



**Validation Report - DRAFT
Local Centre Blocks B + D**

North Stoneham Park, Eastleigh, SO50 9RH

*Prepared for:
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Romsey*

January 2023

Omnia ref: A11976/1.1



ISO Accredited Certification (UKAS)



Quality Assurance

Project Number: A11738						
January 2023						
 Geo-Environmental	Validation Report					
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1 INTRODUCTION

1.1 Background

Omnia were commissioned by Highwood Construction to provide geo-environmental consultancy support in order to produce a Validation Report for the Local Centre Blocks B & D, at North Stoneham Park Eastleigh, SO50 9RH. A validation report is required in order to assist with discharge of the associated Planning Condition 15 from Eastleigh Borough Council document (Application A/19/87086, dated 11th August 2020) for the phase. It is also required as part of the works as set out within the Remediation Strategy (RS) produced by Ramboll UK Limited (Report Ref: 61033023-MB-ps-RS, dated September 2018).

We have at this stage made reference to the preceding Remediation Strategy for the local centre, and based on this review noted that:

- Groundwater Risk Assessment established that there was low to negligible risk to the groundwater receptor and no elevated concentrations of leachable determinants identified.
- The gas risk assessment has concluded that the area of the local centre presents a credible risk via ground gas accumulation into proposed structures, and therefore gas protection measures are required in the construction of new buildings.

A site location map is presented as Figure 1.0. All references to 'site' within this report refers to the Local Centre Blocks B and D of this development plan.

1.2 Proposed Development

The development is located off Stoneham Lane and Chestnut Avenue, Eastleigh, Hampshire and is a mixed-use development of land separated into four (4no.) stages of development. The development stages are further separated into eight (8no.) phases of works. The entire development has been subject to several Site Investigations and Contaminated Land Investigation Reports carried out by Ramboll and Soils Limited between 2015 and 2016, the findings of which have been used to produce Ramboll's RS.

Blocks B and D comprise commercial buildings, community centre, nursery and residential accommodation above. From the Ground Gas Risk Zoning Plan, drawing no. 61033023-003 (Figure 3.0) produced by Ramboll, the site is classified as CS2 and therefore does require ground gas protection.

A development layout plan is present as Figure 2.0.

1.3 Objectives

The objectives of this Validation Report are to provide a complete record of post-contract works undertaken at the site as set out within the RS. This shall include a detailed summary of the works completed, all necessary laboratory analysis certification, waste transfer notes, any approvals obtained and detailed records of all movements of soil on site supported with chemical validation data. The Validation Report requirements are included within Table 11.1 – Validation Requirements of the RS.

1.4 Scope of Works

Based on the proposed remedial works set out in the agreed RS, the scope of works comprises the following;

- Review of information provided by Highwood Group LLP;
- Production of a Validation Report.

Omnia were not present during site works and have been supplied information by Highwood Group LLP.

1.5 Summary of Parties Involved

Table 1-1 Parties Involved

Name of Party	Function / Interest
Highwood Construction	Developer
Carlton Civil Engineering Ltd	Principal Contractor
Omnia Consulting	Geo-Environmental Consultant
Ramboll UK Limited	Provide Contaminated Land Services including production of a Remediation Strategy

1.6 Limitations

The limitations of this report are presented in Appendix I.

1.7 Confidentiality

Omnia has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Omnia; a charge may be levied against such approval.

2 NORTH STONEHAM PARK – REMEDIATION STRATEGY

The site has undergone several phases of investigation including Ground Investigation carried out by Ramboll 2015-2016. The findings of these investigations form the basis for the RS. The Validation Report requirements are included within Table 11.1 – Validation Requirements within the RS and are summarised below.

- **V1** – Health and safety of ground worker, protection of users of land/water near to the site
- **V2** – Future Site Users from locally impacted PAH and hydrocarbon contamination
- **V3** – Waste
- **V4** – Stockpiles
- **V5** – Services
- **V6** – Additional Investigation
- **V7** – Unexpected Contamination
- **V8** – Imported fill material and soil reuse
- **V9** – Ground Gas
- **V10** – Soil Waste – General
- **V12** – Other.

