

Appendix A

LANDPAC - BGCL ASOS Logistics Houghton
HEIC-CIR-CIS ZLT Testing Report (Ref: LP1225)

LP1225 - BGCL ASOS LOGISTICS HOUGHTON

REPORT 8th August 2013

HEIC - CIR - CIS ZLT TESTING

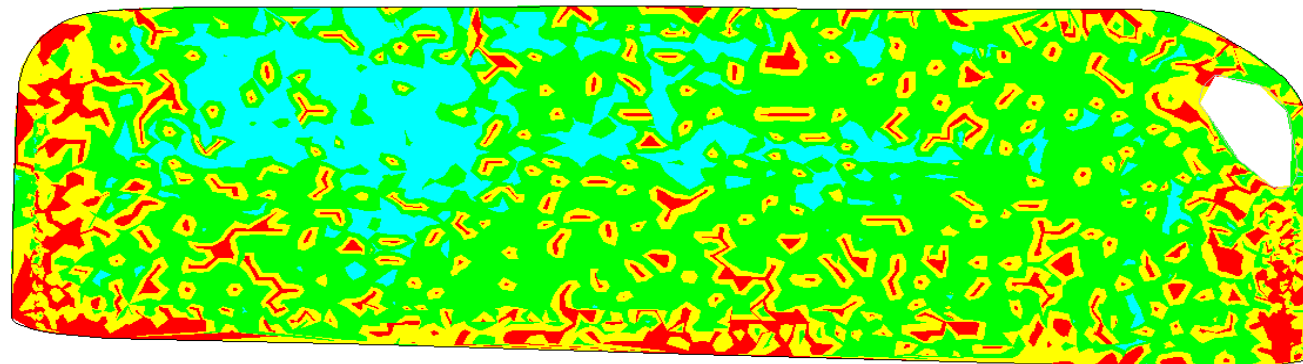
CONTENTS

- **Area 1A - 3 page Handover Sheet**
- **Area 1B - 3 page Handover Sheet**
- **Area 2 - 3 page Handover Sheet**
- **Final CIR (continuous impact response) Drawing**
- **Final CIS (continuous induced settlement) Drawing**
- **ZLT 101 Report Data**
- **ZLT 102 Report Data**
- **ZLT 103 Report Data**
- **ZLT 104 Report Data**

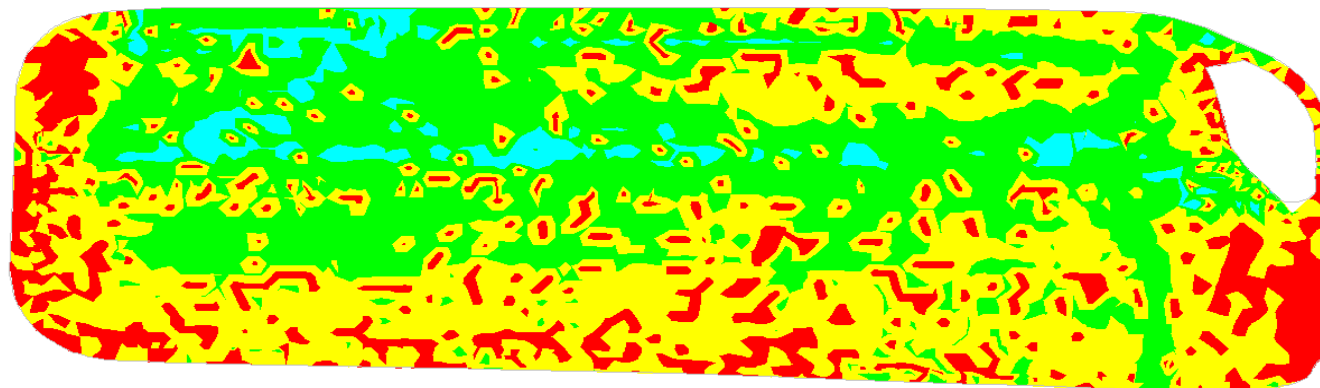
LANDPAC HEIC RESULTS								
Landpac Equipment				Compaction Details				Graph Showing Settlement Against HEIC Passes
CAT Challenger 95E Tractor 5 Sided LANDPAC HEIC Impactor Trimble R6 GPS				AREA 1A-HOS Size of Area: 3920m ² approx HEIC Completed: 19/07/13				Number of HEIC Passes CIS - Induced Settlement (mm)
CIR Data (g's)				CIS Data (mm)				
DATE HEIC	PASS	AVG CIR	MAX	DATE HEIC	PASS	AVG CIS	LAST 10	
17/07/2013	1	5.75	12.8	17/07/2013	1	0	0	
17/07/2013	10	5.08	11.94	17/07/2013	10	15	15	
18/07/2013	20	4.76	12.41	18/07/2013	20	26	11	
18/07/2013	25	4.78	13.31	18/07/2013	25	30	4	
19/07/2013	30	4.82	13.19	19/07/2013	30	39	9	
19/07/2013	35	4.863	12.71	19/07/2013	35	39	0	
Soft Spot Coordinates (approximate)								COMMENTS
								PLEASE NOTE: COMPACTION STOPPED AFTER 10 PASSES TO REVEIW THE LARGE AREA OF RED ON THE CIR PLOT AT 10 TO THE SOUTH OF THE AREA WITH BUCKINGHAMS. IT WAS DECIDED BY BUCKINGHAMTS THAT REMEDIATION WOULD TAKE PLACE ON THE HIGHLIGHTED AREA TO THE SOUTH OF "AREA1". AS A RESULT, AREA1 WAS SPLIT IN HALF, AREA1A TO THE NORTH AND AREA1B TO THE SOUTH WHICH ALLOWED LANDPAC TO CONTINUE WORKING WHILST REMEDIATION WAS BEING CARRIED OUT.
Easting	Northing	Easting	Northing	Easting	Northing	Easting	Northing	
LANDPAC SITE SUPERVISOR				BUCKINGHAM GROUP PROJECT MANAGER				Project No.: LP1225
NAME:	ANDREW AITON			PETER SHEARER				Project Name: ASOS BUILDING EXTENTION
Date:	19/07/2013							Address: PARK SPRINGS ROAD GRIMESTHORPE, ENGLAND.
Registered in England and Wales No. 4138409 Registered Office: The Kinetic Centre, Theobald Street, Borehamwood, Hertfordshire WD6 4PJ, United Kingdom Tel: +44 (0) 845 500 5533 Email: DKelly@landpac.co.uk								LAND PAC LANDPAC Ground Engineering Ltd Intelligent Ground Improvement
HEIC, CIR & CIS RECORD								
HCCR001 - REV003								

LEGEND

CIR @ INITIAL COVERAGE



CIR @ 35 COVERAGES



The Continuous Impact Response Maps (CIR) above show ground strength after the number of coverages shown.

LANDPAC SITE SUPERVISOR		BUCKINGHAM GROUP PROJECT MANAGER		Project No.:	LP1225
NAME:	ANDREW AITON	PETER SHEARER	Project Name:	ASOS BUILDING EXTENTION	
				PARK SPRINGS ROAD	
				GRIMESTHORPE, ENGLAND.	
Date:	19/07/2013				

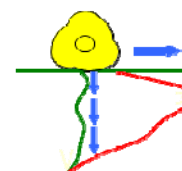
Registered in England and Wales No. 4138409

Registered Office: The Kinetic Centre, Theobald Street, Borehamwood, Hertfordshire WD6 4PJ, United Kingdom

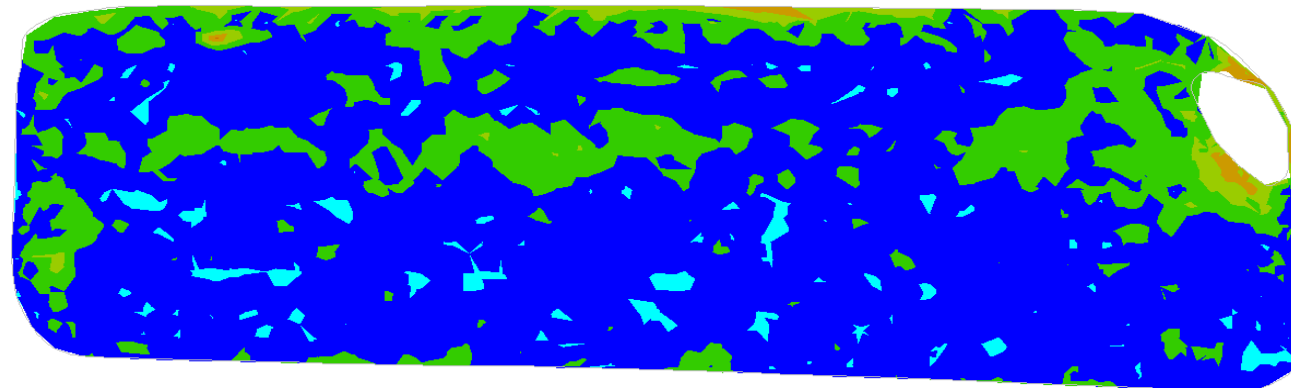
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Email: DKelly@landpac.co.uk

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LEGEND

CIS 1-35 COVERAGES

The Continuous Impact Response Maps (CIR) above show ground strength after the number of coverages shown.

