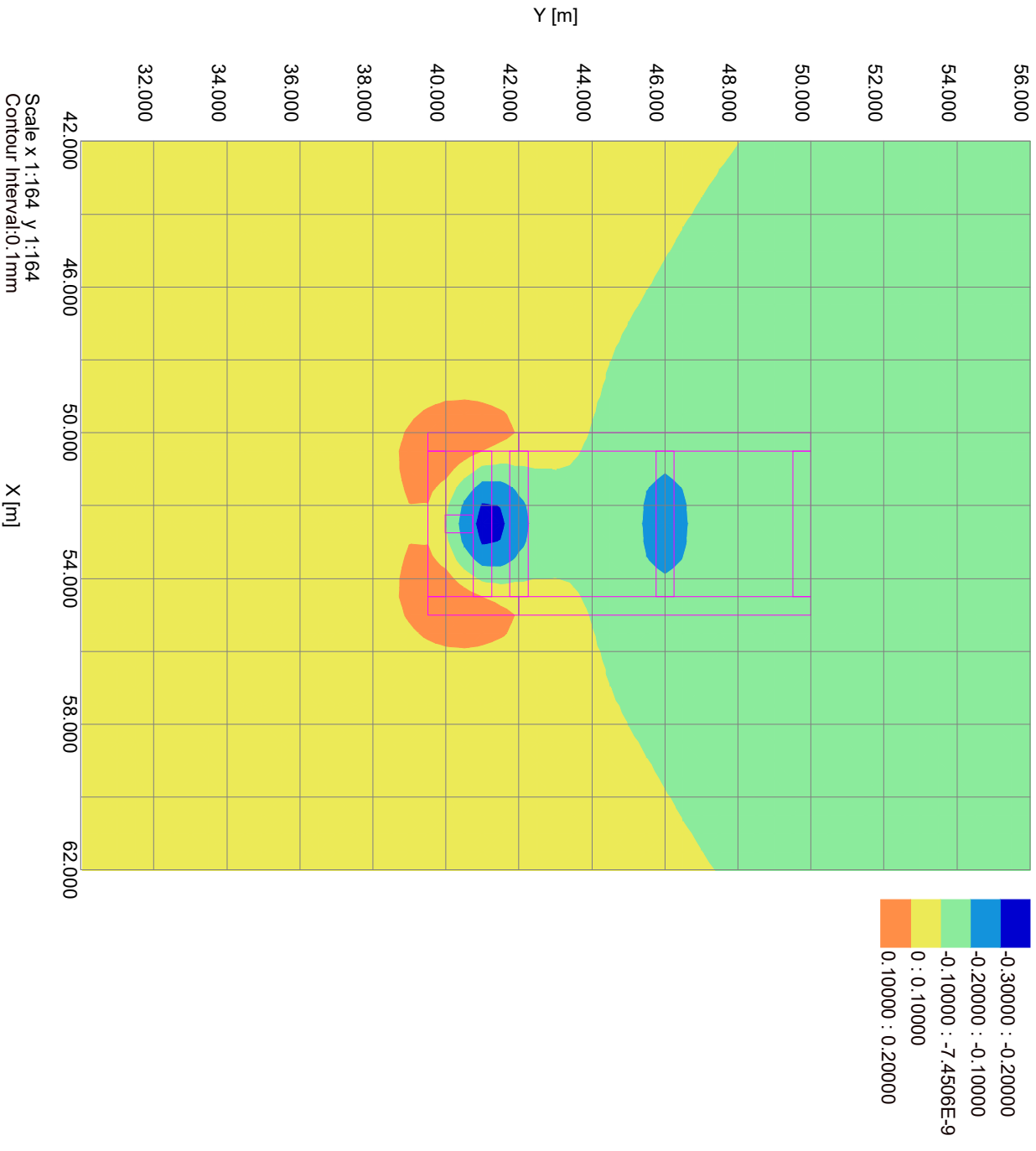
Drg. Ref.
Made by
AT

Date

Checked

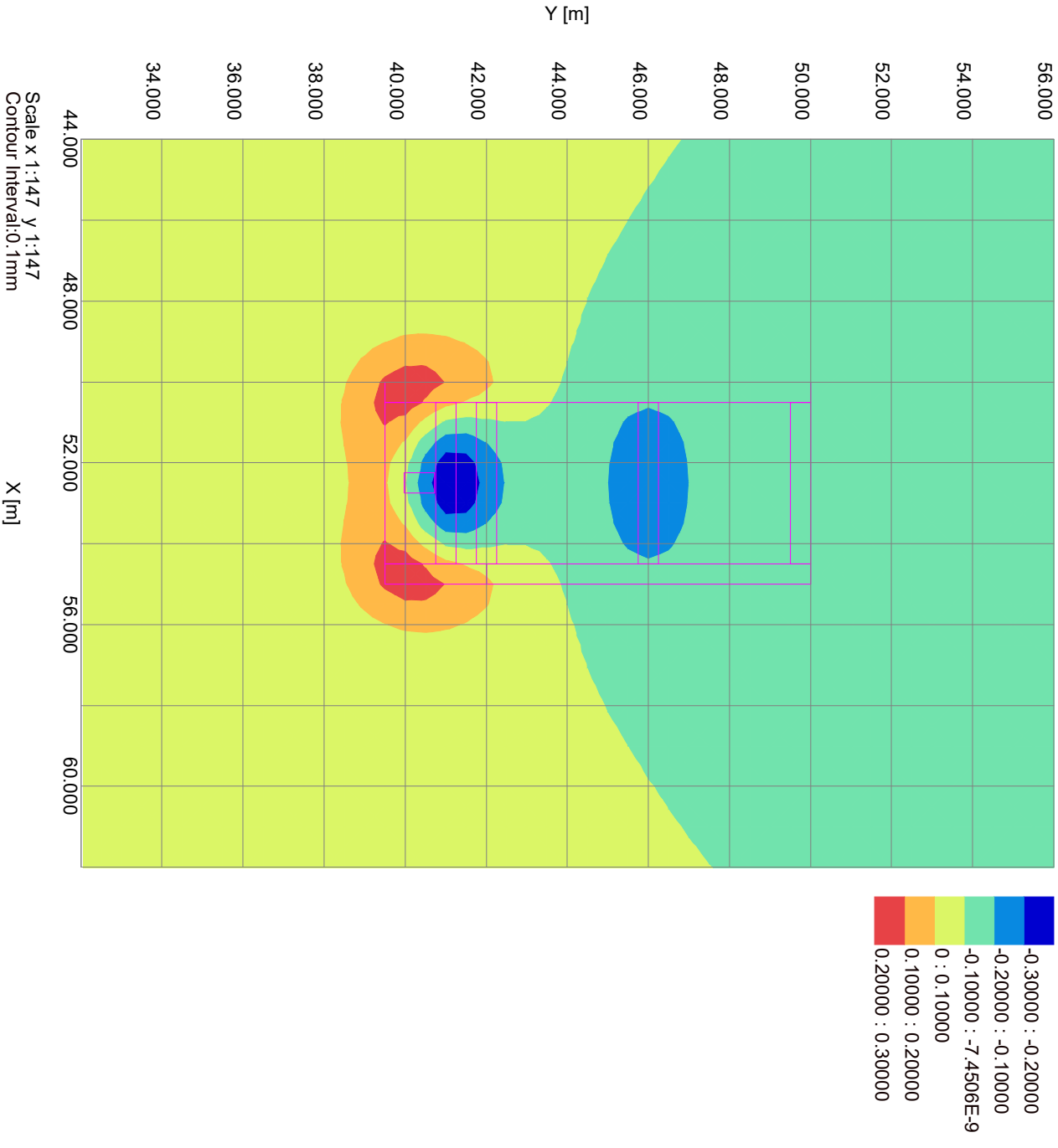
Date

Settlement Contours : Grid 1 at 0.00000m



Job No.	Sheet No.	Rev.	
Dwg. Ref.			
Made by	Date	Checked	Date
AT			

Settlement Contours : Grid 1 at 0.00000m





GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
	Date	Date

Titles

Job No.: J25310
 Job Title: 31 Spencer Rise
 Sub-title: Ground Movement Assessment
 Calculation Heading: Overall Term Movement
 Initials: AT
 Checker: AT
 Date Saved:
 Date Checked:
 Notes:
 File Name: PDISP - Overall Term.pdd
 File Path: G:\PROJECTS\2025\J25310 - 31 Spencer Rise, NW5\GMA - Rep Rev 2

History

Date	Time	BY	Notes
04-Mar-2026	07:19	Alex Taylor	New
04-Mar-2026	08:07	Alex Taylor	
20-Mar-2026	09:10	Alex Taylor	

Analysis Options

General

Global Poisson's ratio: 0.20
 Maximum allowable ratio between values of E: 1.5
 Horizontal rigid boundary level: -72.00 [m OD]
 Displacements at load centroids: Yes
 GSA piled raft data : No

Elastic

Elastic : Yes

Consolidation

Consolidation : No

Soil Profiles Overall Term Soil Profile

Layer ref.	Name	Level at top	Number of intermediate displacement levels	Youngs Modulus : Top	Youngs Modulus : Btm.	Poissons ratio	Non-linear curve
1	Made Ground	0.0	5	10000. [kN/m ²]	10000. [kN/m ²]	0.20000	None
2	London Clay	-1.0000	5	25312. [kN/m ²]	365630. [kN/m ²]	0.20000	None

Soil Profiles Short Term Soil Profile

Layer ref.	Name	Level at top	Number of intermediate displacement levels	Youngs Modulus : Top	Youngs Modulus : Btm.	Poissons ratio	Non-linear curve
1	Made Ground	0.0	5	10000. [kN/m ²]	10000. [kN/m ²]	0.50000	None
2	London Clay	-1.0000	5	33750. [kN/m ²]	487500. [kN/m ²]	0.50000	None

Soil Zones

Zone Name	X min [m]	X max [m]	Y min [m]	Y max [m]	Profile



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
Dig. Ref.		
Made by	Date	Checked
AT		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[MOD]	[mm]	[MOD]	[kN/m ²]	[kN/m ²]	[µ]

None

Results : Total : Load Centres : Rectangular

Results : Immediate : Displacement Data : Grids

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[MOD]	[mm]	[MOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	40.00000	25.00000	0.00000	0.00068	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	25.00000	0.00000	0.00071	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	25.00000	0.00000	0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	25.00000	0.00000	0.00077	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	25.00000	0.00000	0.00080	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	25.00000	0.00000	0.00083	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	25.00000	0.00000	0.00086	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	25.00000	0.00000	0.00089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	25.00000	0.00000	0.00092	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	25.00000	0.00000	0.00095	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	25.00000	0.00000	0.00099	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	25.00000	0.00000	0.00102	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	25.00000	0.00000	0.00105	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	25.00000	0.00000	0.00108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	25.00000	0.00000	0.00110	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	25.00000	0.00000	0.00113	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	25.00000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	25.00000	0.00000	0.00118	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	25.00000	0.00000	0.00120	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	25.00000	0.00000	0.00122	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	25.00000	0.00000	0.00123	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	25.00000	0.00000	0.00125	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	25.00000	0.00000	0.00126	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	25.00000	0.00000	0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	25.00000	0.00000	0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	25.00000	0.00000	0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	25.00000	0.00000	0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	25.00000	0.00000	0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	25.00000	0.00000	0.00126	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	25.00000	0.00000	0.00125	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	25.00000	0.00000	0.00123	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	25.00000	0.00000	0.00122	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	25.00000	0.00000	0.00120	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	25.00000	0.00000	0.00118	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	25.00000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	25.00000	0.00000	0.00113	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	25.00000	0.00000	0.00110	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	25.00000	0.00000	0.00108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	25.00000	0.00000	0.00108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	25.00000	0.00000	0.00102	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	25.00000	0.00000	0.00099	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	25.00000	0.00000	0.00095	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	25.00000	0.00000	0.00092	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	25.00000	0.00000	0.00089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	25.00000	0.00000	0.00089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	25.00000	0.00000	0.00083	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	25.00000	0.00000	0.00080	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	25.00000	0.00000	0.00077	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	25.00000	0.00000	0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	25.00000	0.00000	0.00071	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	25.00000	0.00000	0.00068	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	25.50000	0.00000	0.00071	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	25.50000	0.00000	0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	25.50000	0.00000	0.00077	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	25.50000	0.00000	0.00081	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	25.50000	0.00000	0.00084	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[u]
1	Ground level Grid	42.50000	25.50000	0.00000	0.00087	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	25.50000	0.00000	0.00091	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	25.50000	0.00000	0.00094	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	25.50000	0.00000	0.00098	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	25.50000	0.00000	0.00101	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	25.50000	0.00000	0.00105	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	25.50000	0.00000	0.00108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	25.50000	0.00000	0.00112	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	25.50000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	25.50000	0.00000	0.00118	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	25.50000	0.00000	0.00121	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	25.50000	0.00000	0.00124	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	25.50000	0.00000	0.00129	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	25.50000	0.00000	0.00132	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	25.50000	0.00000	0.00131	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	25.50000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	25.50000	0.00000	0.00134	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	25.50000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	25.50000	0.00000	0.00136	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	25.50000	0.00000	0.00137	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	25.50000	0.00000	0.00137	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	25.50000	0.00000	0.00137	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	25.50000	0.00000	0.00136	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	25.50000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	25.50000	0.00000	0.00134	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	25.50000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	25.50000	0.00000	0.00131	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	25.50000	0.00000	0.00129	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	25.50000	0.00000	0.00126	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	25.50000	0.00000	0.00124	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	25.50000	0.00000	0.00121	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	25.50000	0.00000	0.00118	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	25.50000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	25.50000	0.00000	0.00112	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	25.50000	0.00000	0.00110	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	25.50000	0.00000	0.00105	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	25.50000	0.00000	0.00101	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	25.50000	0.00000	0.00098	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	25.50000	0.00000	0.00094	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	25.50000	0.00000	0.00091	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	25.50000	0.00000	0.00087	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	25.50000	0.00000	0.00084	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	25.50000	0.00000	0.00081	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	25.50000	0.00000	0.00077	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	25.50000	0.00000	0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	25.50000	0.00000	0.00071	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	26.00000	0.00000	0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	26.00000	0.00000	0.00078	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	26.00000	0.00000	0.00081	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	26.00000	0.00000	0.00085	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	26.00000	0.00000	0.00088	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	26.00000	0.00000	0.00092	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	26.00000	0.00000	0.00096	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	26.00000	0.00000	0.00100	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	26.00000	0.00000	0.00104	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	26.00000	0.00000	0.00108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	26.00000	0.00000	0.00111	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	26.00000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	26.00000	0.00000	0.00119	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	26.00000	0.00000	0.00123	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	26.00000	0.00000	0.00126	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	26.00000	0.00000	0.00130	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	26.00000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	26.00000	0.00000	0.00136	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	26.00000	0.00000	0.00138	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	26.00000	0.00000	0.00141	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	26.00000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	26.00000	0.00000	0.00144	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	26.00000	0.00000	0.00146	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	26.00000	0.00000	0.00147	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	26.00000	0.00000	0.00147	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[u]
1	Ground level Grid	52.50000	26.00000	0.00000	0.00148	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	26.00000	0.00000	0.00147	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	26.00000	0.00000	0.00147	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	26.00000	0.00000	0.00146	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	26.00000	0.00000	0.00144	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	26.00000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	26.00000	0.00000	0.00141	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	26.00000	0.00000	0.00138	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	26.00000	0.00000	0.00136	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	26.00000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	26.00000	0.00000	0.00130	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	26.00000	0.00000	0.00126	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	26.00000	0.00000	0.00123	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	26.00000	0.00000	0.00119	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	26.00000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	26.00000	0.00000	0.00111	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	26.00000	0.00000	0.00108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	26.00000	0.00000	0.00104	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	26.00000	0.00000	0.00100	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	26.00000	0.00000	0.00096	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	26.00000	0.00000	0.00092	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	26.00000	0.00000	0.00088	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	26.00000	0.00000	0.00085	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	26.00000	0.00000	0.00081	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	26.00000	0.00000	0.00078	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	26.00000	0.00000	0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	26.50000	0.00000	0.00078	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	26.50000	0.00000	0.00081	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	26.50000	0.00000	0.00085	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	26.50000	0.00000	0.00089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	26.50000	0.00000	0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	26.50000	0.00000	0.00097	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	26.50000	0.00000	0.00101	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	26.50000	0.00000	0.00106	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	26.50000	0.00000	0.00110	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	26.50000	0.00000	0.00114	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	26.50000	0.00000	0.00119	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	26.50000	0.00000	0.00123	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	26.50000	0.00000	0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	26.50000	0.00000	0.00131	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	26.50000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	26.50000	0.00000	0.00139	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	26.50000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	26.50000	0.00000	0.00146	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	26.50000	0.00000	0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	26.50000	0.00000	0.00152	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	26.50000	0.00000	0.00154	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	26.50000	0.00000	0.00156	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	26.50000	0.00000	0.00157	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	26.50000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	26.50000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	26.50000	0.00000	0.00160	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	26.50000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	26.50000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	26.50000	0.00000	0.00156	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	26.50000	0.00000	0.00156	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	26.50000	0.00000	0.00154	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	26.50000	0.00000	0.00152	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	26.50000	0.00000	0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	26.50000	0.00000	0.00146	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	26.50000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	26.50000	0.00000	0.00139	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	26.50000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	26.50000	0.00000	0.00131	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	26.50000	0.00000	0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	26.50000	0.00000	0.00123	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	26.50000	0.00000	0.00119	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	26.50000	0.00000	0.00114	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	26.50000	0.00000	0.00110	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	26.50000	0.00000	0.00106	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	26.50000	0.00000	0.00101	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD

Job No. DJ25310

Sheet No.

Rev.

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Dwg. Ref.

Made by AT

Date

Checked

Date

Table with columns: Ref., Name, x, y, z, &z, Stress: Calc., Stress: Vertical, Stress: Sum Princ., Vert. Strain. Rows include ground level grids with numerical values for coordinates and stress/strain.



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[u]
1	Ground level Grid	41.50000	29.00000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	29.00000	0.00000	0.00121	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	29.00000	0.00000	0.00128	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	29.00000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	29.00000	0.00000	0.00142	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	29.00000	0.00000	0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	29.00000	0.00000	0.00157	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	29.00000	0.00000	0.00165	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	29.00000	0.00000	0.00188	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	29.00000	0.00000	0.00195	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	29.00000	0.00000	0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	29.00000	0.00000	0.00209	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	29.00000	0.00000	0.00216	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	29.00000	0.00000	0.00222	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	29.00000	0.00000	0.00227	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	29.00000	0.00000	0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	29.00000	0.00000	0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	29.00000	0.00000	0.00236	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	29.00000	0.00000	0.00241	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	29.00000	0.00000	0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	29.00000	0.00000	0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	29.00000	0.00000	0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	29.00000	0.00000	0.00241	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	29.00000	0.00000	0.00239	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	29.00000	0.00000	0.00236	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	29.00000	0.00000	0.00232	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	29.00000	0.00000	0.00227	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	29.00000	0.00000	0.00222	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	29.00000	0.00000	0.00216	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	29.00000	0.00000	0.00219	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	29.00000	0.00000	0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	29.00000	0.00000	0.00195	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	29.00000	0.00000	0.00188	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	29.00000	0.00000	0.00180	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	29.00000	0.00000	0.00172	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	29.00000	0.00000	0.00165	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	29.00000	0.00000	0.00157	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	29.00000	0.00000	0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	29.00000	0.00000	0.00142	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	29.00000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	29.00000	0.00000	0.00128	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	29.00000	0.00000	0.00121	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	29.00000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	29.00000	0.00000	0.00109	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	29.00000	0.00000	0.00103	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	29.00000	0.00000	0.00097	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.50000	29.00000	0.00000	0.00101	-0.083333	0.0	0.0	0.0
1	Ground level Grid	66.00000	29.50000	0.00000	0.00107	-0.083333	0.0	0.0	0.0
1	Ground level Grid	66.50000	29.50000	0.00000	0.00114	-0.083333	0.0	0.0	0.0
1	Ground level Grid	67.00000	29.50000	0.00000	0.00121	-0.083333	0.0	0.0	0.0
1	Ground level Grid	67.50000	29.50000	0.00000	0.00128	-0.083333	0.0	0.0	0.0
1	Ground level Grid	68.00000	29.50000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	68.50000	29.50000	0.00000	0.00142	-0.083333	0.0	0.0	0.0
1	Ground level Grid	69.00000	29.50000	0.00000	0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	69.50000	29.50000	0.00000	0.00157	-0.083333	0.0	0.0	0.0
1	Ground level Grid	70.00000	29.50000	0.00000	0.00167	-0.083333	0.0	0.0	0.0
1	Ground level Grid	70.50000	29.50000	0.00000	0.00176	-0.083333	0.0	0.0	0.0
1	Ground level Grid	71.00000	29.50000	0.00000	0.00185	-0.083333	0.0	0.0	0.0
1	Ground level Grid	71.50000	29.50000	0.00000	0.00194	-0.083333	0.0	0.0	0.0
1	Ground level Grid	72.00000	29.50000	0.00000	0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	72.50000	29.50000	0.00000	0.00211	-0.083333	0.0	0.0	0.0
1	Ground level Grid	73.00000	29.50000	0.00000	0.00219	-0.083333	0.0	0.0	0.0
1	Ground level Grid	73.50000	29.50000	0.00000	0.00227	-0.083333	0.0	0.0	0.0
1	Ground level Grid	74.00000	29.50000	0.00000	0.00235	-0.083333	0.0	0.0	0.0
1	Ground level Grid	74.50000	29.50000	0.00000	0.00241	-0.083333	0.0	0.0	0.0
1	Ground level Grid	75.00000	29.50000	0.00000	0.00248	-0.083333	0.0	0.0	0.0
1	Ground level Grid	75.50000	29.50000	0.00000	0.00253	-0.083333	0.0	0.0	0.0
1	Ground level Grid	76.00000	29.50000	0.00000	0.00258	-0.083333	0.0	0.0	0.0
1	Ground level Grid	76.50000	29.50000	0.00000	0.00261	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Stress: Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	51.50000	29.50000	0.00000	0.00264	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	29.50000	0.00000	0.00266	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	29.50000	0.00000	0.00266	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	29.50000	0.00000	0.00266	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	29.50000	0.00000	0.00264	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	29.50000	0.00000	0.00261	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	29.50000	0.00000	0.00258	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	29.50000	0.00000	0.00253	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	29.50000	0.00000	0.00248	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	29.50000	0.00000	0.00241	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	29.50000	0.00000	0.00235	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	29.50000	0.00000	0.00227	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	29.50000	0.00000	0.00219	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	29.50000	0.00000	0.00211	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	29.50000	0.00000	0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	29.50000	0.00000	0.00194	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	29.50000	0.00000	0.00185	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	29.50000	0.00000	0.00176	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	29.50000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	29.50000	0.00000	0.00151	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	29.50000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	29.50000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	29.50000	0.00000	0.00128	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	29.50000	0.00000	0.00121	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	29.50000	0.00000	0.00114	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	29.50000	0.00000	0.00107	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	29.50000	0.00000	0.00101	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	30.00000	0.00000	0.00151	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	30.00000	0.00000	0.00112	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	30.00000	0.00000	0.00119	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	30.00000	0.00000	0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	30.00000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	30.00000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	30.00000	0.00000	0.00151	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	30.00000	0.00000	0.00160	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	30.00000	0.00000	0.00169	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	30.00000	0.00000	0.00179	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	30.00000	0.00000	0.00189	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	30.00000	0.00000	0.00199	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	30.00000	0.00000	0.00206	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	30.00000	0.00000	0.00218	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	30.00000	0.00000	0.00228	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	30.00000	0.00000	0.00238	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	30.00000	0.00000	0.00247	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	30.00000	0.00000	0.00256	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	30.00000	0.00000	0.00264	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	30.00000	0.00000	0.00271	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	30.00000	0.00000	0.00277	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	30.00000	0.00000	0.00283	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	30.00000	0.00000	0.00287	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	30.00000	0.00000	0.00290	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	30.00000	0.00000	0.00292	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	30.00000	0.00000	0.00293	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	30.00000	0.00000	0.00292	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	30.00000	0.00000	0.00290	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	30.00000	0.00000	0.00287	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	30.00000	0.00000	0.00283	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	30.00000	0.00000	0.00277	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	30.00000	0.00000	0.00271	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	30.00000	0.00000	0.00264	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	30.00000	0.00000	0.00256	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	30.00000	0.00000	0.00247	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	30.00000	0.00000	0.00238	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	30.00000	0.00000	0.00228	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	30.00000	0.00000	0.00218	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	30.00000	0.00000	0.00208	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	30.00000	0.00000	0.00199	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	30.00000	0.00000	0.00189	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	30.00000	0.00000	0.00179	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	30.00000	0.00000	0.00169	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	61.50000	30.00000	0.00000	0.00160	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	30.00000	0.00000	0.00151	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	30.00000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	30.00000	0.00000	0.00135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	30.00000	0.00000	0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	30.00000	0.00000	0.00119	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	30.00000	0.00000	0.00112	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	30.00000	0.00000	0.00106	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	30.50000	0.00000	0.00110	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	30.50000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	30.50000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	30.50000	0.00000	0.00142	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	30.50000	0.00000	0.00151	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	30.50000	0.00000	0.00160	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	30.50000	0.00000	0.00170	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	30.50000	0.00000	0.00180	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	30.50000	0.00000	0.00191	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	30.50000	0.00000	0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	30.50000	0.00000	0.00213	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	30.50000	0.00000	0.00225	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	30.50000	0.00000	0.00236	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	30.50000	0.00000	0.00247	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	30.50000	0.00000	0.00258	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	30.50000	0.00000	0.00269	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	30.50000	0.00000	0.00279	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	30.50000	0.00000	0.00288	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	30.50000	0.00000	0.00297	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	30.50000	0.00000	0.00304	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	30.50000	0.00000	0.00311	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	30.50000	0.00000	0.00316	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	30.50000	0.00000	0.00319	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	30.50000	0.00000	0.00322	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	30.50000	0.00000	0.00321	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	30.50000	0.00000	0.00316	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	30.50000	0.00000	0.00319	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	30.50000	0.00000	0.00316	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	30.50000	0.00000	0.00321	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	30.50000	0.00000	0.00304	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	30.50000	0.00000	0.00297	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	30.50000	0.00000	0.00288	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	30.50000	0.00000	0.00279	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	30.50000	0.00000	0.00269	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	30.50000	0.00000	0.00258	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	30.50000	0.00000	0.00247	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	30.50000	0.00000	0.00236	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	30.50000	0.00000	0.00225	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	30.50000	0.00000	0.00213	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	30.50000	0.00000	0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	30.50000	0.00000	0.00191	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	30.50000	0.00000	0.00180	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	30.50000	0.00000	0.00170	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	30.50000	0.00000	0.00160	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	30.50000	0.00000	0.00151	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	30.50000	0.00000	0.00142	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	30.50000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	30.50000	0.00000	0.00125	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	30.50000	0.00000	0.00117	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	30.50000	0.00000	0.00110	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	31.00000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	31.00000	0.00000	0.00123	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	31.00000	0.00000	0.00131	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	31.00000	0.00000	0.00140	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	31.00000	0.00000	0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	31.00000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	31.00000	0.00000	0.00170	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	31.00000	0.00000	0.00181	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	31.00000	0.00000	0.00192	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	31.00000	0.00000	0.00204	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	31.00000	0.00000	0.00217	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	31.00000	0.00000	0.00230	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	46.50000	31.00000	0.00000	0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	31.00000	0.00000	0.00256	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	31.00000	0.00000	0.00269	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	31.00000	0.00000	0.00281	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	31.00000	0.00000	0.00294	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	31.00000	0.00000	0.00305	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	31.00000	0.00000	0.00316	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	31.00000	0.00000	0.00326	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	31.00000	0.00000	0.00335	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	31.00000	0.00000	0.00342	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	31.00000	0.00000	0.00348	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	31.00000	0.00000	0.00352	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	31.00000	0.00000	0.00355	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	31.00000	0.00000	0.00356	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	31.00000	0.00000	0.00355	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	31.00000	0.00000	0.00352	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	31.00000	0.00000	0.00348	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	31.00000	0.00000	0.00342	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	31.00000	0.00000	0.00335	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	31.00000	0.00000	0.00316	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	31.00000	0.00000	0.00305	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	31.00000	0.00000	0.00294	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	31.00000	0.00000	0.00281	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	31.00000	0.00000	0.00269	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	31.00000	0.00000	0.00256	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	31.00000	0.00000	0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	31.00000	0.00000	0.00230	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	31.00000	0.00000	0.00217	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	31.00000	0.00000	0.00204	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	31.00000	0.00000	0.00192	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	31.00000	0.00000	0.00181	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	31.00000	0.00000	0.00170	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	31.00000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	31.00000	0.00000	0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	31.00000	0.00000	0.00140	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	31.00000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	31.00000	0.00000	0.00123	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	31.00000	0.00000	0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	31.50000	0.00000	0.00120	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	31.50000	0.00000	0.00128	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	31.50000	0.00000	0.00137	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	31.50000	0.00000	0.00147	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	31.50000	0.00000	0.00157	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	31.50000	0.00000	0.00168	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	31.50000	0.00000	0.00180	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	31.50000	0.00000	0.00192	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	31.50000	0.00000	0.00205	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	31.50000	0.00000	0.00218	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	31.50000	0.00000	0.00233	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	31.50000	0.00000	0.00247	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	31.50000	0.00000	0.00262	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	31.50000	0.00000	0.00277	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	31.50000	0.00000	0.00292	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	31.50000	0.00000	0.00307	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	31.50000	0.00000	0.00321	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	31.50000	0.00000	0.00335	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	31.50000	0.00000	0.00347	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	31.50000	0.00000	0.00359	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	31.50000	0.00000	0.00369	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	31.50000	0.00000	0.00378	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	31.50000	0.00000	0.00385	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	31.50000	0.00000	0.00390	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	31.50000	0.00000	0.00394	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	31.50000	0.00000	0.00393	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	31.50000	0.00000	0.00393	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	31.50000	0.00000	0.00390	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	31.50000	0.00000	0.00385	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	31.50000	0.00000	0.00378	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	31.50000	0.00000	0.00369	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	31.50000	0.00000	0.00359	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	56.50000	31.50000	0.00000	0.00347	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	31.50000	0.00000	0.00335	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	31.50000	0.00000	0.00321	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	31.50000	0.00000	0.00307	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	31.50000	0.00000	0.00292	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	31.50000	0.00000	0.00277	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	31.50000	0.00000	0.00262	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	31.50000	0.00000	0.00247	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	31.50000	0.00000	0.00233	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	31.50000	0.00000	0.00218	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	31.50000	0.00000	0.00205	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	31.50000	0.00000	0.00192	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	31.50000	0.00000	0.00180	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	31.50000	0.00000	0.00168	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	31.50000	0.00000	0.00157	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	31.50000	0.00000	0.00147	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	31.50000	0.00000	0.00137	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	31.50000	0.00000	0.00128	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	31.50000	0.00000	0.00120	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	32.00000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	32.00000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	32.00000	0.00000	0.00154	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	32.00000	0.00000	0.00165	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	32.00000	0.00000	0.00177	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	32.00000	0.00000	0.00190	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	32.00000	0.00000	0.00204	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	32.00000	0.00000	0.00218	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	32.00000	0.00000	0.00234	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	32.00000	0.00000	0.00249	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	32.00000	0.00000	0.00266	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	32.00000	0.00000	0.00283	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	32.00000	0.00000	0.00300	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	32.00000	0.00000	0.00318	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	32.00000	0.00000	0.00335	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	32.00000	0.00000	0.00351	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	32.00000	0.00000	0.00367	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	32.00000	0.00000	0.00382	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	32.00000	0.00000	0.00396	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	32.00000	0.00000	0.00408	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	32.00000	0.00000	0.00418	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	32.00000	0.00000	0.00426	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	32.00000	0.00000	0.00436	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	32.00000	0.00000	0.00437	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	32.00000	0.00000	0.00436	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	32.00000	0.00000	0.00432	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	32.00000	0.00000	0.00426	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	32.00000	0.00000	0.00418	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	32.00000	0.00000	0.00418	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	32.00000	0.00000	0.00396	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	32.00000	0.00000	0.00382	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	32.00000	0.00000	0.00367	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	32.00000	0.00000	0.00351	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	32.00000	0.00000	0.00335	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	32.00000	0.00000	0.00318	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	32.00000	0.00000	0.00300	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	32.00000	0.00000	0.00286	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	32.00000	0.00000	0.00266	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	32.00000	0.00000	0.00249	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	32.00000	0.00000	0.00234	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	32.00000	0.00000	0.00218	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	32.00000	0.00000	0.00204	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	32.00000	0.00000	0.00190	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	32.00000	0.00000	0.00177	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	32.00000	0.00000	0.00165	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	32.00000	0.00000	0.00154	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	32.00000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	32.00000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	32.00000	0.00000	0.00124	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	32.50000	0.00000	0.00129	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD

Job No. DJ25310

Sheet No.

Rev.

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Dwg. Ref.

Made by AT

Date

Checked

Date

Table with columns: Ref., Name, x, y, z, &z, Stress: Calc., Stress: Vertical, Stress: Sum Princ., Vert. Strain. Rows include ground level grids with numerical values for coordinates and stress/strain.



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	50.50000	33.00000	0.00000	0.00516	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	33.00000	0.00000	0.00528	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	33.00000	0.00000	0.00536	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	33.00000	0.00000	0.00541	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	33.00000	0.00000	0.00543	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	33.00000	0.00000	0.00541	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	33.00000	0.00000	0.00536	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	33.00000	0.00000	0.00528	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	33.00000	0.00000	0.00516	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	33.00000	0.00000	0.00485	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	33.00000	0.00000	0.00466	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	33.00000	0.00000	0.00445	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	33.00000	0.00000	0.00423	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	33.00000	0.00000	0.00400	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	33.00000	0.00000	0.00377	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	33.00000	0.00000	0.00354	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	33.00000	0.00000	0.00331	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	33.00000	0.00000	0.00308	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	33.00000	0.00000	0.00287	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	33.00000	0.00000	0.00266	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	33.00000	0.00000	0.00247	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	33.00000	0.00000	0.00229	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	33.00000	0.00000	0.00212	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	33.00000	0.00000	0.00196	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	33.00000	0.00000	0.00181	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	33.00000	0.00000	0.00168	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	33.00000	0.00000	0.00155	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	33.00000	0.00000	0.00144	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	33.00000	0.00000	0.00133	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	33.50000	0.00000	0.00138	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	33.50000	0.00000	0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	33.50000	0.00000	0.00162	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	33.50000	0.00000	0.00175	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	33.50000	0.00000	0.00190	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	33.50000	0.00000	0.00223	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	33.50000	0.00000	0.00242	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	33.50000	0.00000	0.00262	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	33.50000	0.00000	0.00284	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	33.50000	0.00000	0.00307	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	33.50000	0.00000	0.00332	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	33.50000	0.00000	0.00357	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	33.50000	0.00000	0.00384	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	33.50000	0.00000	0.00411	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	33.50000	0.00000	0.00438	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	33.50000	0.00000	0.00465	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	33.50000	0.00000	0.00491	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	33.50000	0.00000	0.00516	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	33.50000	0.00000	0.00539	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	33.50000	0.00000	0.00559	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	33.50000	0.00000	0.00577	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	33.50000	0.00000	0.00590	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	33.50000	0.00000	0.00600	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	33.50000	0.00000	0.00608	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	33.50000	0.00000	0.00606	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	33.50000	0.00000	0.00600	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	33.50000	0.00000	0.00590	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	33.50000	0.00000	0.00577	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	33.50000	0.00000	0.00559	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	33.50000	0.00000	0.00539	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	33.50000	0.00000	0.00516	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	33.50000	0.00000	0.00491	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	33.50000	0.00000	0.00465	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	33.50000	0.00000	0.00438	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	33.50000	0.00000	0.00411	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	33.50000	0.00000	0.00384	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	33.50000	0.00000	0.00357	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	33.50000	0.00000	0.00332	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	33.50000	0.00000	0.00307	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD

Job No. DJ25310

Sheet No.

Rev.

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Dwg. Ref. Made by AT

Date

Checked

Date

Table with columns: Ref., Name, x, y, z, sz, Stress: Calc., Stress: Vertical, Stress: Sum Princ., Vert. Strain. Rows include ground level grids with numerical values for coordinates and stress/strain.



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	55.50000	35.00000	0.00000	0.00810	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	35.00000	0.00000	0.00770	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	35.00000	0.00000	0.00726	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	35.00000	0.00000	0.00678	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	35.00000	0.00000	0.00630	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	35.00000	0.00000	0.00582	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	35.00000	0.00000	0.00535	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	35.00000	0.00000	0.00491	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	35.00000	0.00000	0.00449	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	35.00000	0.00000	0.00410	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	35.00000	0.00000	0.00374	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	35.00000	0.00000	0.00341	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	35.00000	0.00000	0.00310	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	35.00000	0.00000	0.00283	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	35.00000	0.00000	0.00257	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	35.00000	0.00000	0.00235	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	35.00000	0.00000	0.00214	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	35.00000	0.00000	0.00195	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	35.00000	0.00000	0.00179	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	35.00000	0.00000	0.00163	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	35.00000	0.00000	0.00150	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	35.50000	0.00000	0.00153	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	35.50000	0.00000	0.00167	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	35.50000	0.00000	0.00183	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	35.50000	0.00000	0.00201	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	35.50000	0.00000	0.00221	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	35.50000	0.00000	0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	35.50000	0.00000	0.00268	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	35.50000	0.00000	0.00296	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	35.50000	0.00000	0.00326	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	35.50000	0.00000	0.00360	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	35.50000	0.00000	0.00397	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	35.50000	0.00000	0.00483	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	35.50000	0.00000	0.00533	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	35.50000	0.00000	0.00586	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	35.50000	0.00000	0.00644	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	35.50000	0.00000	0.00705	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	35.50000	0.00000	0.00769	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	35.50000	0.00000	0.00833	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	35.50000	0.00000	0.00894	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	35.50000	0.00000	0.00950	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	35.50000	0.00000	0.00995	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	35.50000	0.00000	0.01030	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	35.50000	0.00000	0.01053	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	35.50000	0.00000	0.01066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	35.50000	0.00000	0.01071	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	35.50000	0.00000	0.01066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	35.50000	0.00000	0.01053	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	35.50000	0.00000	0.01030	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	35.50000	0.00000	0.00995	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	35.50000	0.00000	0.00950	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	35.50000	0.00000	0.00894	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	35.50000	0.00000	0.00833	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	35.50000	0.00000	0.00769	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	35.50000	0.00000	0.00705	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	35.50000	0.00000	0.00644	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	35.50000	0.00000	0.00586	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	35.50000	0.00000	0.00533	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	35.50000	0.00000	0.00483	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	35.50000	0.00000	0.00438	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	35.50000	0.00000	0.00397	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	35.50000	0.00000	0.00360	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	35.50000	0.00000	0.00326	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	35.50000	0.00000	0.00296	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	35.50000	0.00000	0.00268	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	35.50000	0.00000	0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	35.50000	0.00000	0.00221	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	35.50000	0.00000	0.00201	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	35.50000	0.00000	0.00183	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	35.50000	0.00000	0.00167	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[mm]	[mm]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	65.00000	35.50000	0.00000	0.00153	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	36.00000	0.00000	0.00156	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	36.00000	0.00000	0.00171	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	36.00000	0.00000	0.00188	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	36.00000	0.00000	0.00206	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	36.00000	0.00000	0.00228	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	36.00000	0.00000	0.00251	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	36.00000	0.00000	0.00278	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	36.00000	0.00000	0.00308	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	36.00000	0.00000	0.00341	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	36.00000	0.00000	0.00379	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	36.00000	0.00000	0.00421	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	36.00000	0.00000	0.00467	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	36.00000	0.00000	0.00519	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	36.00000	0.00000	0.00578	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	36.00000	0.00000	0.00644	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	36.00000	0.00000	0.00717	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	36.00000	0.00000	0.00799	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	36.00000	0.00000	0.00882	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	36.00000	0.00000	0.00982	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	36.00000	0.00000	0.01074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	36.00000	0.00000	0.01157	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	36.00000	0.00000	0.01224	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	36.00000	0.00000	0.01273	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	36.00000	0.00000	0.01303	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	36.00000	0.00000	0.01318	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	36.00000	0.00000	0.01323	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	36.00000	0.00000	0.01318	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	36.00000	0.00000	0.01303	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	36.00000	0.00000	0.01273	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	36.00000	0.00000	0.01224	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	36.00000	0.00000	0.01157	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	36.00000	0.00000	0.01074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	36.00000	0.00000	0.00982	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	36.00000	0.00000	0.00882	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	36.00000	0.00000	0.00799	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	36.00000	0.00000	0.00717	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	36.00000	0.00000	0.00644	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	36.00000	0.00000	0.00578	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	36.00000	0.00000	0.00519	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	36.00000	0.00000	0.00467	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	36.00000	0.00000	0.00421	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	36.00000	0.00000	0.00379	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	36.00000	0.00000	0.00341	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	36.00000	0.00000	0.00308	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	36.00000	0.00000	0.00278	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	36.00000	0.00000	0.00251	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	36.00000	0.00000	0.00228	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	36.00000	0.00000	0.00206	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	36.00000	0.00000	0.00188	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	36.00000	0.00000	0.00171	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	36.00000	0.00000	0.00156	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	36.50000	0.00000	0.00158	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	36.50000	0.00000	0.00173	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	36.50000	0.00000	0.00191	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	36.50000	0.00000	0.00211	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	36.50000	0.00000	0.00233	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	36.50000	0.00000	0.00258	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	36.50000	0.00000	0.00287	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	36.50000	0.00000	0.00319	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	36.50000	0.00000	0.00356	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	36.50000	0.00000	0.00397	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	36.50000	0.00000	0.00443	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	36.50000	0.00000	0.00496	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	36.50000	0.00000	0.00557	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	36.50000	0.00000	0.00628	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	36.50000	0.00000	0.00710	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	36.50000	0.00000	0.00809	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	36.50000	0.00000	0.00924	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	36.50000	0.00000	0.01058	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	36.50000	0.00000	0.01207	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD

Job No.	Sheet No.	Rev.
DDJ25310		

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Dwg. Ref.	Date	Checked	Date
Made by	Date	Checked	Date
AT			