The RS has been produced to include areas of the development outlined within drawing No. 61033023-002 (Figure 1.0) and includes the Local Centre Blocks B and D. Omnia have reviewed the RS and have been supplied information by Highwood Land LLP to meet the Validation Requirements.

3 VALIDATION REPORT

3.1 V1 – Health and Safety of Ground Worker, Protection of Users of the Land/Water near to the Site.

Carlton Ltd are the appointed sub-contract groundworkers onsite and have supplied Health and Safety risk assessments and method statements for ground works across all stages of the development included within Appendix IV.

Carlton Ltd have included methodology for the following items, documents are included within Appendix IV:

Table 3-1 Carlton Ltd summary of RAMS documentation

Organisation	Reference	Title
PAGeoContracting	n/a	COSHH - Petrol
	n/a	COSHH - SAGR
	n/a	COSHH – Extrusion Beads
	n/a	Manual Handling
	n/a	General Workplace Activity
	n/a	Working in or near Excavations
	n/a	Operation Tasks
	n/a	Environmental
Carlton Ltd	TBC	TBC

No liaisons with an asbestos specialist have been sought as no PACM was encountered during development.

3.2 V2 – Future Site Users from locally impact PAH and Hydrocarbon Contamination.

Local Centre Blocks B and D are not included within the Contamination Constraints Plan (Figure 4.0) and therefore does not require actions under V2 of the RS.

The client has confirmed that the hotspot areas are associated with the adjacent school site and that no works in regard to hotspot removal were required at the Local Centre Blocks B and D.

3.3 V3 – Waste

The client has provided a selection of muckaway records for soils removed from the Local Centre Blocks B and D. A detailed record of waste transfer notes is held by the client, a selection of which is included within Appendix V.

A total of six (6no.) WAC tests were undertaken on soils removed from the site. All six test results indicated Inert Waste Landfill suitability of the removed soils. Laboratory testing certificates are presented in Appendix V.

3.4 V4 – Stockpiles

Stockpiles were managed in accordance with **RAMS FOR STOCKPILES/HEAPS - TBC**, which comply with the criteria set out within 5.2.1 of the RS.

Photographs of stockpiles have been included within Appendix VI.

3.5 V5 – Services

Service trench design, installation photos and supporting evidence is included within Appendix VII.

As set out within the RS Section 7.0, only buried supply pipes present in the vicinity of WS13 and WS28 may require the use of barrier pipe (should Made Ground be present at shallow depths) and as both WS13 and WS28 are located north of the subject area and all hotspot remediation works have been completed off site it is considered that Local Centre Blocks B and D are exempt from the requirement.

3.6 V6 – Additional Investigation

Additional investigation works were suggested as being potentially beneficial by the Ramboll RS, however were not considered essential. It is understood that no additional investigation works have been carried out in the area of the Local Centre Blocks B and D, but that the remedial measures undertaken are sufficient to mitigate the identified risks at the site.

3.7 V7 – Unexpected Contamination

Site notes from the onsite contractor did not identify the presence of any evidence of unexpected contamination within Local Centre Blocks B and D.

3.8 V8 – Imported fill material and soil reuse

It is understood from the client's site records that no imported fill materials have been used in this phase of the development.

Site won material reused at the site comprised Topsoil, described by the appointed soil testing laboratory as a very dark grey slightly moist, friable, slightly calcareous SANDY LOAM.

Topsoil was stripped, stockpiled, and reused within the Local Centre. As far as Omnia are aware, there was no surplus material.

Utilising Flowchart 1 (Appendix VIII) in the RS, the reuse of site won material and topsoil which is not suspected to be contaminated is allowed, providing there is sufficient data to confirm that soils meet the compliance criteria set out within the RS. Omnia consider that sufficient data has been presented during the previous site investigations alongside the further testing presented in Appendix VIII that the topsoil reused can be considered to be compliant with the agreed criteria.