LANDPAC SITE SUPERVISOR		BUCKINGHAM GROUP PROJECT MANAGER		Project No.:	LP1225
NAME:	ANDREW AITON	PETER SHEARER		Project Name:	ASOS BUILDING EXTENTION
					PARK SPRINGS ROAD
					GRIMESTHORPE, ENGLAND.
Date:	19/07/2013				

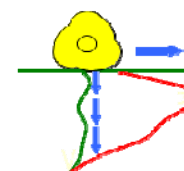
Registered in England and Wales No. 4138409

Registered Office: The Kinetic Centre, Theobald Street, Borehamwood, Hertfordshire WD6 4PJ, United Kingdom

Tel: +44 (0) 845 500 5533

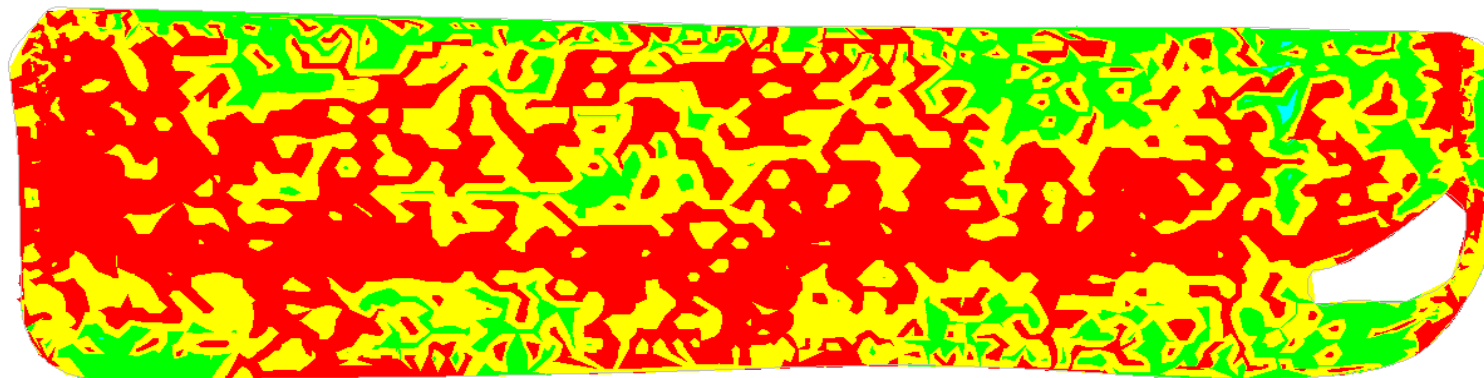
Email: DKelly@landpac.co.uk

HEIC, CIR & CIS RECORD
HCCR001 - REV003

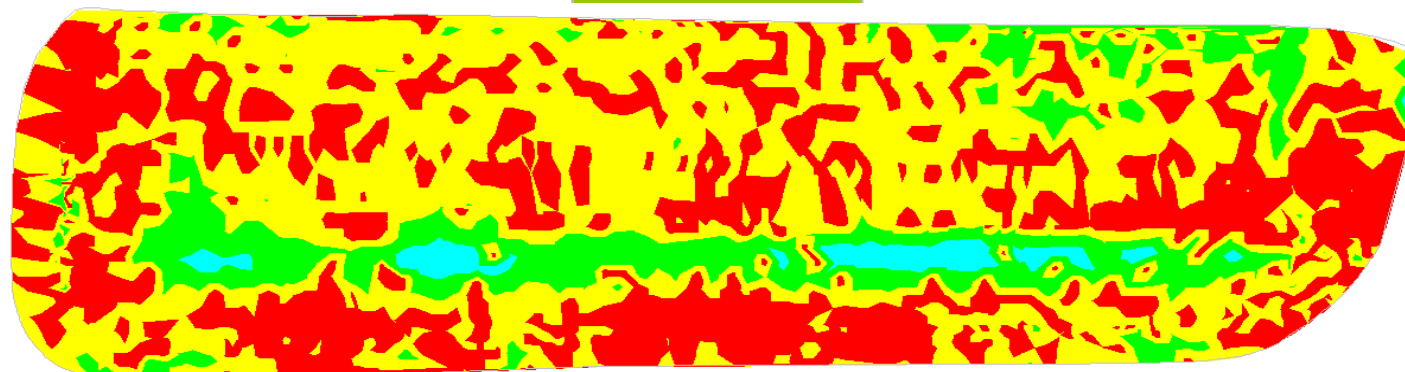


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LANDPAC HEIC RESULTS											
Landpac Equipment				Compaction Details				Graph Showing Settlement Against HEIC Passes			
CAT Challenger 95E Tractor 5 Sided LANDPAC HEIC Impactor Trimble R6 GPS				AREA 1B-HOS Size of Area: 3700m ² approx HEIC Completed: 22/07/13							
CIR Data (g's)				CIS Data (mm)							
DATE HEIC	PASS	AVG CIR	MAX	DATE HEIC	PASS	AVG CIS	LAST 10			MAX	
17/07/2013	1	4.68	12.48	17/07/2013	1	0	0			0	
17/07/2013	10	4.11	11.94	17/07/2013	10	4	4			163	
20/07/2013	11	3.33	9.38	20/07/2013	11	31	27			231	
20/07/2013	20	3.286	10.45	20/07/2013	20	44	13			106	
22/07/2013	25	3.746	11.29	22/07/2013	25	44	0			120	
Soft Spot Coordinates (approximate)				COMMENTS				PLEASE NOTE: COMPACTION STOPPED AFTER 10 PASSES TO REVIEW THE LARGE AREA OF RED ON THE CIR PLOT AT 10 TO THE SOUTH OF THE AREA WITH BUCKINGHAMSHAM. REMEDIATION TOOK PLACE BETWEEN PASS 10 AND 11 THEREFORE THE SETTLEMENT ACHIEVED BETWEEN THESE PASSES HAVE BEEN SHOWN BUT ARE VOID DUE TO A CHANGE IN GROUND LEVEL. SETTLEMENT WILL NOW BE MONITORED FROM PASS 11 UNTIL SETTLEMENT CRITERIA HAS BEEN ACHIEVED. AT PASS 25 MORE WEEKER GROUND HIGHLIGHTED TO BUCKINGHAMSHAM. DECISION HAS BEEN MADE FOR MORE REMEDIATION TO TAKE PLACE.			
Easting	Northing	Easting	Northing	Easting	Northing	Easting	Northing				
LANDPAC SITE SUPERVISOR				BUCKINGHAMSHAM PROJECT MANAGER				Project No.:		LP1225	
NAME:		KEITH BERWICK		NAME:		PETER SHEARER		Project Name:		ASOS BUILDING EXTENTION	
Date:		22/07/2013						Address:		PARK SPRINGS ROAD	
										GRIMESTHORPE, ENGLAND.	
Registered in England and Wales No. 4138409 Registered Office: The Kinetic Centre, Theobald Street, Borehamwood, Hertfordshire WD6 4PJ, United Kingdom Tel: +44 (0) 845 500 5533 Email: DKelly@landpac.co.uk											
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HEIC, CIR & CIS RECORD HCCR001 - REV003											

LEGEND

CIR @ INITIAL COVERAGE



CIR @ 25 COVERAGE'S

The Continuous Impact Response Maps (CIR) above show ground strength after the number of coverages shown.