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[u]
1	Ground level Grid	49.50000	36.50000	0.00000	0.01358	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	36.50000	0.00000	0.01496	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	36.50000	0.00000	0.01605	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	36.50000	0.00000	0.01677	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	36.50000	0.00000	0.01715	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	36.50000	0.00000	0.01730	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	36.50000	0.00000	0.01734	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	36.50000	0.00000	0.01730	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	36.50000	0.00000	0.01715	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	36.50000	0.00000	0.01677	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	36.50000	0.00000	0.01605	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	36.50000	0.00000	0.01496	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	36.50000	0.00000	0.01358	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	36.50000	0.00000	0.01207	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	36.50000	0.00000	0.01058	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	36.50000	0.00000	0.00924	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	36.50000	0.00000	0.00809	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	36.50000	0.00000	0.00710	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	36.50000	0.00000	0.00628	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	36.50000	0.00000	0.00557	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	36.50000	0.00000	0.00496	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	36.50000	0.00000	0.00443	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	36.50000	0.00000	0.00397	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	36.50000	0.00000	0.00356	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	36.50000	0.00000	0.00319	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	36.50000	0.00000	0.00287	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	36.50000	0.00000	0.00258	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	36.50000	0.00000	0.00233	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	36.50000	0.00000	0.00211	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	36.50000	0.00000	0.00191	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	36.50000	0.00000	0.00173	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	36.50000	0.00000	0.00158	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	37.00000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	37.00000	0.00000	0.00175	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	37.00000	0.00000	0.00194	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	37.00000	0.00000	0.00214	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	37.00000	0.00000	0.00238	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	37.00000	0.00000	0.00264	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	37.00000	0.00000	0.00294	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	37.00000	0.00000	0.00329	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	37.00000	0.00000	0.00368	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	37.00000	0.00000	0.00413	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	37.00000	0.00000	0.00464	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	37.00000	0.00000	0.00525	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	37.00000	0.00000	0.00596	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	37.00000	0.00000	0.00682	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	37.00000	0.00000	0.00789	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	37.00000	0.00000	0.00925	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	37.00000	0.00000	0.01098	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	37.00000	0.00000	0.01314	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	37.00000	0.00000	0.01570	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	37.00000	0.00000	0.01845	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	37.00000	0.00000	0.02100	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	37.00000	0.00000	0.02292	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	37.00000	0.00000	0.02403	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	37.00000	0.00000	0.02445	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	37.00000	0.00000	0.02449	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	37.00000	0.00000	0.02446	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	37.00000	0.00000	0.02449	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	37.00000	0.00000	0.02445	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	37.00000	0.00000	0.02403	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	37.00000	0.00000	0.02292	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	37.00000	0.00000	0.02100	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	37.00000	0.00000	0.01845	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	37.00000	0.00000	0.01570	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	37.00000	0.00000	0.01314	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	37.00000	0.00000	0.01098	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	37.00000	0.00000	0.00925	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	37.00000	0.00000	0.00789	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	37.00000	0.00000	0.00682	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	37.00000	0.00000	0.00596	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[u]
1	Ground level Grid	59.50000	37.00000	0.00000	0.00525	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	37.00000	0.00000	0.00464	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	37.00000	0.00000	0.00413	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	37.00000	0.00000	0.00368	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	37.00000	0.00000	0.00329	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	37.00000	0.00000	0.00294	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	37.00000	0.00000	0.00264	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	37.00000	0.00000	0.00238	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	37.00000	0.00000	0.00214	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	37.00000	0.00000	0.00194	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	37.00000	0.00000	0.00175	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	37.00000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	37.50000	0.00000	0.00160	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	37.50000	0.00000	0.00176	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	37.50000	0.00000	0.00195	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	37.50000	0.00000	0.00216	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	37.50000	0.00000	0.00241	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	37.50000	0.00000	0.00268	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	37.50000	0.00000	0.00300	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	37.50000	0.00000	0.00336	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	37.50000	0.00000	0.00378	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	37.50000	0.00000	0.00427	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	37.50000	0.00000	0.00484	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	37.50000	0.00000	0.00552	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	37.50000	0.00000	0.00635	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	37.50000	0.00000	0.00742	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	37.50000	0.00000	0.00883	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	37.50000	0.00000	0.01076	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	37.50000	0.00000	0.01345	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	37.50000	0.00000	0.01713	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	37.50000	0.00000	0.02186	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	37.50000	0.00000	0.02724	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	37.50000	0.00000	0.03233	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	37.50000	0.00000	0.03769	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	37.50000	0.00000	0.03599	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	37.50000	0.00000	0.03786	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	37.50000	0.00000	0.03740	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	37.50000	0.00000	0.03715	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	37.50000	0.00000	0.03740	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	37.50000	0.00000	0.03769	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	37.50000	0.00000	0.03786	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	37.50000	0.00000	0.03599	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	37.50000	0.00000	0.03233	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	37.50000	0.00000	0.02724	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	37.50000	0.00000	0.02186	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	37.50000	0.00000	0.01713	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	37.50000	0.00000	0.01345	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	37.50000	0.00000	0.01076	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	37.50000	0.00000	0.00883	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	37.50000	0.00000	0.00742	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	37.50000	0.00000	0.00635	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	37.50000	0.00000	0.00552	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	37.50000	0.00000	0.00484	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	37.50000	0.00000	0.00427	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	37.50000	0.00000	0.00378	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	37.50000	0.00000	0.00336	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	37.50000	0.00000	0.00300	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	37.50000	0.00000	0.00268	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	37.50000	0.00000	0.00241	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	37.50000	0.00000	0.00216	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	37.50000	0.00000	0.00195	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	37.50000	0.00000	0.00176	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	37.50000	0.00000	0.00160	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	38.00000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	38.00000	0.00000	0.00176	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	38.00000	0.00000	0.00195	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	38.00000	0.00000	0.00217	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	38.00000	0.00000	0.00242	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	38.00000	0.00000	0.00271	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	38.00000	0.00000	0.00303	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	38.00000	0.00000	0.00341	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	44.50000	38.00000	0.00000	0.00385	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	38.00000	0.00000	0.00437	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	38.00000	0.00000	0.00499	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	38.00000	0.00000	0.00576	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	38.00000	0.00000	0.00673	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	38.00000	0.00000	0.00805	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	38.00000	0.00000	0.00992	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	38.00000	0.00000	0.01271	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	38.00000	0.00000	0.01695	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	38.00000	0.00000	0.02333	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	38.00000	0.00000	0.03229	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	38.00000	0.00000	0.04323	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	38.00000	0.00000	0.05383	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	38.00000	0.00000	0.06098	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	38.00000	0.00000	0.06328	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	38.00000	0.00000	0.06210	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	38.00000	0.00000	0.06002	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	38.00000	0.00000	0.05908	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	38.00000	0.00000	0.06210	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	38.00000	0.00000	0.06328	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	38.00000	0.00000	0.06098	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	38.00000	0.00000	0.05383	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	38.00000	0.00000	0.04323	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	38.00000	0.00000	0.03229	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	38.00000	0.00000	0.02333	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	38.00000	0.00000	0.01695	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	38.00000	0.00000	0.01271	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	38.00000	0.00000	0.00992	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	38.00000	0.00000	0.00805	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	38.00000	0.00000	0.00673	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	38.00000	0.00000	0.00576	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	38.00000	0.00000	0.00499	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	38.00000	0.00000	0.00437	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	38.00000	0.00000	0.00385	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	38.00000	0.00000	0.00341	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	38.00000	0.00000	0.00303	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	38.00000	0.00000	0.00271	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	38.00000	0.00000	0.00242	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	38.00000	0.00000	0.00217	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	38.00000	0.00000	0.00195	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	38.00000	0.00000	0.00176	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	38.00000	0.00000	0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	38.50000	0.00000	0.00175	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	38.50000	0.00000	0.00194	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	38.50000	0.00000	0.00216	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	38.50000	0.00000	0.00241	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	38.50000	0.00000	0.00271	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	38.50000	0.00000	0.00304	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	38.50000	0.00000	0.00343	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	38.50000	0.00000	0.00389	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	38.50000	0.00000	0.00444	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	38.50000	0.00000	0.00511	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	38.50000	0.00000	0.00595	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	38.50000	0.00000	0.00708	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	38.50000	0.00000	0.00869	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	38.50000	0.00000	0.01113	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	38.50000	0.00000	0.01508	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	38.50000	0.00000	0.02162	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	38.50000	0.00000	0.03241	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	38.50000	0.00000	0.04897	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	38.50000	0.00000	0.07075	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	38.50000	0.00000	0.09240	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	38.50000	0.00000	0.10569	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	38.50000	0.00000	0.10723	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	38.50000	0.00000	0.10135	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	38.50000	0.00000	0.09475	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	38.50000	0.00000	0.09202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	38.50000	0.00000	0.09475	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	38.50000	0.00000	0.10135	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Strain	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]	[μ]
1	Ground level Grid	54.50000	38.50000	0.00000	0.107223	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.50000	38.50000	0.00000	0.10569	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.00000	38.50000	0.00000	0.09240	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.50000	38.50000	0.00000	0.07075	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.00000	38.50000	0.00000	0.04897	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.50000	38.50000	0.00000	0.03241	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.00000	38.50000	0.00000	0.02162	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.50000	38.50000	0.00000	0.01508	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.00000	38.50000	0.00000	0.01113	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.50000	38.50000	0.00000	0.00869	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.00000	38.50000	0.00000	0.00708	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.50000	38.50000	0.00000	0.00595	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.00000	38.50000	0.00000	0.00511	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.50000	38.50000	0.00000	0.00444	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.00000	38.50000	0.00000	0.00389	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.50000	38.50000	0.00000	0.00343	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.00000	38.50000	0.00000	0.00271	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.50000	38.50000	0.00000	0.00241	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.00000	38.50000	0.00000	0.00216	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.00000	38.50000	0.00000	0.00194	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.50000	38.50000	0.00000	0.00158	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	65.00000	38.50000	0.00000	0.00156	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.00000	39.00000	0.00000	0.00175	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.50000	39.00000	0.00000	0.00192	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	41.00000	39.00000	0.00000	0.00214	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	41.50000	39.00000	0.00000	0.00239	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.00000	39.00000	0.00000	0.00268	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.50000	39.00000	0.00000	0.00302	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	43.00000	39.00000	0.00000	0.00342	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	43.50000	39.00000	0.00000	0.00389	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	44.00000	39.00000	0.00000	0.00445	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	44.50000	39.00000	0.00000	0.00516	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	45.00000	39.00000	0.00000	0.00608	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	46.00000	39.00000	0.00000	0.00735	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	46.50000	39.00000	0.00000	0.00926	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	47.00000	39.00000	0.00000	0.01235	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	47.50000	39.00000	0.00000	0.01766	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	48.00000	39.00000	0.00000	0.02717	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	48.50000	39.00000	0.00000	0.04408	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.00000	39.00000	0.00000	0.07217	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.50000	39.00000	0.00000	0.11152	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.00000	39.00000	0.00000	0.15101	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.50000	39.00000	0.00000	0.17145	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.00000	39.00000	0.00000	0.16624	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.50000	39.00000	0.00000	0.14759	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.00000	39.00000	0.00000	0.13044	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.50000	39.00000	0.00000	0.12373	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.00000	39.00000	0.00000	0.13044	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.50000	39.00000	0.00000	0.14759	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.00000	39.00000	0.00000	0.16624	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.50000	39.00000	0.00000	0.17145	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.00000	39.00000	0.00000	0.15101	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.50000	39.00000	0.00000	0.11152	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.00000	39.00000	0.00000	0.07217	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.50000	39.00000	0.00000	0.04408	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.00000	39.00000	0.00000	0.02717	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.50000	39.00000	0.00000	0.01766	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.00000	39.00000	0.00000	0.01235	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.50000	39.00000	0.00000	0.00926	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.00000	39.00000	0.00000	0.00735	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.50000	39.00000	0.00000	0.00608	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.00000	39.00000	0.00000	0.00516	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.50000	39.00000	0.00000	0.00445	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.00000	39.00000	0.00000	0.00389	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.50000	39.00000	0.00000	0.00342	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.00000	39.00000	0.00000	0.00302	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.50000	39.00000	0.00000	0.00268	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.00000	39.00000	0.00000	0.00239	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.50000	39.00000	0.00000	0.00214	-0.083333	0.0	0.0	0.0	



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Stress: Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[u]
1	Ground level Grid	64.00000	39.00000	0.00000	0.00192	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	39.00000	0.00000	0.00173	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	39.00000	0.00000	0.00156	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	39.50000	0.00000	0.00153	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	39.50000	0.00000	0.00169	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	39.50000	0.00000	0.00188	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	39.50000	0.00000	0.00209	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	39.50000	0.00000	0.00234	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	39.50000	0.00000	0.00263	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	39.50000	0.00000	0.00297	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	39.50000	0.00000	0.00336	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	39.50000	0.00000	0.00373	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	39.50000	0.00000	0.00430	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	39.50000	0.00000	0.00503	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	39.50000	0.00000	0.00602	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	40.00000	0.00000	0.00748	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	40.00000	0.00000	0.00982	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	40.00000	0.00000	0.01392	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	40.00000	0.00000	0.02159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	40.00000	0.00000	0.03645	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Strain	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[u]	[u]
1	Ground level Grid	48.50000	40.00000	0.00000	0.06503	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.00000	40.00000	0.00000	0.11556	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.50000	40.00000	0.00000	0.18701	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.00000	40.00000	0.00000	0.24698	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.50000	40.00000	0.00000	0.24341	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.00000	40.00000	0.00000	0.17369	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.50000	40.00000	0.00000	0.08820	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.00000	40.00000	0.00000	0.02591	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.50000	40.00000	0.00000	0.00321	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.00000	40.00000	0.00000	0.02591	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.50000	40.00000	0.00000	0.08820	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.00000	40.00000	0.00000	0.17369	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.50000	40.00000	0.00000	0.24341	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.00000	40.00000	0.00000	0.24698	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.50000	40.00000	0.00000	0.18701	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.00000	40.00000	0.00000	0.11556	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.50000	40.00000	0.00000	0.06503	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.00000	40.00000	0.00000	0.00982	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.50000	40.00000	0.00000	0.00748	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.00000	40.00000	0.00000	0.01392	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.50000	40.00000	0.00000	0.00982	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.00000	40.00000	0.00000	0.00748	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.50000	40.00000	0.00000	0.00602	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.00000	40.00000	0.00000	0.00503	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.50000	40.00000	0.00000	0.00430	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.00000	40.00000	0.00000	0.00373	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.50000	40.00000	0.00000	0.00327	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.00000	40.00000	0.00000	0.00288	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.50000	40.00000	0.00000	0.00256	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.00000	40.00000	0.00000	0.00228	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.50000	40.00000	0.00000	0.00203	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.00000	40.00000	0.00000	0.00182	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.50000	40.00000	0.00000	0.00164	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	65.00000	40.00000	0.00000	0.00148	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.00000	40.50000	0.00000	0.00148	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.50000	40.50000	0.00000	0.00158	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	41.00000	40.50000	0.00000	0.00176	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	41.50000	40.50000	0.00000	0.00196	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.00000	40.50000	0.00000	0.00219	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.50000	40.50000	0.00000	0.00245	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	43.00000	40.50000	0.00000	0.00277	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	43.50000	40.50000	0.00000	0.00314	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	44.00000	40.50000	0.00000	0.00358	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	44.50000	40.50000	0.00000	0.00412	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	45.00000	40.50000	0.00000	0.00483	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	45.50000	40.50000	0.00000	0.00580	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	46.00000	40.50000	0.00000	0.00725	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	46.50000	40.50000	0.00000	0.00963	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	47.00000	40.50000	0.00000	0.01385	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	47.50000	40.50000	0.00000	0.02186	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	48.00000	40.50000	0.00000	0.03755	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	48.50000	40.50000	0.00000	0.06776	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.00000	40.50000	0.00000	0.12034	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.50000	40.50000	0.00000	0.19021	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.00000	40.50000	0.00000	0.23396	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.50000	40.50000	0.00000	0.19093	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.00000	40.50000	0.00000	0.07105	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.50000	40.50000	0.00000	-0.05355	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.00000	40.50000	0.00000	-0.13699	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.50000	40.50000	0.00000	-0.16610	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.00000	40.50000	0.00000	-0.13699	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.50000	40.50000	0.00000	-0.05355	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.00000	40.50000	0.00000	0.07105	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.50000	40.50000	0.00000	0.19093	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.00000	40.50000	0.00000	0.23396	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.50000	40.50000	0.00000	0.19021	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.00000	40.50000	0.00000	0.12034	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.50000	40.50000	0.00000	0.06776	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.00000	40.50000	0.00000	0.03755	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.50000	40.50000	0.00000	0.02186	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.00000	40.50000	0.00000	0.01385	-0.083333	0.0	0.0	0.0	