3.9 V9 – Ground Gas

As set out in the agreed RS (Ramboll, 2018) the Local Centre Blocks B & D fall within the area of Ground Gas Zone 1 (Figure 02, revision 03 – Ramboll, 2018) and as such ground gas mitigation measures sufficient for a CS2 site were required across all building footprints.

A selection of photographs and site diary records detailing the CS2 gas protection measures installation are included in Appendix IX alongside independent Verification Reports for the membrane installations produced by Geoshield.

3.10 V10 – Soil Waste – General

Information provided by the client has recorded soil/muck away movements from this phase of the site. From correspondence with the client, Omnia have been informed of TBC movements of material during this phase of the development.

A detailed record of the transfer notes is held by the client, a selection of which is included within Appendix X.

Copies of the waste carrier certificates are provided within Appendix V.

3.11 V11 – Other

No additional information considered pertinent to this phase of development has been provided.

4 DISCUSSION

Based on the information supplied by the client, Omnia consider that:

- Where appropriate, the validation requirements set out within the Remediation Strategy (RS) produced by Ramboll UK Limited (Report Ref: 61033023-MB-ps-RS, Dated September 2018) have been addressed with supporting evidence provided within the attached appendices for the Local Centre Blocks B and D.

APPENDIX I

LIMITATIONS

1. This report and its findings should be considered in relation to the terms of reference and objectives agreed between Omnia and the Client as indicated in Section 1.2.
 2. For the work, reliance has been placed on publicly available data obtained from the sources identified. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. When using the information, it has been assumed it is correct. No attempt has been made to verify the information.
 3. This report has been produced in accordance with current UK policy and legislative requirements for land and groundwater contamination, which are enforced, by the local authority and the Environment Agency. Liabilities associated with land contamination are complex and requires advice from legal professionals.
 4. During the site walkover reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not been made known or accessible.
 5. Access considerations, the presence of services and the activities being carried out on the site limited the locations where sampling locations could be installed and the techniques that could be used.
 6. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.
 7. Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials this is for indicative purposes only and do not constitute or replace full and proper surveys.
 8. The executive summary, conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.
 9. Omnia cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright in this report and other plans and documents prepared by Omnia is owned by them, and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies of this may, however, be made and distributed by the client as is expected in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability or warranties shall be extended to other parties by Omnia in this connection without their explicit written agreement there to by Omnia.
 10. New information, revised practices or changes in legislation may necessitate the re-interpretation of the report, in whole or in part.
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APPENDIX II

GLOSSARY

AST	Above Ground Storage Tank
BGS	British Geological Survey
BSI	British Standards Institute
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CIEH	Chartered Institute of Environmental Health
CIRIA	Construction Industry Research Association
CLEA	Contaminated Land Exposure Assessment
CSM	Conceptual Site Model
DNAPL	Dense Non-Aqueous Phase Liquid (Chlorinated Solvents, PCB)
DWS	Drinking Water Standard
EA	Environment Agency
EQS	Environmental Quality Standard
GAC	General Assessment Criteria
GL	Ground Level
GSV	Gas Screening Value
HCV	Health Criteria Value
ICSM	Initial Conceptual Site Model
LNAPL	Light Non-Aqueous Phase Liquid (Petrol, Diesel, Kerosene)
ND	Not Detected
LMRL	Lower Method Reporting Limit
NR	Not Recorded
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Poly-Chlorinated Biphenyl
PID	Photo-Ionisation Detector
QA	Quality Assurance
SGV	Soil Guideline Value
SPH	Separate Phase Hydrocarbon
TPH (CWG)	Total Petroleum Hydrocarbon (Criteria Working Group)
SPT	Standard Penetration Test
SVOC	Semi Volatile Organic Compound
UST	Underground Storage Tank
VCCS	Vibro Concrete Columns
VOC	Volatile Organic Compound
WTE	Water Table Elevation