LANDPAC SITE SUPERVISOR		BUCKINGHAMSHIRE PROJECT MANAGER		Project No.:	LP1225
NAME:	KEITH BERWICK	PETER SHEARER	Project Name:	ASOS BUILDING EXTENTION	
				PARK SPRINGS ROAD	
				GRIMESTHORPE, ENGLAND.	
Date:	22/07/2013				

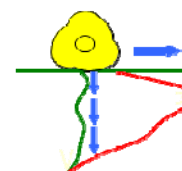
Registered in England and Wales No. 4138409

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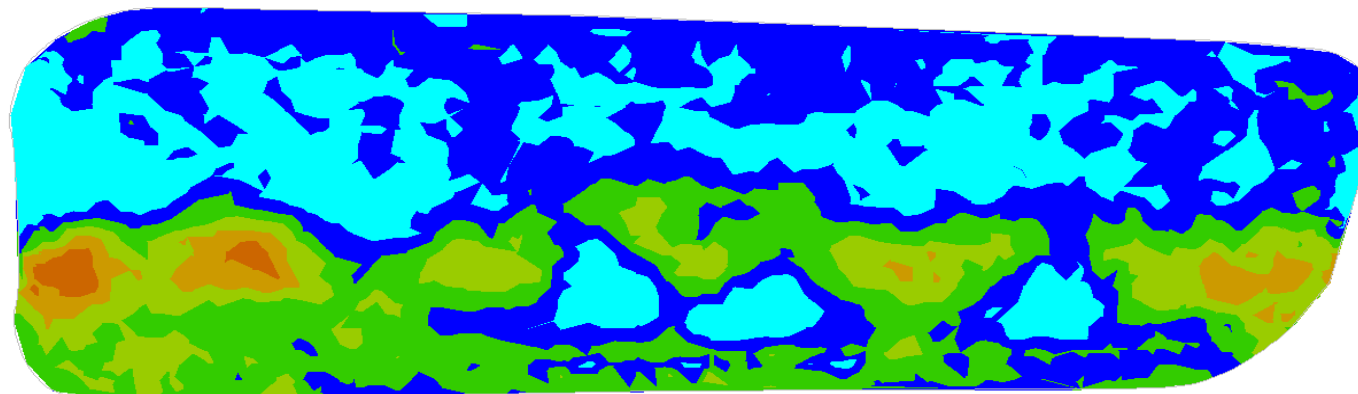
Tel: +44 (0) 845 500 5533

Email: DKelly@landpac.co.uk

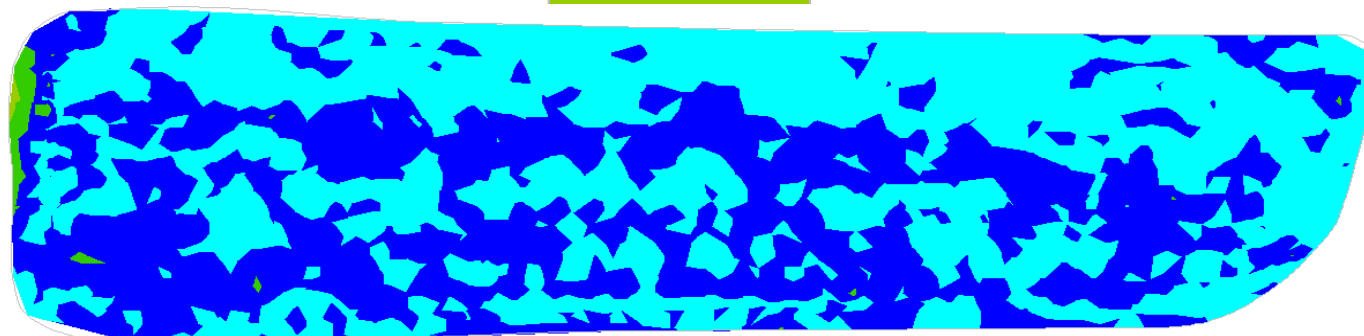
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LEGEND

CIS 1-25 COVERAGE'S



CIS 11-25 COVERAGE'S

The Continuous Impact Response Maps (CIR) above show ground strength after the number of coverages shown.

LANDPAC SITE SUPERVISOR		BUCKINGHAMSHIRE PROJECT MANAGER		Project No.:	LP1225
NAME:	KEITH BERWICK	PETER SHEARER		Project Name:	ASOS BUILDING EXTENTION
					PARK SPRINGS ROAD
					GRIMESTHORPE, ENGLAND.
Date:	22/07/2013				

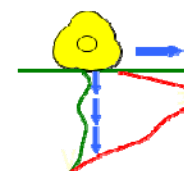
Registered in England and Wales No. 4138409

Registered Office: The Kinetic Centre, Theobald Street, Borehamwood, Hertfordshire WD6 4PJ, United Kingdom

Tel: +44 (0) 845 500 5533

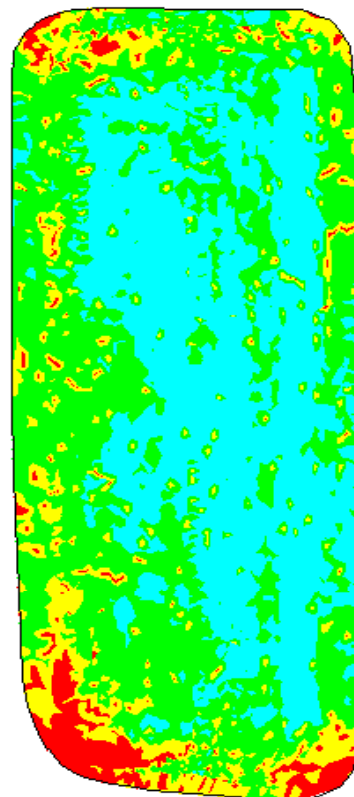
Email: DKelly@landpac.co.uk

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HCCR001 - REV003

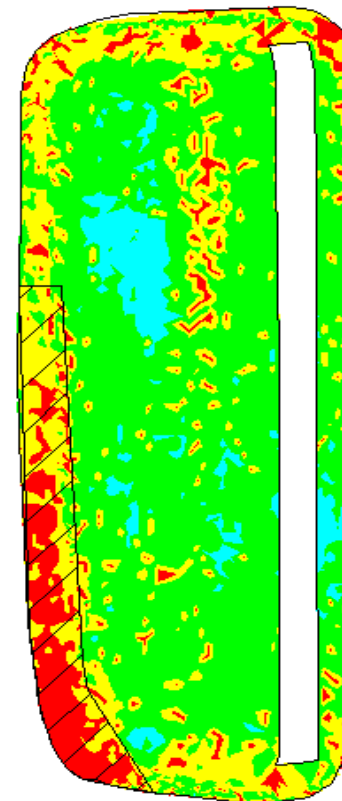


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LANDPAC HEIC RESULTS									
Landpac Equipment				Compaction Details				Graph Showing Settlement Against HEIC Passes	
CAT Challenger 95E Tractor 5 Sided LANDPAC HEIC Impactor Trimble R6 GPS				AREA 2-HOS Size of Area: 5820m ² approx HEIC Completed: 31/07/13				Number of HEIC Passes	
CIR Data (g's)				CIS Data (mm)					
DATE HEIC	PASS	AVG CIR	MAX	DATE HEIC	PASS	AVG CIS	LAST 10		MAX
30/07/2013	1	7.095	19.03	30/07/2013	1	0	0		0
30/07/2013	10	6.559	12.35	30/07/2013	10	5	5		303
31/07/2013	20	6.266	12.71	31/07/2013	20	8	3	221	
31/07/2013	25	5.725	12.48	31/07/2013	25	8	0	172	
Soft Spot Coordinates (approximate)								COMMENTS	
Easting	Northing	Easting	Northing	Easting	Northing	Easting	Northing	NOTE AT PASS 25 A POTENTIAL SOFT SPOT WAS HIGHLIGHTED TO BUCKINGHAMSHAM. SEE HATCHED AREA ON CIR PLOT BELOW.	
LANDPAC SITE SUPERVISOR				BUCKINGHAMSHAM PROJECT MANAGER				Project No.: LP1225	
NAME:	KEITH BERWICK			PETER SHEARER				Project Name: ASOS BUILDING EXTENTION	
Date:	31/07/2013							Address: PARK SPRINGS ROAD	
								GRIMESTHORPE, ENGLAND.	
Registered in England and Wales No. 4138409 Registered Office: The Kinetic Centre, Theobald Street, Borehamwood, Hertfordshire WD6 4PJ, United Kingdom Tel: +44 (0) 845 500 5533 Email: DKelly@landpac.co.uk								LAND PAC LANDPAC Ground Engineering Ltd Intelligent Ground Improvement	
HEIC, CIR & CIS RECORD									
HCCR001 - REV003									

LEGEND

CIR @ INITIAL COVERAGE



CIR @ 25 COVERAGE'S

The Continuous Impact Response Maps (CIR) above show ground strength after the number of coverages shown.