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Strain	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	58.50000	40.50000	0.00000	0.00963	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.00000	40.50000	0.00000	0.00725	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.50000	40.50000	0.00000	0.00580	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.00000	40.50000	0.00000	0.00483	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.50000	40.50000	0.00000	0.00412	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.00000	40.50000	0.00000	0.00358	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.50000	40.50000	0.00000	0.00314	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.00000	40.50000	0.00000	0.00277	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.50000	40.50000	0.00000	0.00245	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.00000	40.50000	0.00000	0.00219	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.50000	40.50000	0.00000	0.00196	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.00000	40.50000	0.00000	0.00176	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.50000	40.50000	0.00000	0.00158	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	65.00000	40.50000	0.00000	0.00143	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.00000	41.00000	0.00000	0.00137	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.50000	41.00000	0.00000	0.00151	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	41.00000	41.00000	0.00000	0.00168	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	41.50000	41.00000	0.00000	0.00186	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.00000	41.00000	0.00000	0.00208	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.50000	41.00000	0.00000	0.00233	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	43.00000	41.00000	0.00000	0.00262	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	43.50000	41.00000	0.00000	0.00296	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	44.00000	41.00000	0.00000	0.00337	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	44.50000	41.00000	0.00000	0.00388	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	45.00000	41.00000	0.00000	0.00454	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	45.50000	41.00000	0.00000	0.00545	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	46.00000	41.00000	0.00000	0.00682	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	46.50000	41.00000	0.00000	0.00907	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	47.00000	41.00000	0.00000	0.01308	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	47.50000	41.00000	0.00000	0.02070	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	48.00000	41.00000	0.00000	0.03556	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	48.50000	41.00000	0.00000	0.06391	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.00000	41.00000	0.00000	0.11212	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.50000	41.00000	0.00000	0.17223	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.00000	41.00000	0.00000	0.19720	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.50000	41.00000	0.00000	0.12709	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.00000	41.00000	0.00000	-0.01899	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.50000	41.00000	0.00000	-0.15939	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.00000	41.00000	0.00000	-0.24791	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.50000	41.00000	0.00000	-0.27742	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.00000	41.00000	0.00000	-0.24791	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.50000	41.00000	0.00000	-0.15939	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.00000	41.00000	0.00000	-0.01899	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.50000	41.00000	0.00000	0.12709	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.00000	41.00000	0.00000	0.19720	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.50000	41.00000	0.00000	0.17223	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.00000	41.00000	0.00000	0.11212	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.50000	41.00000	0.00000	0.06391	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.00000	41.00000	0.00000	0.03556	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.50000	41.00000	0.00000	0.02070	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.00000	41.00000	0.00000	0.01308	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.50000	41.00000	0.00000	0.00907	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.00000	41.00000	0.00000	0.00682	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.50000	41.00000	0.00000	0.00545	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.00000	41.00000	0.00000	0.00454	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.50000	41.00000	0.00000	0.00388	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.00000	41.00000	0.00000	0.00337	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.50000	41.00000	0.00000	0.00296	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.00000	41.00000	0.00000	0.00262	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.50000	41.00000	0.00000	0.00233	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.00000	41.00000	0.00000	0.00208	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.50000	41.00000	0.00000	0.00186	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.00000	41.00000	0.00000	0.00168	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.50000	41.00000	0.00000	0.00151	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.00000	41.50000	0.00000	0.00130	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.50000	41.50000	0.00000	0.00143	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	41.00000	41.50000	0.00000	0.00175	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.00000	41.50000	0.00000	0.00195	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.50000	41.50000	0.00000	0.00218	-0.083333	0.0	0.0	0.0	



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]
1	Ground level Grid	43.50000	41.50000	0.00000	0.00244	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	41.50000	0.00000	0.00275	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	41.50000	0.00000	0.00312	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	41.50000	0.00000	0.00358	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	41.50000	0.00000	0.00417	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	41.50000	0.00000	0.00498	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	41.50000	0.00000	0.00619	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	41.50000	0.00000	0.00817	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	41.50000	0.00000	0.01168	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	41.50000	0.00000	0.01827	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	41.50000	0.00000	0.03093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	41.50000	0.00000	0.05467	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	41.50000	0.00000	0.09429	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	41.50000	0.00000	0.14216	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	41.50000	0.00000	0.15818	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	41.50000	0.00000	0.15818	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	41.50000	0.00000	0.09237	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	41.50000	0.00000	-0.16054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	41.50000	0.00000	-0.23641	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	41.50000	0.00000	-0.26108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	41.50000	0.00000	-0.23641	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	41.50000	0.00000	-0.16054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	41.50000	0.00000	-0.03756	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	41.50000	0.00000	0.09237	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	41.50000	0.00000	0.15818	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	41.50000	0.00000	0.14216	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	41.50000	0.00000	0.09429	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	41.50000	0.00000	0.05467	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	41.50000	0.00000	0.03093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	41.50000	0.00000	0.01827	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	41.50000	0.00000	0.01168	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	41.50000	0.00000	0.00817	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	41.50000	0.00000	0.00619	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	41.50000	0.00000	0.00498	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	41.50000	0.00000	0.00417	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	41.50000	0.00000	0.00358	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	41.50000	0.00000	0.00312	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	41.50000	0.00000	0.00275	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	41.50000	0.00000	0.00244	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	41.50000	0.00000	0.00219	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	41.50000	0.00000	0.00195	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	41.50000	0.00000	0.00175	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	41.50000	0.00000	0.00158	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	41.50000	0.00000	0.00143	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	41.50000	0.00000	0.00130	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	42.00000	0.00000	0.00122	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	42.00000	0.00000	0.00134	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	42.00000	0.00000	0.00148	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	42.00000	0.00000	0.00163	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	42.00000	0.00000	0.00181	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	42.00000	0.00000	0.00201	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	42.00000	0.00000	0.00224	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	42.00000	0.00000	0.00252	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	42.00000	0.00000	0.00284	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	42.00000	0.00000	0.00323	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	42.00000	0.00000	0.00373	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	42.00000	0.00000	0.00441	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	42.00000	0.00000	0.00541	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	42.00000	0.00000	0.00703	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	42.00000	0.00000	0.00984	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	42.00000	0.00000	0.01498	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	42.00000	0.00000	0.02460	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	42.00000	0.00000	0.04208	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	42.00000	0.00000	0.07036	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	42.00000	0.00000	0.10368	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	42.00000	0.00000	0.11499	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	42.00000	0.00000	0.07125	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	42.00000	0.00000	-0.01679	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	42.00000	0.00000	-0.10211	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	42.00000	0.00000	-0.15564	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	42.00000	0.00000	-0.17309	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Stress: Strain	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]	[μ]
1	Ground level Grid	53.50000	42.00000	0.00000	-0.15564	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.50000	42.00000	0.00000	-0.10211	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.00000	42.00000	0.00000	-0.01679	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.50000	42.00000	0.00000	0.07125	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.00000	42.00000	0.00000	0.11499	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.50000	42.00000	0.00000	0.10368	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.00000	42.00000	0.00000	0.07036	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.50000	42.00000	0.00000	0.04208	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.00000	42.00000	0.00000	0.02460	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.50000	42.00000	0.00000	0.01498	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.00000	42.00000	0.00000	0.00984	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.50000	42.00000	0.00000	0.00703	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.00000	42.00000	0.00000	0.00541	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.50000	42.00000	0.00000	0.00441	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.00000	42.00000	0.00000	0.00373	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.50000	42.00000	0.00000	0.00323	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.00000	42.00000	0.00000	0.00284	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.50000	42.00000	0.00000	0.00252	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.00000	42.00000	0.00000	0.00224	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.50000	42.00000	0.00000	0.00201	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.00000	42.00000	0.00000	0.00181	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	63.50000	42.00000	0.00000	0.00163	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.00000	42.00000	0.00000	0.00148	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	64.50000	42.00000	0.00000	0.00134	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	65.00000	42.00000	0.00000	0.00122	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.00000	42.50000	0.00000	0.00114	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	40.50000	42.50000	0.00000	0.00124	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	41.00000	42.50000	0.00000	0.00136	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	41.50000	42.50000	0.00000	0.00150	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.00000	42.50000	0.00000	0.00165	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	42.50000	42.50000	0.00000	0.00183	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	43.00000	42.50000	0.00000	0.00203	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	43.50000	42.50000	0.00000	0.00225	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	44.00000	42.50000	0.00000	0.00252	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	44.50000	42.50000	0.00000	0.00284	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	45.00000	42.50000	0.00000	0.00324	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	45.50000	42.50000	0.00000	0.00378	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	46.00000	42.50000	0.00000	0.00455	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	46.50000	42.50000	0.00000	0.00576	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	47.00000	42.50000	0.00000	0.00779	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	47.50000	42.50000	0.00000	0.01138	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	48.00000	42.50000	0.00000	0.01780	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	48.50000	42.50000	0.00000	0.02886	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.00000	42.50000	0.00000	0.04565	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	49.50000	42.50000	0.00000	0.06409	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.00000	42.50000	0.00000	0.06953	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	50.50000	42.50000	0.00000	0.04549	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.00000	42.50000	0.00000	-0.00283	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	51.50000	42.50000	0.00000	-0.05147	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.00000	42.50000	0.00000	-0.08329	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	52.50000	42.50000	0.00000	-0.09392	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.00000	42.50000	0.00000	-0.08329	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	53.50000	42.50000	0.00000	-0.08329	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.00000	42.50000	0.00000	-0.05147	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.50000	42.50000	0.00000	-0.02886	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.00000	42.50000	0.00000	-0.00283	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	54.50000	42.50000	0.00000	0.04549	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.00000	42.50000	0.00000	0.06953	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	55.50000	42.50000	0.00000	0.06409	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.00000	42.50000	0.00000	0.04565	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	56.50000	42.50000	0.00000	0.02886	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.00000	42.50000	0.00000	0.01780	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	57.50000	42.50000	0.00000	0.01138	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.00000	42.50000	0.00000	0.00779	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	58.50000	42.50000	0.00000	0.00576	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.00000	42.50000	0.00000	0.00455	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	59.50000	42.50000	0.00000	0.00378	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.00000	42.50000	0.00000	0.00324	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	60.50000	42.50000	0.00000	0.00284	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.00000	42.50000	0.00000	0.00225	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	61.50000	42.50000	0.00000	0.00203	-0.083333	0.0	0.0	0.0	
1	Ground level Grid	62.00000	42.50000	0.00000	0.00183	-0.083333	0.0	0.0	0.0	



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD

DJ25310

Job No.	Sheet No.	Rev.
Dig. Ref.		
Made by	Date	Checked
AT		

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	63.50000	42.50000	0.00000	0.00165	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	42.50000	0.00000	0.00150	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	42.50000	0.00000	0.00136	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	42.50000	0.00000	0.00124	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	42.50000	0.00000	0.00114	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	43.00000	0.00000	0.00105	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	43.00000	0.00000	0.00114	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	43.00000	0.00000	0.00124	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	43.00000	0.00000	0.00136	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	43.00000	0.00000	0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	43.00000	0.00000	0.00163	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	43.00000	0.00000	0.00179	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	43.00000	0.00000	0.00198	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	43.00000	0.00000	0.00219	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	43.50000	0.00000	0.00201	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	43.50000	0.00000	0.00221	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	43.50000	0.00000	0.00245	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	43.50000	0.00000	0.00277	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	43.50000	0.00000	0.00322	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	43.50000	0.00000	0.00390	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD

Job No. DJ25310

Sheet No.

Rev.

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Dwg. Ref.

Made by AT

Date

Checked

Date

Table with columns: Ref., Name, x, y, z, &z, Stress: Calc., Stress: Vertical, Stress: Sum Princ., Vert. Strain. Rows include ground level grids with numerical values for coordinates and stress/strain.



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD DJ25310

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Table with columns: Job No., Sheet No., Rev., Dwg. Ref., Made by, Date, Checked, Date

Main data table with columns: Ref., Name, x, y, z, sz, Stress Calc. Level, Stress Vertical, Stress Sum Princ., Vert. Strain



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD

Job No. DJ25310

Sheet No.

Rev.

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Dwg. Ref.	Date	Checked	Date
Made by AT			