LANDPAC SITE SUPERVISOR		BUCKINGHAM'S PROJECT MANAGER		Project No.:	LP1225
NAME:	KEITH BERWICK	PETER SHEARER	Project Name:	ASOS BUILDING EXTENTION	
				PARK SPRINGS ROAD	
				GRIMESTHORPE, ENGLAND.	
Date:	31/07/2013				

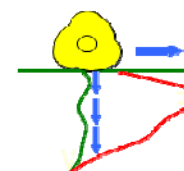
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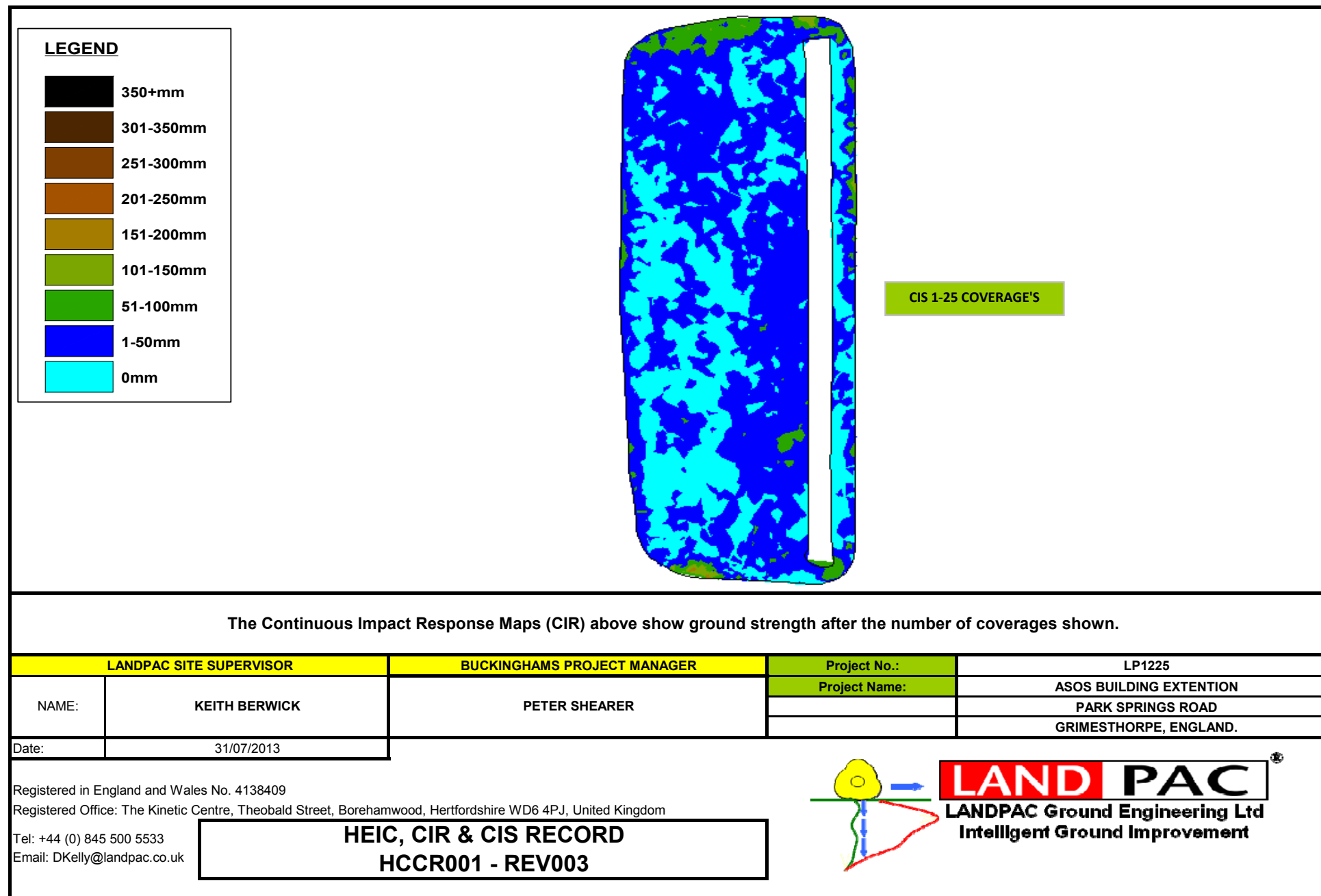
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Email: DKelly@landpac.co.uk

HEIC, CIR & CIS RECORD
HCCR001 - REV003



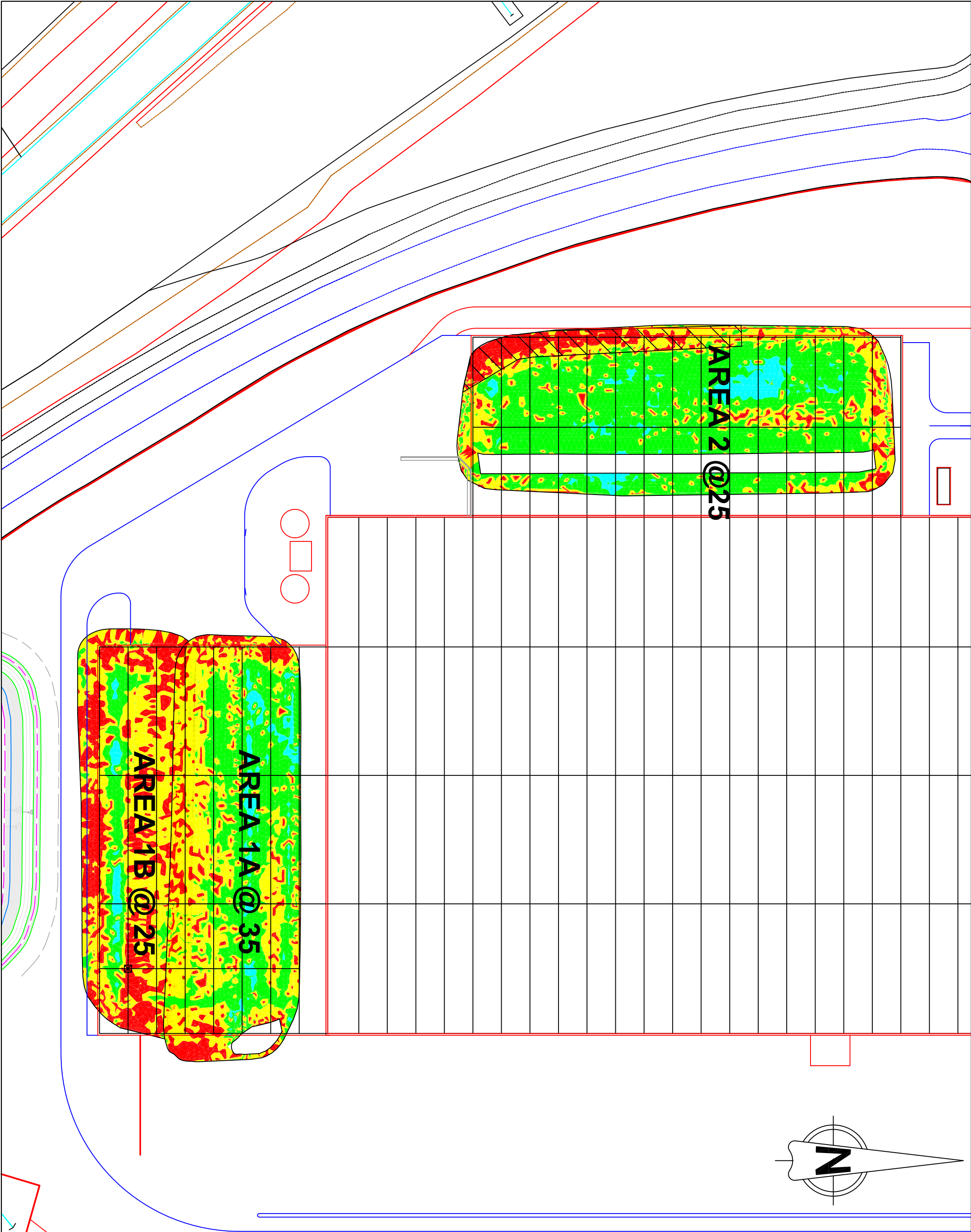
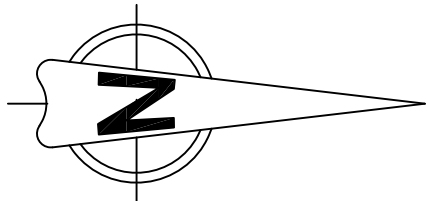
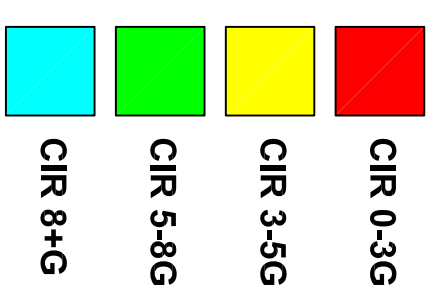
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Existing Site Control

Not applicable

Legend



Site Location

ASOS EXTENSION
PARK VALLEY ROAD
GRIMESTHORPE, ENGLAND

Client

BUCKINGHAM GROUP CONTRACTING LTD
SILVERSTONE ROAD
STOWE

Drawing title

FINAL CIR

Job No.	Drawing No.	Revision	Scale
LP1225	LP1225-4	N/A	1:500
Sheet Size	Designed By	Drawn By	Drawn on
A1	LANDPAC	AA/KB	31/07/13

LAND PAC

Colin Thomas
49 Theobald Street
Birmingham B3 7DT
United Kingdom

Tel: +44 (0) 121 628 1333
Fax: +44 (0) 121 628 1722
email@landpac.co.uk
www.landpac.co.uk

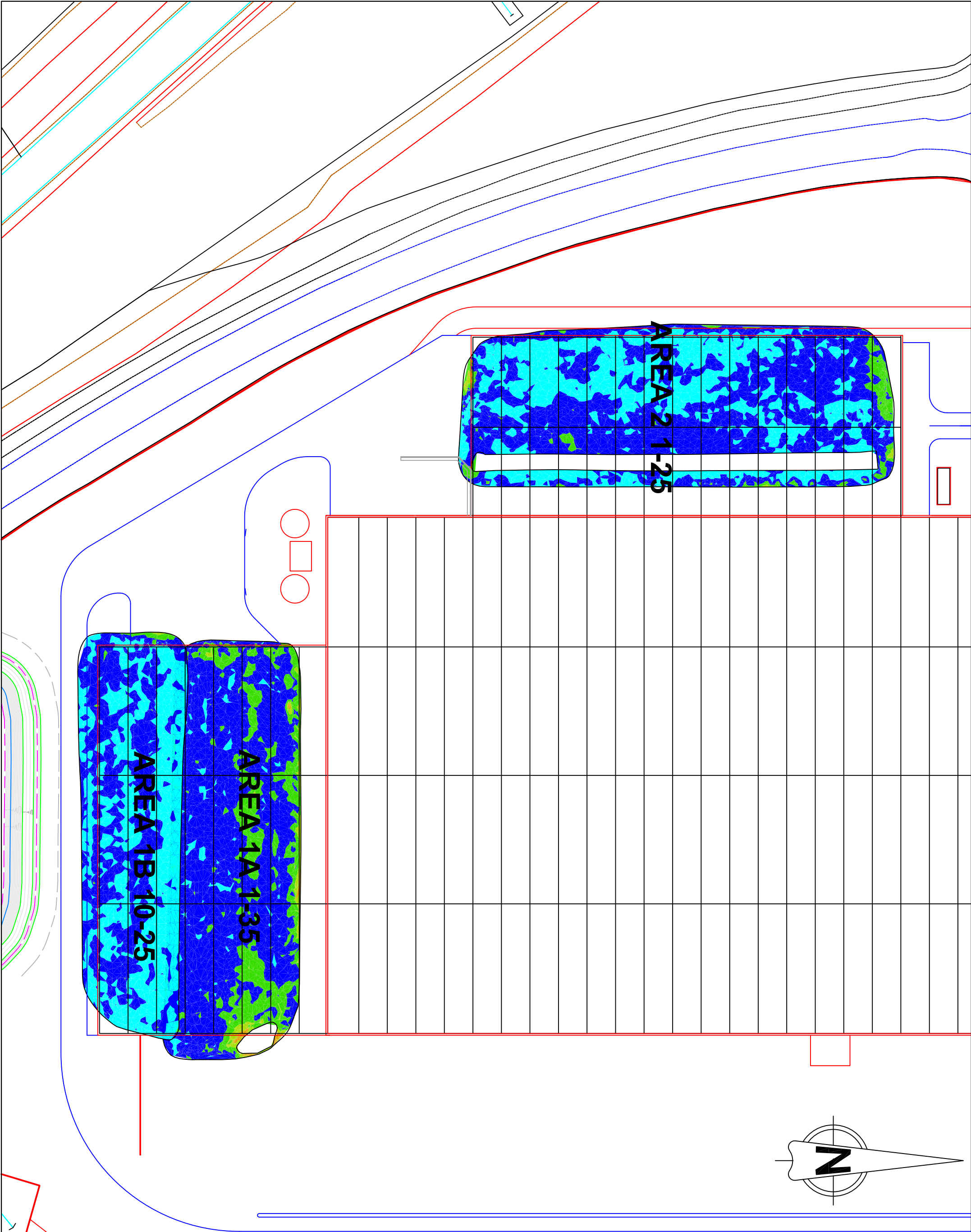
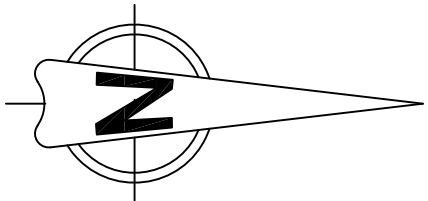
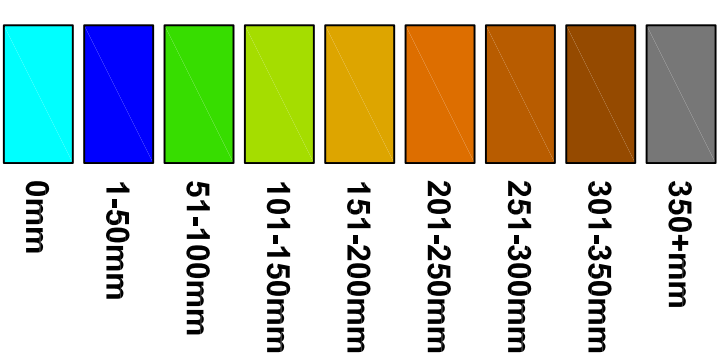
Existing Survey Benchmarks

EXISTING SITE CONTROL

Benchmark level (m AOD)

Not applicable

LEGEND



Site Location

ASOS EXTENSION
PARK VALLEY ROAD
GRIMESTHORPE, ENGLAND

Client

BUCKINGHAM GROUP CONTRACTING LTD
SILVERSTONE ROAD
STOWE

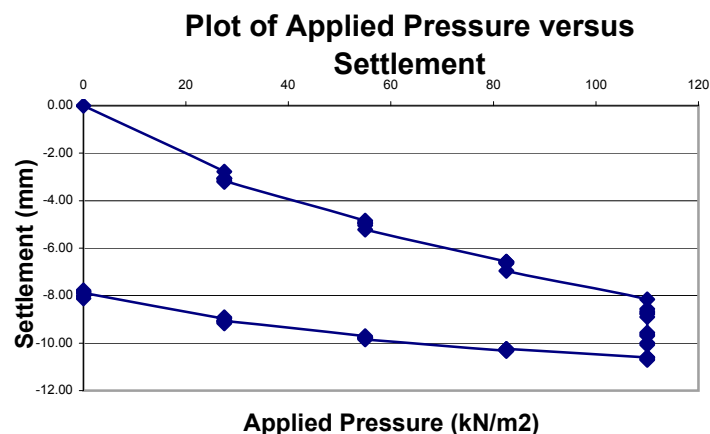
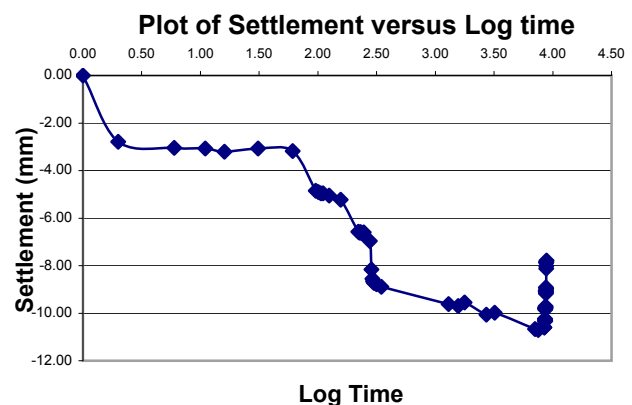
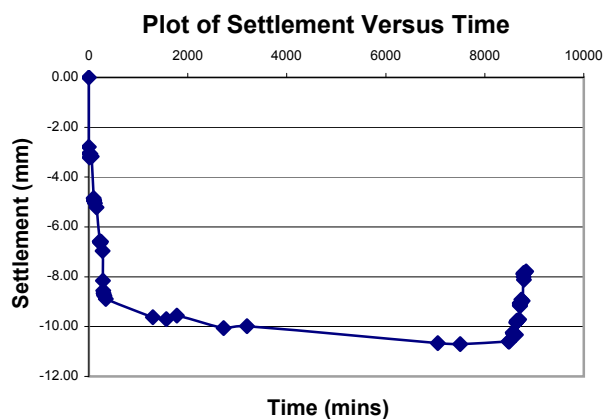
Drawing title