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Stress: Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]
1	Ground level Grid	42.00000	45.00000	0.00000	0.00081	-0.00000	0.0	0.0	0.0
1	Ground level Grid	42.50000	45.00000	0.00000	0.00084	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	45.00000	0.00000	0.00086	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	45.00000	0.00000	0.00087	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	45.00000	0.00000	0.00087	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	45.00000	0.00000	0.00085	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	45.00000	0.00000	0.00079	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	45.00000	0.00000	0.00070	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	45.00000	0.00000	0.00054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	45.00000	0.00000	0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	45.00000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	45.00000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	45.00000	0.00000	-0.00237	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	45.00000	0.00000	-0.00510	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	45.00000	0.00000	-0.01032	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	45.00000	0.00000	-0.01972	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	45.00000	0.00000	-0.03473	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	45.00000	0.00000	-0.05426	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	45.00000	0.00000	-0.07380	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	45.00000	0.00000	-0.08863	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	45.00000	0.00000	-0.09712	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	45.00000	0.00000	-0.09980	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	45.00000	0.00000	-0.09712	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	45.00000	0.00000	-0.08863	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	45.00000	0.00000	-0.07380	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	45.00000	0.00000	-0.05426	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	45.00000	0.00000	-0.03473	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	45.00000	0.00000	-0.01972	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	45.00000	0.00000	-0.01032	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	45.00000	0.00000	-0.00510	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	45.00000	0.00000	-0.00237	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	45.00000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	45.00000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	45.00000	0.00000	0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	45.00000	0.00000	0.00054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	45.00000	0.00000	0.00070	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	45.00000	0.00000	0.00079	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	45.00000	0.00000	0.00085	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	45.00000	0.00000	0.00087	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	45.00000	0.00000	0.00087	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	45.00000	0.00000	0.00086	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	45.00000	0.00000	0.00084	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	45.00000	0.00000	0.00081	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	45.00000	0.00000	0.00078	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	45.00000	0.00000	0.00075	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	45.00000	0.00000	0.00071	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	45.00000	0.00000	0.00068	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.50000	45.00000	0.00000	0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	66.00000	45.00000	0.00000	0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	66.50000	45.00000	0.00000	0.00059	-0.083333	0.0	0.0	0.0
1	Ground level Grid	67.00000	45.00000	0.00000	0.00059	-0.083333	0.0	0.0	0.0
1	Ground level Grid	67.50000	45.00000	0.00000	0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	68.00000	45.00000	0.00000	0.00063	-0.083333	0.0	0.0	0.0
1	Ground level Grid	68.50000	45.00000	0.00000	0.00063	-0.083333	0.0	0.0	0.0
1	Ground level Grid	69.00000	45.00000	0.00000	0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	69.50000	45.00000	0.00000	0.00041	-0.083333	0.0	0.0	0.0
1	Ground level Grid	70.00000	45.00000	0.00000	0.00024	-0.083333	0.0	0.0	0.0
1	Ground level Grid	70.50000	45.00000	0.00000	-0.00001	-0.083333	0.0	0.0	0.0
1	Ground level Grid	71.00000	45.00000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	71.50000	45.00000	0.00000	-0.00102	-0.083333	0.0	0.0	0.0
1	Ground level Grid	72.00000	45.00000	0.00000	-0.00207	-0.083333	0.0	0.0	0.0
1	Ground level Grid	72.50000	45.00000	0.00000	-0.00398	-0.083333	0.0	0.0	0.0
1	Ground level Grid	73.00000	45.00000	0.00000	-0.00760	-0.083333	0.0	0.0	0.0
1	Ground level Grid	73.50000	45.00000	0.00000	-0.01463	-0.083333	0.0	0.0	0.0
1	Ground level Grid	74.00000	45.00000	0.00000	-0.02782	-0.083333	0.0	0.0	0.0
1	Ground level Grid	74.50000	45.00000	0.00000	-0.04988	-0.083333	0.0	0.0	0.0
1	Ground level Grid	75.00000	45.00000	0.00000	-0.07952	-0.083333	0.0	0.0	0.0
1	Ground level Grid	75.50000	45.00000	0.00000	-0.10899	-0.083333	0.0	0.0	0.0
1	Ground level Grid	76.00000	45.00000	0.00000	-0.13038	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	52.00000	45.50000	0.00000	-0.14194	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	45.50000	0.00000	-0.14545	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	45.50000	0.00000	-0.14194	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	45.50000	0.00000	-0.13038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	45.50000	0.00000	-0.10899	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	45.50000	0.00000	-0.07952	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	45.50000	0.00000	-0.04988	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	45.50000	0.00000	-0.02782	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	45.50000	0.00000	-0.01463	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	45.50000	0.00000	-0.00760	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	45.50000	0.00000	-0.00398	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	45.50000	0.00000	-0.00207	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	45.50000	0.00000	-0.00102	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	45.50000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	45.50000	0.00000	-0.00001	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	45.50000	0.00000	0.00024	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	45.50000	0.00000	0.00041	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	45.50000	0.00000	0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	45.50000	0.00000	0.00059	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	45.50000	0.00000	0.00063	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	45.50000	0.00000	0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	45.50000	0.00000	0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	45.50000	0.00000	0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	45.50000	0.00000	0.00065	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	45.50000	0.00000	0.00063	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	45.50000	0.00000	0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	45.50000	0.00000	0.00059	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	46.00000	0.00000	0.00051	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	46.00000	0.00000	0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	46.00000	0.00000	0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	46.00000	0.00000	0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	46.00000	0.00000	0.00051	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	46.00000	0.00000	0.00050	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	46.00000	0.00000	0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	46.00000	0.00000	0.00041	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	46.00000	0.00000	0.00034	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	46.00000	0.00000	0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	46.00000	0.00000	0.00007	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	46.00000	0.00000	-0.00015	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	46.00000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	46.00000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	46.00000	0.00000	-0.00165	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	46.00000	0.00000	-0.00285	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	46.00000	0.00000	-0.00497	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	46.00000	0.00000	-0.00897	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	46.00000	0.00000	-0.01677	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	46.00000	0.00000	-0.03165	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	46.00000	0.00000	-0.05707	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	46.00000	0.00000	-0.09172	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	46.00000	0.00000	-0.12613	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	46.00000	0.00000	-0.15069	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	46.00000	0.00000	-0.16754	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	46.00000	0.00000	-0.16366	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	46.00000	0.00000	-0.16366	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	46.00000	0.00000	-0.15069	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	46.00000	0.00000	-0.12613	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	46.00000	0.00000	-0.09172	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	46.00000	0.00000	-0.05707	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	46.00000	0.00000	-0.03165	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	46.00000	0.00000	-0.01677	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	46.00000	0.00000	-0.00897	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	46.00000	0.00000	-0.00497	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	46.00000	0.00000	-0.00285	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	46.00000	0.00000	-0.00165	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	46.00000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	46.00000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	46.00000	0.00000	-0.00015	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	46.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	46.00000	0.00000	0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	46.00000	0.00000	0.00034	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	46.00000	0.00000	0.00041	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]
1	Ground level Grid	62.250000	46.000000	0.000000	0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.500000	46.000000	0.000000	0.00050	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.000000	46.000000	0.000000	0.00051	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.500000	46.000000	0.000000	0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.000000	46.000000	0.000000	0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.500000	46.000000	0.000000	0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.000000	46.000000	0.000000	0.00051	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.500000	46.500000	0.000000	0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.000000	46.500000	0.000000	0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.500000	46.500000	0.000000	0.00041	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.000000	46.500000	0.000000	0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.500000	46.500000	0.000000	0.00029	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.000000	46.500000	0.000000	0.00022	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.000000	46.500000	0.000000	0.00012	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.000000	46.500000	0.000000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.000000	46.500000	0.000000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.000000	46.500000	0.000000	-0.00207	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.500000	46.500000	0.000000	-0.00328	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.000000	46.500000	0.000000	-0.00534	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.500000	46.500000	0.000000	-0.00911	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.000000	46.500000	0.000000	-0.01625	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.500000	46.500000	0.000000	-0.02947	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.000000	46.500000	0.000000	-0.05145	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.500000	46.500000	0.000000	-0.08089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.000000	46.500000	0.000000	-0.11007	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.500000	46.500000	0.000000	-0.13117	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.000000	46.500000	0.000000	-0.14252	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.500000	46.500000	0.000000	-0.14594	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.000000	46.500000	0.000000	-0.14252	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.500000	46.500000	0.000000	-0.13117	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.000000	46.500000	0.000000	-0.11007	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.500000	46.500000	0.000000	-0.08089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.000000	46.500000	0.000000	-0.05145	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.500000	46.500000	0.000000	-0.02947	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.000000	46.500000	0.000000	-0.01625	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.500000	46.500000	0.000000	-0.00911	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.000000	46.500000	0.000000	-0.00534	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.500000	46.500000	0.000000	-0.00328	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.000000	46.500000	0.000000	-0.00207	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.500000	46.500000	0.000000	-0.00132	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.000000	46.500000	0.000000	-0.00082	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.500000	46.500000	0.000000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.000000	46.500000	0.000000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.500000	46.500000	0.000000	-0.00002	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.000000	46.500000	0.000000	0.00012	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.500000	46.500000	0.000000	0.00022	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.000000	46.500000	0.000000	0.00029	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.500000	46.500000	0.000000	0.00035	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.000000	46.500000	0.000000	0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.500000	46.500000	0.000000	0.00041	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.000000	46.500000	0.000000	0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.500000	46.500000	0.000000	0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.000000	46.500000	0.000000	0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.500000	47.000000	0.000000	0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.000000	47.000000	0.000000	0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.500000	47.000000	0.000000	0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.000000	47.000000	0.000000	0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.500000	47.000000	0.000000	0.00005	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.000000	47.000000	0.000000	-0.00007	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.500000	47.000000	0.000000	-0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.000000	47.000000	0.000000	-0.00044	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.500000	47.000000	0.000000	-0.00071	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.000000	47.000000	0.000000	-0.00108	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD

DJ25310

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	46.50000	47.00000	0.00000	-0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	47.00000	0.00000	-0.00232	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	47.00000	0.00000	-0.00343	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	47.00000	0.00000	-0.00523	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	47.00000	0.00000	-0.00835	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	47.00000	0.00000	-0.01387	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	47.00000	0.00000	-0.02339	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	47.00000	0.00000	-0.03822	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	47.00000	0.00000	-0.05724	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	47.00000	0.00000	-0.07601	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	47.00000	0.00000	-0.09040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	47.00000	0.00000	-0.09794	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	47.00000	0.00000	-0.10040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	47.00000	0.00000	-0.09794	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	47.00000	0.00000	-0.09004	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	47.00000	0.00000	-0.07601	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	47.00000	0.00000	-0.05724	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	47.00000	0.00000	-0.03822	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	47.00000	0.00000	-0.02339	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	47.00000	0.00000	-0.01387	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	47.00000	0.00000	-0.00835	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	47.00000	0.00000	-0.00523	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	47.00000	0.00000	-0.00343	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	47.00000	0.00000	-0.00232	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	47.00000	0.00000	-0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	47.00000	0.00000	-0.00108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	47.00000	0.00000	-0.00071	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	47.00000	0.00000	-0.00044	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	47.00000	0.00000	-0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	47.00000	0.00000	-0.00007	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	47.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	47.00000	0.00000	0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	47.00000	0.00000	0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	47.00000	0.00000	0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	47.00000	0.00000	0.00030	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	47.00000	0.00000	0.00032	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	47.00000	0.00000	0.00034	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	47.00000	0.00000	0.00035	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.50000	47.00000	0.00000	0.00034	-0.083333	0.0	0.0	0.0
1	Ground level Grid	66.00000	47.00000	0.00000	0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	66.50000	47.00000	0.00000	0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	67.00000	47.00000	0.00000	0.00024	-0.083333	0.0	0.0	0.0
1	Ground level Grid	67.50000	47.00000	0.00000	0.00020	-0.083333	0.0	0.0	0.0
1	Ground level Grid	68.00000	47.00000	0.00000	0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	68.50000	47.00000	0.00000	0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	69.00000	47.00000	0.00000	-0.00009	-0.083333	0.0	0.0	0.0
1	Ground level Grid	69.50000	47.00000	0.00000	-0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	70.00000	47.00000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	70.50000	47.00000	0.00000	-0.00062	-0.083333	0.0	0.0	0.0
1	Ground level Grid	71.00000	47.00000	0.00000	-0.00090	-0.083333	0.0	0.0	0.0
1	Ground level Grid	71.50000	47.00000	0.00000	-0.00126	-0.083333	0.0	0.0	0.0
1	Ground level Grid	72.00000	47.00000	0.00000	-0.00175	-0.083333	0.0	0.0	0.0
1	Ground level Grid	72.50000	47.00000	0.00000	-0.00242	-0.083333	0.0	0.0	0.0
1	Ground level Grid	73.00000	47.00000	0.00000	-0.00338	-0.083333	0.0	0.0	0.0
1	Ground level Grid	73.50000	47.00000	0.00000	-0.00485	-0.083333	0.0	0.0	0.0
1	Ground level Grid	74.00000	47.00000	0.00000	-0.00719	-0.083333	0.0	0.0	0.0
1	Ground level Grid	74.50000	47.00000	0.00000	-0.01098	-0.083333	0.0	0.0	0.0
1	Ground level Grid	75.00000	47.00000	0.00000	-0.01694	-0.083333	0.0	0.0	0.0
1	Ground level Grid	75.50000	47.00000	0.00000	-0.02549	-0.083333	0.0	0.0	0.0
1	Ground level Grid	76.00000	47.00000	0.00000	-0.03587	-0.083333	0.0	0.0	0.0
1	Ground level Grid	76.50000	47.00000	0.00000	-0.04606	-0.083333	0.0	0.0	0.0
1	Ground level Grid	77.00000	47.00000	0.00000	-0.05394	-0.083333	0.0	0.0	0.0
1	Ground level Grid	77.50000	47.00000	0.00000	-0.05861	-0.083333	0.0	0.0	0.0
1	Ground level Grid	78.00000	47.00000	0.00000	-0.06012	-0.083333	0.0	0.0	0.0
1	Ground level Grid	78.50000	47.00000	0.00000	-0.06194	-0.083333	0.0	0.0	0.0
1	Ground level Grid	79.00000	47.00000	0.00000	-0.06333	-0.083333	0.0	0.0	0.0
1	Ground level Grid	79.50000	47.00000	0.00000	-0.06581	-0.083333	0.0	0.0	0.0
1	Ground level Grid	80.00000	47.00000	0.00000	-0.06904	-0.083333	0.0	0.0	0.0
1	Ground level Grid	80.50000	47.00000	0.00000	-0.07357	-0.083333	0.0	0.0	0.0
1	Ground level Grid	81.00000	47.00000	0.00000	-0.07946	-0.083333	0.0	0.0	0.0
1	Ground level Grid	81.50000	47.00000	0.00000	-0.08333	-0.083333	0.0	0.0	0.0
1	Ground level Grid	82.00000	47.00000	0.00000	-0.08833	-0.083333	0.0	0.0	0.0
1	Ground level Grid	82.50000	47.00000	0.00000	-0.09466	-0.083333	0.0	0.0	0.0
1	Ground level Grid	83.00000	47.00000	0.00000	-0.10198	-0.083333	0.0	0.0	0.0
1	Ground level Grid	83.50000	47.00000	0.00000	-0.11098	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD

Job No. DJ25310

Sheet No.

Rev.

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Dwg. Ref.

Made by AT

Date

Checked

Date

Table with columns: Ref., Name, x, y, z, &z, Stress: Calc., Stress: Vertical, Stress: Sum Princ., Vert. Strain. Rows 1-100.