CIS DRAWING

Job No.	Drawing No.	Revision	Scale
LP1225	LP1225-5	N/A	1:500
Sheet Size	Designed By	Drawn By	Drawn on
A1	LANDPAC	AA/KB	31/07/13

Date of Test	10/07/2013 to 16/07/13	Testing Carried out by	PDS
Test Strata	MG	Test Method	BS1377 Pt 9 Cl 4.2
Groundwater	Unknown	Pad Type	Steel Plate
Location	441934 406128 33.19	Pad Dimensions (mm)	1995 x2005 x 100
Weather	Hot (26-30 degrees C) and dry	Pad Mass (kg)	1500

Date	Time	Log Time	Pressure	Settlement	Date	Time	Log Time	Pressure	Settlement
10/07/2013 10:55	0	0.00	0	0.00	16/07/2013 11:00	8846	3.94	55	-9.79
10/07/2013 10:56	2	0.30	27.5	-2.78	16/07/2013 11:05	8651	3.94	55	-9.76
10/07/2013 11:00	6	0.78	27.5	-3.05	16/07/2013 11:20	8665	3.94	55	-9.76
10/07/2013 11:05	11	1.04	27.5	-3.07	16/07/2013 11:50	8696	3.94	55	-9.71
10/07/2013 11:10	16	1.20	27.5	-3.21	16/07/2013 11:59	8704	3.94	27.5	-9.06
10/07/2013 11:25	31	1.49	27.5	-3.08	16/07/2013 12:03	8709	3.94	27.5	-9.13
10/07/2013 11:55	61	1.79	27.5	-3.17	16/07/2013 12:06	8712	3.94	27.5	-9.17
10/07/2013 12:30	96	1.98	55	-4.85	16/07/2013 12:11	8717	3.94	27.5	-9.08
10/07/2013 12:35	101	2.00	55	-4.91	16/07/2013 12:16	8722	3.94	27.5	-9.06
10/07/2013 12:40	106	2.03	55	-4.95	16/07/2013 12:31	8736	3.94	27.5	-8.92
10/07/2013 12:45	111	2.05	55	-4.96	16/07/2013 13:01	8767	3.94	27.5	-8.96
10/07/2013 13:00	125	2.10	55	-5.05	16/07/2013 13:12	8778	3.94	0	-7.89
10/07/2013 13:30	156	2.19	55	-5.22	16/07/2013 13:17	8783	3.94	0	-7.85
10/07/2013 14:35	221	2.34	82.5	-6.57	16/07/2013 13:22	8787	3.94	0	-8.01
10/07/2013 14:40	226	2.35	82.5	-6.62	16/07/2013 13:27	8793	3.94	0	-8.12
10/07/2013 14:45	231	2.36	82.5	-6.59	16/07/2013 13:42	8807	3.94	0	-7.84
10/07/2013 14:50	236	2.37	82.5	-6.65	16/07/2013 14:12	8838	3.95	0	-7.78
10/07/2013 15:00	246	2.39	82.5	-6.59					
10/07/2013 15:30	276	2.44	82.5	-6.96					
10/07/2013 15:41	286	2.46	110	-8.16					
10/07/2013 15:45	291	2.46	110	-8.56					
10/07/2013 15:50	295	2.47	110	-8.66					
10/07/2013 15:55	301	2.48	110	-8.72					
10/07/2013 16:10	316	2.50	110	-8.78					
10/07/2013 16:40	346	2.54	110	-8.90					
11/07/2013 08:30	1295	3.11	110	-9.62					
11/07/2013 13:00	1565	3.19	110	-9.70					
11/07/2013 16:30	1776	3.25	110	-9.56					
12/07/2013 08:15	2721	3.43	110	-10.07					
12/07/2013 16:10	3196	3.50	110	-9.99					
15/07/2013 08:24	7050	3.85	110	-10.66					
15/07/2013 16:00	7505	3.88	110	-10.70					
16/07/2013 08:15	8481	3.93	110	-10.60					
16/07/2013 08:25	8491	3.93	110	-10.60					
16/07/2013 09:40	8566	3.93	82.5	-10.24					
16/07/2013 09:45	8571	3.93	82.5	-10.28					
16/07/2013 09:50	8575	3.93	82.5	-10.25					
16/07/2013 09:55	8581	3.93	82.5	-10.30					
16/07/2013 10:10	8596	3.93	82.5	-10.31					
16/07/2013 10:40	8626	3.94	82.5	-10.33					
16/07/2013 10:50	8636	3.94	55	-9.85					
16/07/2013 10:55	8641	3.94	55	-9.81					



Notes:

Project Barnsley
Project No 13012J
Client LANDPAC Ground Engineering Ltd

Test ID
ZLT101

Date of Test 17/7/13 to 23/07/2013

Testing Carried out by

PDS

Test Strata
Test Method

BS1377 Pt 9 Cl 4.2

Groundwater

Unknown

Pad Type

Steel Plate

Location

441857 406284 32.919

Pad Dimensions (mm)

1995 x2005 x 100

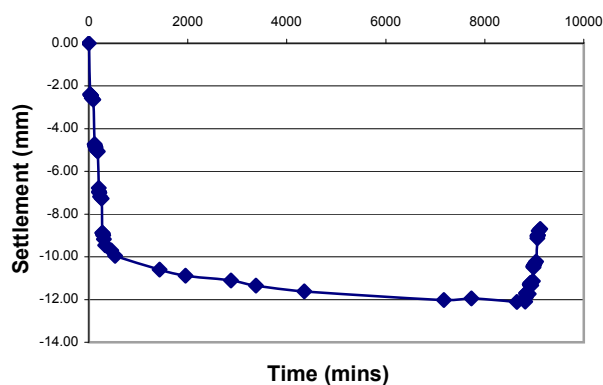
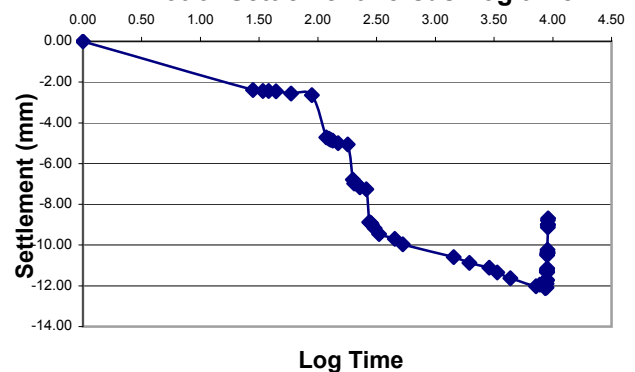
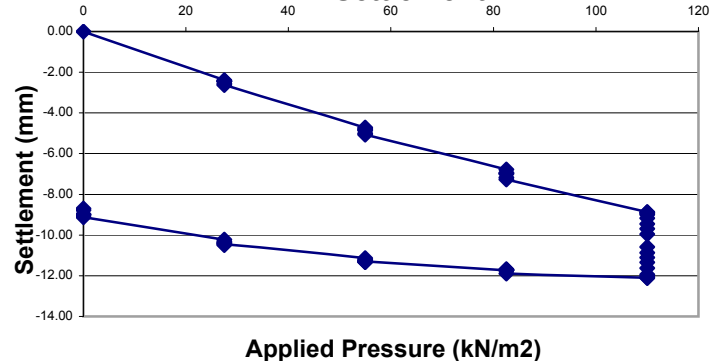
Weather

Mostly 20-30 degrees C (23/7 wet)

Pad Mass (kg)

1500

Date	Time	Log Time	Pressure	Settlement (mm)	Date	Time	Log Time	Pressure	Settlement (mm)
17/07/2013 08:12	0	0.00	0	0.00	23/07/2013 12:40	8909	3.95	55	-11.29
17/07/2013 08:40	28	1.45	27.5	-2.38	23/07/2013 12:45	8913	3.95	55	-11.32
17/07/2013 08:45	34	1.53	27.5	-2.43	23/07/2013 12:50	8918	3.95	55	-11.23
17/07/2013 08:50	38	1.58	27.5	-2.43	23/07/2013 12:55	8924	3.95	55	-11.23
17/07/2013 08:55	44	1.64	27.5	-2.45	23/07/2013 13:10	8938	3.95	55	-11.33
17/07/2013 09:10	59	1.77	27.5	-2.56	23/07/2013 13:40	8969	3.95	55	-11.14
17/07/2013 09:40	89	1.95	27.5	-2.63	23/07/2013 13:50	8979	3.95	27.5	-10.44
17/07/2013 10:10	118	2.07	55	-4.72	23/07/2013 13:55	8983	3.95	27.5	-10.49
17/07/2013 10:15	124	2.09	55	-4.78	23/07/2013 14:00	8989	3.95	27.5	-10.40
17/07/2013 10:20	128	2.11	55	-4.83	23/07/2013 14:05	8993	3.95	27.5	-10.38
17/07/2013 10:25	134	2.13	55	-4.87	23/07/2013 14:20	9008	3.95	27.5	-10.32
17/07/2013 10:40	149	2.17	55	-5.00	23/07/2013 14:50	9038	3.96	27.5	-10.22
17/07/2013 11:10	179	2.25	55	-5.06	23/07/2013 15:10	9059	3.96	0	-9.12
17/07/2013 11:30	198	2.30	82.5	-6.78	23/07/2013 15:15	9063	3.96	0	-9.03
17/07/2013 11:35	204	2.31	82.5	-6.97	23/07/2013 15:20	9069	3.96	0	-8.98
17/07/2013 11:40	208	2.32	82.5	-6.94	23/07/2013 15:25	9073	3.96	0	-8.99
17/07/2013 11:45	214	2.33	82.5	-7.00	23/07/2013 15:40	9089	3.96	0	-8.78
17/07/2013 12:00	228	2.36	82.5	-7.17	23/07/2013 16:10	9118	3.96	0	-8.69
17/07/2013 12:30	259	2.41	82.5	-7.26					
17/07/2013 12:45	273	2.44	110	-8.87					
17/07/2013 12:50	278	2.44	110	-8.89					
17/07/2013 12:55	284	2.45	110	-8.93					
17/07/2013 13:00	288	2.46	110	-8.99					
17/07/2013 13:15	304	2.48	110	-9.17					
17/07/2013 13:45	333	2.52	110	-9.45					
17/07/2013 15:45	453	2.66	110	-9.69					
17/07/2013 17:00	529	2.72	110	-9.96					
18/07/2013 08:00	1429	3.16	110	-10.59					
18/07/2013 16:45	1953	3.29	110	-10.88					
19/07/2013 08:00	2869	3.46	110	-11.11					
19/07/2013 16:25	3374	3.53	110	-11.34					
20/07/2013 08:45	4354	3.64	110	-11.62					
22/07/2013 07:45	7173	3.86	110	-12.02					
22/07/2013 17:00	7729	3.89	110	-11.94					
23/07/2013 08:20	8648	3.94	110	-12.11					
23/07/2013 11:10	8819	3.95	110	-12.09					
23/07/2013 11:20	8828	3.95	82.5	-11.90					
23/07/2013 11:26	8835	3.95	82.5	-11.74					
23/07/2013 11:30	8838	3.95	82.5	-11.69					
23/07/2013 11:35	8844	3.95	82.5	-11.69					
23/07/2013 11:50	8858	3.95	82.5	-11.72					
23/07/2013 12:20	8889	3.95	82.5	-11.74					

Plot of Settlement Versus Time

Plot of Settlement versus Log time

Plot of Applied Pressure versus Settlement

Notes:
Project

Barnsley

Project No

13012J

Client

Landpac Ground Engineering Ltd

Test Ref

ZLT102

Date of Test 25/07/2013 to 30/07/2013

Testing Carried out by

PDS

Test Strata

Test Method

BS1377 Pt 9 Cl 4.2

Groundwater

Unknown

Pad Type

Steel Plate

Location

441954 406075 33.502

Pad Dimensions (mm)

1995 x2005 x 100

Weather

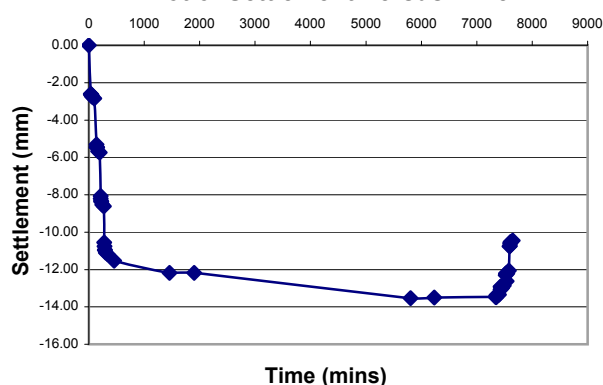
20 degrees C and showery

Pad Mass (kg)

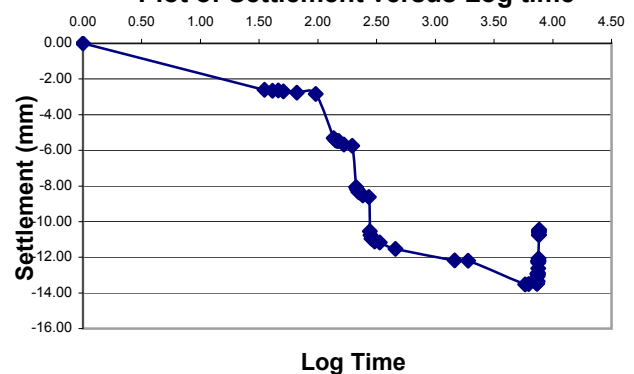
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Date	Time	Log Time	Pressure	Settlement (mm)	Date	Time	Log Time	Pressure	Settlement (mm)
25/07/2013 08:30	0	0.00	0	0.00	30/07/2013 13:50	7521	3.88	27.5	-12.29
25/07/2013 09:05	35	1.54	27.5	-2.60	30/07/2013 13:55	7526	3.88	27.5	-12.21
25/07/2013 09:10	41	1.61	27.5	-2.66	30/07/2013 14:00	7531	3.88	27.5	-12.21
25/07/2013 09:15	46	1.66	27.5	-2.63	30/07/2013 14:05	7536	3.88	27.5	-12.62
25/07/2013 09:20	51	1.71	27.5	-2.70	30/07/2013 14:20	7550	3.88	27.5	-12.22
25/07/2013 09:35	66	1.82	27.5	-2.76	30/07/2013 14:50	7581	3.88	27.5	-12.06
25/07/2013 10:05	96	1.98	27.5	-2.84	30/07/2013 15:00	7591	3.88	0	-10.76
25/07/2013 10:45	136	2.13	55	-5.31	30/07/2013 15:05	7595	3.88	0	-10.73
25/07/2013 10:50	141	2.15	55	-5.44	30/07/2013 15:10	7601	3.88	0	-10.61
25/07/2013 10:55	146	2.16	55	-5.47	30/07/2013 15:15	7606	3.88	0	-10.54
25/07/2013 11:00	151	2.18	55	-5.47	30/07/2013 15:30	7621	3.88	0	-10.51
25/07/2013 11:15	166	2.22	55	-5.67	30/07/2013 16:00	7651	3.88	0	-10.46
25/07/2013 11:45	196	2.29	55	-5.75					
25/07/2013 12:00	211	2.32	82.5	-8.06					
25/07/2013 12:05	215	2.33	82.5	-8.20					
25/07/2013 12:10	221	2.34	82.5	-8.33					
25/07/2013 12:15	226	2.35	82.5	-8.37					
25/07/2013 12:30	241	2.38	82.5	-8.52					
25/07/2013 13:00	271	2.43	82.5	-8.62					
25/07/2013 13:05	276	2.44	110	-10.54					
25/07/2013 13:10	281	2.45	110	-10.76					
25/07/2013 13:15	286	2.46	110	-10.95					
25/07/2013 13:20	291	2.46	110	-10.96					
25/07/2013 13:35	305	2.48	110	-11.11					
25/07/2013 14:05	336	2.53	110	-11.18					
25/07/2013 16:05	456	2.66	110	-11.54					
26/07/2013 08:45	1456	3.16	110	-12.18					
26/07/2013 16:10	1901	3.28	110	-12.19					
29/07/2013 09:18	5808	3.76	110	-13.53					
29/07/2013 16:20	6231	3.79	110	-13.50					
30/07/2013 10:50	7341	3.87	82.5	-13.46					
30/07/2013 10:55	7346	3.87	82.5	-13.49					
30/07/2013 11:00	7351	3.87	82.5	-13.46					
30/07/2013 11:05	7356	3.87	82.5	-13.37					
30/07/2013 11:20	7370	3.87	82.5	-13.36					
30/07/2013 11:50	7401	3.87	82.5	-13.35					
30/07/2013 12:15	7426	3.87	55	-13.07					
30/07/2013 12:20	7431	3.87	55	-12.92					
30/07/2013 12:25	7436	3.87	55	-12.95					
30/07/2013 12:30	7441	3.87	55	-12.92					
30/07/2013 12:45	7456	3.87	55	-12.99					
30/07/2013 13:15	7486	3.87	55	-12.87					