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	41.50000	48.50000	0.00000	0.00010	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	48.50000	0.00000	0.00005	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	48.50000	0.00000	-0.00001	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	48.50000	0.00000	-0.00009	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	48.50000	0.00000	-0.00018	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	48.50000	0.00000	-0.00030	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	48.50000	0.00000	-0.00045	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	48.50000	0.00000	-0.00062	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	48.50000	0.00000	-0.00084	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	48.50000	0.00000	-0.00111	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	48.50000	0.00000	-0.00144	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	48.50000	0.00000	-0.00184	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	48.50000	0.00000	-0.00236	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	49.00000	0.00000	-0.00226	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	49.00000	0.00000	-0.00282	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	49.00000	0.00000	-0.00348	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	49.00000	0.00000	-0.00431	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	49.00000	0.00000	-0.00535	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	49.00000	0.00000	-0.00660	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	49.00000	0.00000	-0.00802	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	49.00000	0.00000	-0.00950	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Stress: Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]
1	Ground level Grid	51.50000	49.00000	0.00000	-0.01088	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	49.00000	0.00000	-0.01200	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	49.00000	0.00000	-0.01271	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	49.00000	0.00000	-0.01295	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	49.00000	0.00000	-0.01271	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	49.00000	0.00000	-0.01200	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	49.00000	0.00000	-0.01088	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	49.00000	0.00000	-0.00950	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	49.00000	0.00000	-0.00802	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	49.00000	0.00000	-0.00660	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	49.00000	0.00000	-0.00535	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	49.00000	0.00000	-0.00431	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	49.00000	0.00000	-0.00348	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	49.00000	0.00000	-0.00280	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	49.00000	0.00000	-0.00226	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	49.00000	0.00000	-0.00182	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	49.00000	0.00000	-0.00145	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	49.00000	0.00000	-0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	49.00000	0.00000	-0.00090	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	49.00000	0.00000	-0.00069	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	49.00000	0.00000	-0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	49.00000	0.00000	-0.00037	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	49.00000	0.00000	-0.00025	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	49.00000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	49.00000	0.00000	-0.00008	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	49.00000	0.00000	-0.00001	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	49.00000	0.00000	0.00004	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	49.00000	0.00000	0.00008	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	49.00000	0.00000	0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	49.50000	0.00000	0.00007	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	49.50000	0.00000	0.00003	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	49.50000	0.00000	-0.00001	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	49.50000	0.00000	-0.00006	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	49.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	49.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	49.50000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	49.50000	0.00000	-0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	49.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	49.50000	0.00000	-0.00073	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	49.50000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	49.50000	0.00000	-0.00116	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	49.50000	0.00000	-0.00144	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	49.50000	0.00000	-0.00176	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	49.50000	0.00000	-0.00214	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	49.50000	0.00000	-0.00259	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	49.50000	0.00000	-0.00311	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	49.50000	0.00000	-0.00373	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	49.50000	0.00000	-0.00445	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	49.50000	0.00000	-0.00525	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	49.50000	0.00000	-0.00612	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	49.50000	0.00000	-0.00698	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	49.50000	0.00000	-0.00777	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	49.50000	0.00000	-0.00840	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	49.50000	0.00000	-0.00880	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	49.50000	0.00000	-0.00894	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	49.50000	0.00000	-0.00880	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	49.50000	0.00000	-0.00840	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	49.50000	0.00000	-0.00777	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	49.50000	0.00000	-0.00698	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	49.50000	0.00000	-0.00612	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	49.50000	0.00000	-0.00525	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	49.50000	0.00000	-0.00445	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	49.50000	0.00000	-0.00373	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	49.50000	0.00000	-0.00311	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	49.50000	0.00000	-0.00259	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	49.50000	0.00000	-0.00214	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	49.50000	0.00000	-0.00176	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	49.50000	0.00000	-0.00144	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	49.50000	0.00000	-0.00116	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	49.50000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	49.50000	0.00000	-0.00073	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	61.50000	49.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	49.50000	0.00000	-0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	49.50000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	49.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	49.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	49.50000	0.00000	-0.00006	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	49.50000	0.00000	-0.00001	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	49.50000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	49.50000	0.00000	0.00007	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	50.00000	0.00000	-0.00003	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	50.00000	0.00000	-0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	50.00000	0.00000	-0.00005	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	50.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	50.00000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	50.00000	0.00000	-0.00025	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	50.00000	0.00000	-0.00035	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	50.00000	0.00000	-0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	50.00000	0.00000	-0.00060	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	50.00000	0.00000	-0.00079	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	50.00000	0.00000	-0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	50.00000	0.00000	-0.00140	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	50.00000	0.00000	-0.00168	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	50.00000	0.00000	-0.00201	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	50.00000	0.00000	-0.00238	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	50.00000	0.00000	-0.00280	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	50.00000	0.00000	-0.00327	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	50.00000	0.00000	-0.00379	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	50.00000	0.00000	-0.00435	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	50.00000	0.00000	-0.00491	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	50.00000	0.00000	-0.00546	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	50.00000	0.00000	-0.00595	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	50.00000	0.00000	-0.00633	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	50.00000	0.00000	-0.00657	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	50.00000	0.00000	-0.00666	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	50.00000	0.00000	-0.00657	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	50.00000	0.00000	-0.00633	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	50.00000	0.00000	-0.00595	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	50.00000	0.00000	-0.00546	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	50.00000	0.00000	-0.00491	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	50.00000	0.00000	-0.00435	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	50.00000	0.00000	-0.00379	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	50.00000	0.00000	-0.00327	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	50.00000	0.00000	-0.00280	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	50.00000	0.00000	-0.00238	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	50.00000	0.00000	-0.00201	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	50.00000	0.00000	-0.00168	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	50.00000	0.00000	-0.00140	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	50.00000	0.00000	-0.00115	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	50.00000	0.00000	-0.00094	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	50.00000	0.00000	-0.00075	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	50.00000	0.00000	-0.00060	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	50.00000	0.00000	-0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	50.00000	0.00000	-0.00035	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	50.00000	0.00000	-0.00025	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	50.00000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	50.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	50.00000	0.00000	-0.00005	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	50.00000	0.00000	-0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	50.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	50.50000	0.00000	-0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	50.50000	0.00000	-0.00004	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	50.50000	0.00000	-0.00008	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	50.50000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	50.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	50.50000	0.00000	-0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	50.50000	0.00000	-0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	50.50000	0.00000	-0.00048	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	50.50000	0.00000	-0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	50.50000	0.00000	-0.00076	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	50.50000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	45.50000	50.50000	0.00000	-0.00112	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	50.50000	0.00000	-0.00134	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	50.50000	0.00000	-0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	50.50000	0.00000	-0.00187	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	50.50000	0.00000	-0.00218	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	50.50000	0.00000	-0.00253	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	50.50000	0.00000	-0.00290	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	50.50000	0.00000	-0.00329	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	50.50000	0.00000	-0.00369	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	50.50000	0.00000	-0.00409	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	50.50000	0.00000	-0.00447	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	50.50000	0.00000	-0.00479	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	50.50000	0.00000	-0.00504	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	50.50000	0.00000	-0.00520	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	50.50000	0.00000	-0.00526	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	50.50000	0.00000	-0.00520	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	50.50000	0.00000	-0.00504	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	50.50000	0.00000	-0.00479	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	50.50000	0.00000	-0.00449	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	50.50000	0.00000	-0.00369	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	50.50000	0.00000	-0.00329	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	50.50000	0.00000	-0.00290	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	50.50000	0.00000	-0.00253	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	50.50000	0.00000	-0.00218	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	50.50000	0.00000	-0.00187	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	50.50000	0.00000	-0.00159	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	50.50000	0.00000	-0.00134	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	50.50000	0.00000	-0.00112	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	50.50000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	50.50000	0.00000	-0.00076	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	50.50000	0.00000	-0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	50.50000	0.00000	-0.00048	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	50.50000	0.00000	-0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	50.50000	0.00000	-0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	50.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	50.50000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	50.50000	0.00000	-0.00008	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	50.50000	0.00000	-0.00004	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	50.50000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	51.00000	0.00000	-0.00003	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	51.00000	0.00000	-0.00006	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	51.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	51.00000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	51.00000	0.00000	-0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	51.00000	0.00000	-0.00030	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	51.00000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	51.00000	0.00000	-0.00049	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	51.00000	0.00000	-0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	51.00000	0.00000	-0.00075	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	51.00000	0.00000	-0.00090	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	51.00000	0.00000	-0.00108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	51.00000	0.00000	-0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	51.00000	0.00000	-0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	51.00000	0.00000	-0.00173	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	51.00000	0.00000	-0.00200	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	51.00000	0.00000	-0.00228	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	51.00000	0.00000	-0.00258	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	51.00000	0.00000	-0.00288	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	51.00000	0.00000	-0.00319	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	51.00000	0.00000	-0.00349	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	51.00000	0.00000	-0.00376	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	51.00000	0.00000	-0.00399	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	51.00000	0.00000	-0.00417	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	51.00000	0.00000	-0.00428	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	51.00000	0.00000	-0.00432	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	51.00000	0.00000	-0.00428	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	51.00000	0.00000	-0.00417	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	51.00000	0.00000	-0.00399	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	51.00000	0.00000	-0.00376	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	51.00000	0.00000	-0.00349	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]
1	Ground level Grid	55.50000	51.00000	0.00000	-0.00319	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	51.00000	0.00000	-0.00288	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	51.00000	0.00000	-0.00258	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	51.00000	0.00000	-0.00228	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	51.00000	0.00000	-0.00200	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	51.00000	0.00000	-0.00173	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	51.00000	0.00000	-0.00149	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	51.00000	0.00000	-0.00127	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	51.00000	0.00000	-0.00108	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	51.00000	0.00000	-0.00090	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	51.00000	0.00000	-0.00075	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	51.00000	0.00000	-0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	51.00000	0.00000	-0.00049	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	51.00000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	51.00000	0.00000	-0.00030	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	51.00000	0.00000	-0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	51.00000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	51.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	51.00000	0.00000	-0.00006	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	51.00000	0.00000	-0.00003	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	51.50000	0.00000	-0.00005	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	51.50000	0.00000	-0.00009	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	51.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	51.50000	0.00000	-0.00018	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	51.50000	0.00000	-0.00025	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	51.50000	0.00000	-0.00032	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	51.50000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	51.50000	0.00000	-0.00050	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	51.50000	0.00000	-0.00060	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	51.50000	0.00000	-0.00073	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	51.50000	0.00000	-0.00087	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	51.50000	0.00000	-0.00102	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	51.50000	0.00000	-0.00120	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	51.50000	0.00000	-0.00139	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	51.50000	0.00000	-0.00160	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	51.50000	0.00000	-0.00182	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	51.50000	0.00000	-0.00205	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	51.50000	0.00000	-0.00230	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	51.50000	0.00000	-0.00254	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	51.50000	0.00000	-0.00279	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	51.50000	0.00000	-0.00302	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	51.50000	0.00000	-0.00322	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	51.50000	0.00000	-0.00340	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	51.50000	0.00000	-0.00354	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	51.50000	0.00000	-0.00361	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	51.50000	0.00000	-0.00364	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	51.50000	0.00000	-0.00361	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	51.50000	0.00000	-0.00353	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	51.50000	0.00000	-0.00340	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	51.50000	0.00000	-0.00322	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	51.50000	0.00000	-0.00302	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	51.50000	0.00000	-0.00279	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	51.50000	0.00000	-0.00254	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	51.50000	0.00000	-0.00230	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	51.50000	0.00000	-0.00205	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	51.50000	0.00000	-0.00182	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	51.50000	0.00000	-0.00160	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	51.50000	0.00000	-0.00139	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	51.50000	0.00000	-0.00120	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	51.50000	0.00000	-0.00102	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	51.50000	0.00000	-0.00087	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	51.50000	0.00000	-0.00073	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	51.50000	0.00000	-0.00060	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	51.50000	0.00000	-0.00050	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	51.50000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	51.50000	0.00000	-0.00032	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	51.50000	0.00000	-0.00025	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	51.50000	0.00000	-0.00018	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	51.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	51.50000	0.00000	-0.00009	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	51.50000	0.00000	-0.00005	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]
1	Ground level Grid	50.50000	52.50000	0.00000	-0.00230	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	52.50000	0.00000	-0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	52.50000	0.00000	-0.00254	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	52.50000	0.00000	-0.00262	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	52.50000	0.00000	-0.00267	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	52.50000	0.00000	-0.00268	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	52.50000	0.00000	-0.00267	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	52.50000	0.00000	-0.00262	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	52.50000	0.00000	-0.00254	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	52.50000	0.00000	-0.00243	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	52.50000	0.00000	-0.00230	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	52.50000	0.00000	-0.00215	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	52.50000	0.00000	-0.00200	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	52.50000	0.00000	-0.00183	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	52.50000	0.00000	-0.00166	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	52.50000	0.00000	-0.00150	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	52.50000	0.00000	-0.00134	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	52.50000	0.00000	-0.00118	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	52.50000	0.00000	-0.00104	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	52.50000	0.00000	-0.00091	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	52.50000	0.00000	-0.00078	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	52.50000	0.00000	-0.00067	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	52.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	52.50000	0.00000	-0.00048	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	52.50000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	52.50000	0.00000	-0.00033	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	52.50000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	52.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	52.50000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	52.50000	0.00000	-0.00012	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	53.00000	0.00000	-0.00008	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	53.00000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	53.00000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	53.00000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	53.00000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	53.00000	0.00000	-0.00032	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	53.00000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	53.00000	0.00000	-0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	53.00000	0.00000	-0.00054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	53.00000	0.00000	-0.00064	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	53.00000	0.00000	-0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	53.00000	0.00000	-0.00084	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	53.00000	0.00000	-0.00096	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	53.00000	0.00000	-0.00109	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	53.00000	0.00000	-0.00122	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	53.00000	0.00000	-0.00136	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	53.00000	0.00000	-0.00150	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	53.00000	0.00000	-0.00164	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	53.00000	0.00000	-0.00177	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	53.00000	0.00000	-0.00190	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	53.00000	0.00000	-0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	53.00000	0.00000	-0.00213	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	53.00000	0.00000	-0.00221	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	53.00000	0.00000	-0.00228	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	53.00000	0.00000	-0.00232	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	53.00000	0.00000	-0.00233	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	53.00000	0.00000	-0.00232	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	53.00000	0.00000	-0.00228	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	53.00000	0.00000	-0.00221	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	53.00000	0.00000	-0.00213	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	53.00000	0.00000	-0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	53.00000	0.00000	-0.00190	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	53.00000	0.00000	-0.00177	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	53.00000	0.00000	-0.00164	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	53.00000	0.00000	-0.00150	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	53.00000	0.00000	-0.00136	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	53.00000	0.00000	-0.00122	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	53.00000	0.00000	-0.00109	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	53.00000	0.00000	-0.00096	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	53.00000	0.00000	-0.00084	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	60.50000	53.00000	0.00000	-0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	53.00000	0.00000	-0.00064	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	53.00000	0.00000	-0.00054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	53.00000	0.00000	-0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	53.00000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	53.00000	0.00000	-0.00032	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	53.00000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	53.00000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	53.00000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	53.00000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	53.00000	0.00000	-0.00009	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	53.50000	0.00000	-0.00010	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	53.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	53.50000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	53.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	54.00000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	54.00000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	54.00000	0.00000	-0.00036	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	54.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	54.00000	0.00000	-0.00049	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	53.50000	0.00000	-0.00186	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	53.50000	0.00000	-0.00193	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	53.50000	0.00000	-0.00199	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	53.50000	0.00000	-0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	53.50000	0.00000	-0.00203	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	53.50000	0.00000	-0.00202	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	53.50000	0.00000	-0.00199	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	53.50000	0.00000	-0.00193	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	53.50000	0.00000	-0.00186	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	53.50000	0.00000	-0.00178	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	53.50000	0.00000	-0.00168	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	53.50000	0.00000	-0.00157	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	53.50000	0.00000	-0.00146	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	53.50000	0.00000	-0.00134	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	53.50000	0.00000	-0.00122	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	53.50000	0.00000	-0.00111	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	53.50000	0.00000	-0.00099	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	53.50000	0.00000	-0.00089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	53.50000	0.00000	-0.00078	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	53.50000	0.00000	-0.00069	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	53.50000	0.00000	-0.00060	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	53.50000	0.00000	-0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	53.50000	0.00000	-0.00044	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	53.50000	0.00000	-0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	53.50000	0.00000	-0.00032	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	53.50000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	53.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	53.50000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	53.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	53.50000	0.00000	-0.00010	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	54.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	54.00000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	54.00000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	54.00000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	54.00000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	54.00000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	54.00000	0.00000	-0.00036	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	54.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	54.00000	0.00000	-0.00049	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD DJ25310

31 Spencer Rise Ground Movement Assessment Overall Term Movement

Table with columns: Job No., Sheet No., Rev., Dwg. Ref., Made by, Date, Checked, Date

Main data table with columns: Ref., Name, x, y, z, sz, Stress: Calc., Stress: Vertical, Stress: Sum Princ., Vert. Strain