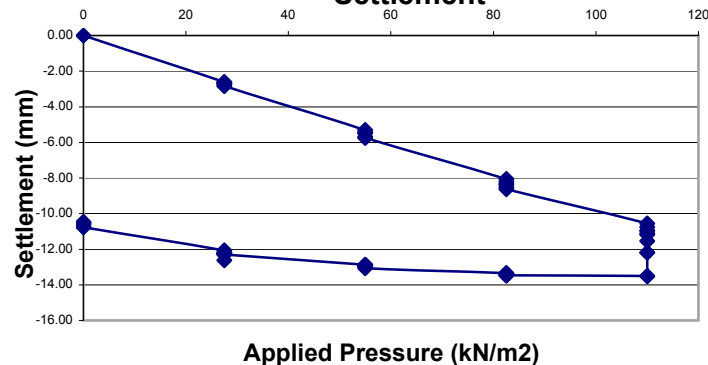
Plot of Settlement Versus Time



Plot of Settlement versus Log time



Plot of Applied Pressure versus Settlement



Notes:

Project

Barnsley

Project No

13012J

Client

Landpac Ground Engineering Ltd

Test Ref

ZLT103

Date of Test 01/08/2013 to 07/08/2013

Testing Carried out by

PDS

Test Strata

Test Method

BS1377 Pt 9 Cl 4.2

Groundwater

Unknown

Pad Type

Steel Plate

Location

441849 406287 33.04

Pad Dimensions (mm)

1995 x2005 x 100

Weather

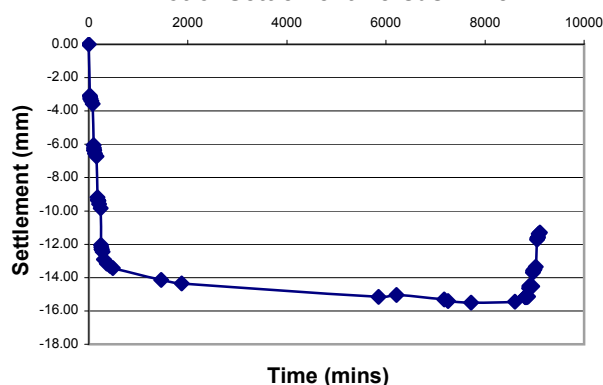
22 degrees C and occasionally wet

Pad Mass (kg)

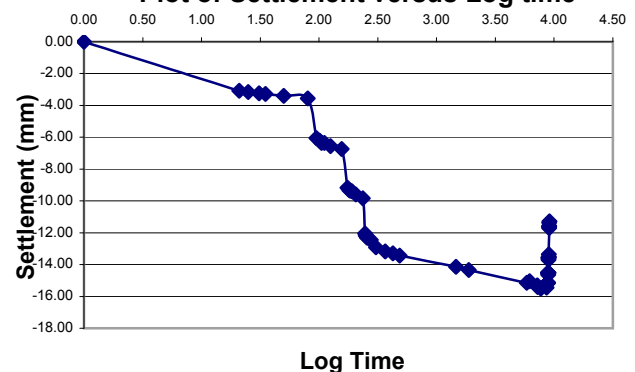
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Date	Time	Log Time	Pressure	Settlement (mm)	Date	Time	Log Time	Pressure	Settlement (mm)
01/08/2013 08:25	0	0.00	0	0.00	07/08/2013 12:35	8890	3.95	55	-14.64
01/08/2013 08:45	21	1.32	27.5	-3.07	07/08/2013 12:40	8896	3.95	55	-14.49
01/08/2013 08:50	25	1.40	27.5	-3.15	07/08/2013 12:45	8900	3.95	55	-14.54
01/08/2013 08:55	31	1.49	27.5	-3.24	07/08/2013 12:50	8905	3.95	55	-14.51
01/08/2013 09:00	35	1.54	27.5	-3.29	07/08/2013 13:05	8921	3.95	55	-14.52
01/08/2013 09:15	50	1.70	27.5	-3.40	07/08/2013 13:35	8950	3.95	55	-14.52
01/08/2013 09:45	80	1.90	27.5	-3.56	07/08/2013 13:50	8966	3.95	27.5	-13.69
01/08/2013 10:00	95	1.98	55	-6.05	07/08/2013 13:55	8970	3.95	27.5	-13.60
01/08/2013 10:05	101	2.00	55	-6.22	07/08/2013 14:00	8976	3.95	27.5	-13.57
01/08/2013 10:10	105	2.02	55	-6.35	07/08/2013 14:05	8980	3.95	27.5	-13.54
01/08/2013 10:15	111	2.05	55	-6.36	07/08/2013 14:20	8995	3.95	27.5	-13.51
01/08/2013 10:30	125	2.10	55	-6.55	07/08/2013 14:50	9025	3.96	27.5	-13.35
01/08/2013 11:00	156	2.19	55	-6.73	07/08/2013 15:15	9050	3.96	0	-11.71
01/08/2013 11:20	175	2.24	82.5	-9.17	07/08/2013 15:20	9056	3.96	0	-11.62
01/08/2013 11:25	181	2.26	82.5	-9.34	07/08/2013 15:25	9060	3.96	0	-11.62
01/08/2013 11:30	185	2.27	82.5	-9.36	07/08/2013 15:30	9066	3.96	0	-11.55
01/08/2013 11:35	191	2.28	82.5	-9.39	07/08/2013 15:45	9080	3.96	0	-11.36
01/08/2013 11:50	205	2.31	82.5	-9.59	07/08/2013 16:15	9111	3.96	0	-11.29
01/08/2013 12:20	236	2.37	82.5	-9.84					
01/08/2013 12:30	246	2.39	110	-12.05					
01/08/2013 12:35	250	2.40	110	-12.18					
01/08/2013 12:40	256	2.41	110	-12.30					
01/08/2013 12:45	260	2.41	110	-12.31					
01/08/2013 13:00	275	2.44	110	-12.45					
01/08/2013 13:30	305	2.48	110	-12.91					
01/08/2013 14:30	365	2.56	110	-13.17					
01/08/2013 15:30	426	2.63	110	-13.30					
01/08/2013 16:30	485	2.69	110	-13.43					
02/08/2013 08:45	1461	3.16	110	-14.14					
02/08/2013 15:42	1877	3.27	110	-14.34					
05/08/2013 09:55	5851	3.77	110	-15.15					
05/08/2013 15:53	6209	3.79	110	-15.04					
06/08/2013 08:00	7176	3.86	110	-15.31					
06/08/2013 09:15	7250	3.86	110	-15.41					
06/08/2013 17:00	7716	3.89	110	-15.50					
07/08/2013 07:50	8606	3.93	110	-15.44					
07/08/2013 11:15	8810	3.94	82.5	-15.17					
07/08/2013 11:20	8815	3.95	82.5	-15.16					
07/08/2013 11:25	8821	3.95	82.5	-15.15					
07/08/2013 11:30	8825	3.95	82.5	-15.11					
07/08/2013 11:45	8841	3.95	82.5	-15.17					
07/08/2013 12:15	8870	3.95	82.5	-15.14					

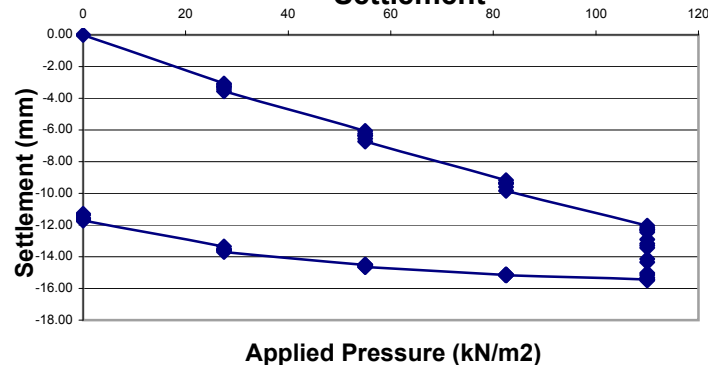
Plot of Settlement Versus Time



Plot of Settlement versus Log time



Plot of Applied Pressure versus Settlement



Notes:

Project

Barnsley

Project No

13012J

Client

Landpac Ground Engineering Ltd

Test Ref

ZLT104