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	64.50000	55.00000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	55.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	55.50000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	55.50000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	55.50000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	55.50000	0.00000	-0.00020	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	55.50000	0.00000	-0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	55.50000	0.00000	-0.00027	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	55.50000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	55.50000	0.00000	-0.00036	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	55.50000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	55.50000	0.00000	-0.00045	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	55.50000	0.00000	-0.00051	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	55.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	55.50000	0.00000	-0.00062	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	55.50000	0.00000	-0.00067	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	55.50000	0.00000	-0.00072	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	55.50000	0.00000	-0.00077	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	55.50000	0.00000	-0.00081	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	55.50000	0.00000	-0.00086	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	55.50000	0.00000	-0.00089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	55.50000	0.00000	-0.00094	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	55.50000	0.00000	-0.00099	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	55.50000	0.00000	-0.00104	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	55.50000	0.00000	-0.00109	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	55.50000	0.00000	-0.00113	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	55.50000	0.00000	-0.00116	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	55.50000	0.00000	-0.00118	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	55.50000	0.00000	-0.00120	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	55.50000	0.00000	-0.00122	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	55.50000	0.00000	-0.00118	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	55.50000	0.00000	-0.00116	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	55.50000	0.00000	-0.00113	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	55.50000	0.00000	-0.00109	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	55.50000	0.00000	-0.00104	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	55.50000	0.00000	-0.00099	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	55.50000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	55.50000	0.00000	-0.00087	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	55.50000	0.00000	-0.00081	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	55.50000	0.00000	-0.00075	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	55.50000	0.00000	-0.00069	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	55.50000	0.00000	-0.00062	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	55.50000	0.00000	-0.00055	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	55.50000	0.00000	-0.00048	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	55.50000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	55.50000	0.00000	-0.00036	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	55.50000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	55.50000	0.00000	-0.00027	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	55.50000	0.00000	-0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	55.50000	0.00000	-0.00020	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	55.50000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	55.50000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	55.50000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	56.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	56.00000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	56.00000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	56.00000	0.00000	-0.00019	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	56.00000	0.00000	-0.00022	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	56.00000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	56.00000	0.00000	-0.00029	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	56.00000	0.00000	-0.00033	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	56.00000	0.00000	-0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	56.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	56.00000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	56.00000	0.00000	-0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	56.00000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	56.00000	0.00000	-0.00062	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	56.00000	0.00000	-0.00068	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	56.00000	0.00000	-0.00073	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	56.00000	0.00000	-0.00078	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	56.00000	0.00000	-0.00083	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
JDJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	49.50000	56.00000	0.00000	-0.00088	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	56.00000	0.00000	-0.00092	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	56.00000	0.00000	-0.00096	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	56.00000	0.00000	-0.00100	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	56.00000	0.00000	-0.00102	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	56.00000	0.00000	-0.00104	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	56.00000	0.00000	-0.00106	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	56.00000	0.00000	-0.00106	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	56.00000	0.00000	-0.00106	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	56.00000	0.00000	-0.00102	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	56.00000	0.00000	-0.00104	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	56.00000	0.00000	-0.00110	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	56.00000	0.00000	-0.00096	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	56.00000	0.00000	-0.00092	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	56.00000	0.00000	-0.00088	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	56.00000	0.00000	-0.00078	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	56.00000	0.00000	-0.00070	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	56.00000	0.00000	-0.00073	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	56.00000	0.00000	-0.00062	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	56.00000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	56.00000	0.00000	-0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	56.00000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	56.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	56.00000	0.00000	-0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	56.00000	0.00000	-0.00033	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	56.00000	0.00000	-0.00029	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	56.00000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	56.00000	0.00000	-0.00022	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	56.00000	0.00000	-0.00019	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	56.00000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	56.00000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	56.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	56.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	56.50000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	56.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	56.50000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	56.50000	0.00000	-0.00018	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	56.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	56.50000	0.00000	-0.00024	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	56.50000	0.00000	-0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	56.50000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	56.50000	0.00000	-0.00035	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	56.50000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	56.50000	0.00000	-0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	56.50000	0.00000	-0.00048	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	56.50000	0.00000	-0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	56.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	56.50000	0.00000	-0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	56.50000	0.00000	-0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	56.50000	0.00000	-0.00070	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	56.50000	0.00000	-0.00075	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	56.50000	0.00000	-0.00079	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	56.50000	0.00000	-0.00082	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	56.50000	0.00000	-0.00086	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	56.50000	0.00000	-0.00089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	56.50000	0.00000	-0.00091	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	56.50000	0.00000	-0.00092	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	56.50000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	56.50000	0.00000	-0.00094	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	56.50000	0.00000	-0.00093	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	56.50000	0.00000	-0.00091	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	56.50000	0.00000	-0.00089	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	56.50000	0.00000	-0.00088	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	56.50000	0.00000	-0.00086	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	56.50000	0.00000	-0.00082	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	56.50000	0.00000	-0.00079	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	56.50000	0.00000	-0.00075	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	56.50000	0.00000	-0.00070	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	56.50000	0.00000	-0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	56.50000	0.00000	-0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	56.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]
1	Ground level Grid	59.50000	56.50000	0.00000	-0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	56.50000	0.00000	-0.00048	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	56.50000	0.00000	-0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	56.50000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	56.50000	0.00000	-0.00035	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	56.50000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	56.50000	0.00000	-0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	56.50000	0.00000	-0.00024	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	56.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	56.50000	0.00000	-0.00018	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	56.50000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	56.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	56.50000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	57.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	57.00000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	57.00000	0.00000	-0.00015	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	57.50000	0.00000	-0.00019	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	57.50000	0.00000	-0.00022	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	57.50000	0.00000	-0.00024	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	57.00000	0.00000	-0.00018	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	57.00000	0.00000	-0.00015	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	57.00000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	57.00000	0.00000	-0.00010	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	57.00000	0.00000	-0.00008	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	57.00000	0.00000	-0.00007	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	57.00000	0.00000	-0.00006	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	57.00000	0.00000	-0.00005	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	57.00000	0.00000	-0.00004	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	57.00000	0.00000	-0.00003	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	57.00000	0.00000	-0.00002	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	57.00000	0.00000	-0.00001	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	57.00000	0.00000	0.00000	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	57.50000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	57.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	57.50000	0.00000	-0.00015	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	57.50000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	57.50000	0.00000	-0.00019	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	57.50000	0.00000	-0.00022	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	57.50000	0.00000	-0.00024	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dwg. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	43.50000	57.50000	0.00000	-0.00027	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	57.50000	0.00000	-0.00030	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	57.50000	0.00000	-0.00033	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	57.50000	0.00000	-0.00037	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	57.50000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	57.50000	0.00000	-0.00044	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	57.50000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	57.50000	0.00000	-0.00050	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	57.50000	0.00000	-0.00054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	57.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	57.50000	0.00000	-0.00060	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	57.50000	0.00000	-0.00063	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	57.50000	0.00000	-0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	57.50000	0.00000	-0.00068	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	57.50000	0.00000	-0.00070	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	57.50000	0.00000	-0.00072	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	57.50000	0.00000	-0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	57.50000	0.00000	-0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	57.50000	0.00000	-0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	57.50000	0.00000	-0.00074	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	57.50000	0.00000	-0.00073	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	57.50000	0.00000	-0.00072	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	57.50000	0.00000	-0.00070	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	57.50000	0.00000	-0.00068	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	57.50000	0.00000	-0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	57.50000	0.00000	-0.00063	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	57.50000	0.00000	-0.00060	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	57.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	57.50000	0.00000	-0.00054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	57.50000	0.00000	-0.00050	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	57.50000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	57.50000	0.00000	-0.00044	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	57.50000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	57.50000	0.00000	-0.00037	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	57.50000	0.00000	-0.00033	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	57.50000	0.00000	-0.00030	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	57.50000	0.00000	-0.00027	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	57.50000	0.00000	-0.00024	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	57.50000	0.00000	-0.00022	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	57.50000	0.00000	-0.00019	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	57.50000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	57.50000	0.00000	-0.00015	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	57.50000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	57.50000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	58.00000	0.00000	-0.00010	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	58.00000	0.00000	-0.00012	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	58.00000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	58.00000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	58.00000	0.00000	-0.00018	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	58.00000	0.00000	-0.00020	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	58.00000	0.00000	-0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	58.00000	0.00000	-0.00025	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	58.00000	0.00000	-0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	58.00000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	58.00000	0.00000	-0.00034	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	58.00000	0.00000	-0.00037	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	58.00000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	58.00000	0.00000	-0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	58.00000	0.00000	-0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	58.00000	0.00000	-0.00049	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	58.00000	0.00000	-0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	58.00000	0.00000	-0.00054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	58.00000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	58.00000	0.00000	-0.00059	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	58.00000	0.00000	-0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	58.00000	0.00000	-0.00063	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	58.00000	0.00000	-0.00064	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	58.00000	0.00000	-0.00065	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	58.00000	0.00000	-0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	58.00000	0.00000	-0.00066	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	58.00000	0.00000	-0.00066	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	53.50000	58.00000	0.00000	-0.00065	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	58.00000	0.00000	-0.00064	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	58.00000	0.00000	-0.00063	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	58.00000	0.00000	-0.00061	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	58.00000	0.00000	-0.00059	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	58.00000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	58.00000	0.00000	-0.00054	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	58.00000	0.00000	-0.00052	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	58.00000	0.00000	-0.00049	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	58.00000	0.00000	-0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	58.00000	0.00000	-0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	58.00000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	58.00000	0.00000	-0.00037	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	58.00000	0.00000	-0.00034	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.50000	58.00000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	58.00000	0.00000	-0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	58.00000	0.00000	-0.00025	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	58.00000	0.00000	-0.00023	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	58.00000	0.00000	-0.00020	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	58.00000	0.00000	-0.00018	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.50000	58.00000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	58.00000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	58.00000	0.00000	-0.00012	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	58.00000	0.00000	-0.00010	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	58.50000	0.00000	-0.00010	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	58.50000	0.00000	-0.00012	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	58.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	58.50000	0.00000	-0.00015	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	58.50000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	58.50000	0.00000	-0.00019	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	58.50000	0.00000	-0.00021	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	58.50000	0.00000	-0.00024	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	58.50000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	58.50000	0.00000	-0.00029	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	58.50000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	58.50000	0.00000	-0.00034	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	58.50000	0.00000	-0.00036	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	58.50000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	58.50000	0.00000	-0.00044	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	58.50000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	58.50000	0.00000	-0.00049	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	58.50000	0.00000	-0.00051	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	58.50000	0.00000	-0.00053	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	58.50000	0.00000	-0.00055	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	58.50000	0.00000	-0.00056	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	58.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	58.50000	0.00000	-0.00058	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	58.50000	0.00000	-0.00059	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	58.50000	0.00000	-0.00059	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	58.50000	0.00000	-0.00059	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	58.50000	0.00000	-0.00058	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	58.50000	0.00000	-0.00057	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	58.50000	0.00000	-0.00056	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	58.50000	0.00000	-0.00055	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	58.50000	0.00000	-0.00053	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	58.50000	0.00000	-0.00051	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	58.50000	0.00000	-0.00049	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	58.50000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	58.50000	0.00000	-0.00044	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.00000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	58.50000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.00000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	59.50000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	60.00000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.00000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	61.50000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.00000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	62.50000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	63.00000	58.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
Ground Movement Assessment
Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc.	Stress: Vertical	Stress: Sum Princ.	Stress: Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	63.50000	58.50000	0.00000	-0.00015	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.00000	58.50000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	64.50000	58.50000	0.00000	-0.00012	-0.083333	0.0	0.0	0.0
1	Ground level Grid	65.00000	58.50000	0.00000	-0.00010	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.00000	59.00000	0.00000	-0.00010	-0.083333	0.0	0.0	0.0
1	Ground level Grid	40.50000	59.00000	0.00000	-0.00011	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.00000	59.00000	0.00000	-0.00013	-0.083333	0.0	0.0	0.0
1	Ground level Grid	41.50000	59.00000	0.00000	-0.00014	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.00000	59.00000	0.00000	-0.00016	-0.083333	0.0	0.0	0.0
1	Ground level Grid	42.50000	59.00000	0.00000	-0.00019	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.00000	59.50000	0.00000	-0.00017	-0.083333	0.0	0.0	0.0
1	Ground level Grid	43.50000	59.50000	0.00000	-0.00020	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.00000	59.50000	0.00000	-0.00022	-0.083333	0.0	0.0	0.0
1	Ground level Grid	44.50000	59.50000	0.00000	-0.00024	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.00000	59.50000	0.00000	-0.00026	-0.083333	0.0	0.0	0.0
1	Ground level Grid	45.50000	59.50000	0.00000	-0.00028	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.00000	59.50000	0.00000	-0.00030	-0.083333	0.0	0.0	0.0
1	Ground level Grid	46.50000	59.50000	0.00000	-0.00032	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.00000	59.50000	0.00000	-0.00034	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	59.50000	0.00000	-0.00036	-0.083333	0.0	0.0	0.0



GEOTECHNICAL AND ENVIRONMENTAL ASSOCIATES LTD
DJ25310

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Job No.	Sheet No.	Rev.
DJ25310		
Dig. Ref.		
Made by	Date	Checked
AT		
		Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[μ]
1	Ground level Grid	48.00000	59.50000	0.00000	-0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.50000	59.50000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	59.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	59.50000	0.00000	-0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	59.50000	0.00000	-0.00044	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.50000	59.50000	0.00000	-0.00045	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	59.50000	0.00000	-0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	59.50000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	59.50000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	59.50000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	59.50000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	59.50000	0.00000	-0.00047	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	59.50000	0.00000	-0.00046	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	59.50000	0.00000	-0.00045	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	59.50000	0.00000	-0.00044	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	59.50000	0.00000	-0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	59.50000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	59.50000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	60.00000	0.00000	-0.00035	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	60.00000	0.00000	-0.00033	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	60.00000	0.00000	-0.00031	-0.083333	0.0	0.0	0.0
1	Ground level Grid	47.50000	60.00000	0.00000	-0.00033	-0.083333	0.0	0.0	0.0
1	Ground level Grid	48.00000	60.00000	0.00000	-0.00036	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.00000	60.00000	0.00000	-0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	49.50000	60.00000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	50.00000	60.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.00000	60.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	51.50000	60.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.00000	60.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	52.50000	60.00000	0.00000	-0.00043	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.00000	60.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	53.50000	60.00000	0.00000	-0.00042	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.00000	60.00000	0.00000	-0.00041	-0.083333	0.0	0.0	0.0
1	Ground level Grid	54.50000	60.00000	0.00000	-0.00041	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.00000	60.00000	0.00000	-0.00040	-0.083333	0.0	0.0	0.0
1	Ground level Grid	55.50000	60.00000	0.00000	-0.00039	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.00000	60.00000	0.00000	-0.00038	-0.083333	0.0	0.0	0.0
1	Ground level Grid	56.50000	60.00000	0.00000	-0.00036	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.00000	60.00000	0.00000	-0.00035	-0.083333	0.0	0.0	0.0
1	Ground level Grid	57.50000	60.00000	0.00000	-0.00033	-0.083333	0.0	0.0	0.0



Job No.

Sheet No.

Rev.

31 Spencer Rise
 Ground Movement Assessment
 Overall Term Movement

Drig. Ref.

Made by
AT

Date

Checked

Date

Ref.	Name	x	y	z	δz	Stress: Calc. Level	Stress: Vertical	Stress: Sum Princ.	Stress: Strain	Vert. Strain
		[m]	[m]	[mOD]	[mm]	[mOD]	[kN/m ²]	[kN/m ²]	[kN/m ²]	[µ]
1	Ground level Grid	58.500000	60.000000	0.000000	-0.00031	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	58.500000	60.000000	0.000000	-0.00030	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	59.000000	60.000000	0.000000	-0.00028	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	59.500000	60.000000	0.000000	-0.00026	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	60.000000	60.000000	0.000000	-0.00024	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	60.500000	60.000000	0.000000	-0.00023	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	61.000000	60.000000	0.000000	-0.00021	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	61.500000	60.000000	0.000000	-0.00019	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	62.000000	60.000000	0.000000	-0.00017	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	62.500000	60.000000	0.000000	-0.00016	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	63.000000	60.000000	0.000000	-0.00014	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	63.500000	60.000000	0.000000	-0.00013	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	64.000000	60.000000	0.000000	-0.00011	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	64.500000	60.000000	0.000000	-0.00010	-0.0833333	0.0	0.0	0.0	0.0
1	Ground level Grid	65.000000	60.000000	0.000000	-0.00009	-0.0833333	0.0	0.0	0.0	0.0

Results : Consolidation : Displacement Data : Grids

None

Results : Total : Displacement Data : Grids

None



Geotechnical &
Environmental
Associates

Herts:

Widbury Barn
Widbury Hill
Ware
Hertfordshire
SG12 7QE
tel 01727 824666
mail@gea-ltd.co.uk

Notts:

Church Farm
Gotham Road
Kingston on Soar
Notts
NG11 0DE
tel 01509 674888
midlands@gea-ltd.co.uk

Manchester:

Peter House
Oxford Street
Manchester
M1 5AN
tel 0161 209 3032
mail @ gea-ltd.co.uk

www.gea-ltd.co.uk