UNITS

M	Metres
KM	Kilometres
%	Percent
%V/V	Percent Volume in Air
MB	Milli Bars (Atmospheric Pressure)
L/HR	Litres Per Hour
µG/L	Micrograms Per Litre (Parts Per Billion)
PPB	Parts Per Billion
MG/KG	Milligrams Per Kilogram (Parts Per Million)
PPM	Parts Per Million
MG/M ³	Milligram Per Metre Cubed
M BGL	Metres Below Ground Level
M BCL	Metres Below Cover Level

MAOD	Metres Above Ordnance Datum (Sea Level)
KN/M ²	Kilo Newtons Per Metre Squared
µM	Micrometre

APPENDIX III

DRAWINGS

Figure 1.0 – Project No. 61033023-003 – Figure 1 - Site Location Plan

Figure 2.0 – Development Layout Plan

Figure 3.0 – Project No. 61033023-003 – Figure 2.1 - Ground Gas Zoning Plan

Figure 4.0 – Project No. 61033023-002 – Figure 2.2 - Contamination Constraints Plan

Figure 5.0 – Topsoil stockpiles and re-use

APPENDIX IV
V1 – SUPPORTING EVIDENCE

COSHH Assessment Form

This assessment ***only addresses the risk of harm to health*** from the substances listed. Additional risk assessments may be required to control the risk from other hazards associated with this work/the procedures used.

Assessor. Liam Callaghan	Employer/Supervisor. PAGeocontracting Ltd / Peter Atchison		
Assessment Date. 25 th February 2020	Dates reviewed December 2020, or earlier if circumstances change.		

HAZARDS IDENTIFIED

*If the substance has a R45 or R49 risk phrase or a H350 or H350i hazard statement, it must also be registered on your personal carcinogen return (at Occupational Health) *where exposure is not adequately controlled*.

Substance	Hazardous Properties	Quantity
<u>Unleaded petrol</u>	Harmful by inhalation, skin irritation, carcinogenic, aspiration if swallowed Flammable	Normal delivery to fill generator 15 litres
Application method	Exposure / frequency	Note
Dispensed from a 20 litre jerry can using funnel directly into fuel tank jerrican is returned to PAG company vehicle for storage.	On site environments, well ventilated / 10 minutes per working day	R45 phrase present

What will the product be used for? Fuelling of on-site generator

Who may be exposed? Matt Evans & Operatives of PAGC and people in close proximity

METHODS OF PREVENTION OR CONTROL OF EXPOSURE

(select all that apply by circling/ticking/highlighting the appropriate statement)

1. Engineering controls required - total containment - fume cupboard - local exhaust ventilation - blast screen - Use funnel and drip trays	2. Access control - restricted to competent personnel - special containment facility (give specific area): - Observe no smoking at all times
3. Special procedures - Standard Operating Procedure (SOP) required ☐ - Code of practice, local rules, etc ☐	4. Approved PPE - gloves etc (EN388 : 4141 CAT2, 4121 CAT3) - eye protection (EN166 CAT A) - laboratory coat/overalls (specify type) - other PPE (specify)  

Disposal Procedures⁽¹⁵⁾ (Give details of waste disposal procedure to be used)

- Are chemicals with risk phrases R50-R59 or hazard statements H400 – H413 (environmental hazards) involved? Yes / No

Disposal to comply with Local Authority licensed waste control.

TRAINING REQUIREMENTS

Correct storage, selection, wearing and fitting of PPE. Confirmation of operative understanding of COSHH and this assessment

HANDLING AND STORAGE REQUIREMENTS

(Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc)

Unreactive under stable storage conditions. Secured in bunded area whilst in transit. Load in transit not to exceed amounts stated by the carriage of dangerous goods by road & HSE guidance. Avoid all possible sources of ignition. Avoid excessive heat

ASSESSMENT OF RISK USING CONTROLS DETAILED ABOVE

(Are the hazards/risks suitably controlled, using the control measures detailed above? If not, state the further actions required, e.g. Requirement for a standard operating procedure (SOP), etc).

Reference; PAGeocontracting Ltd. Operational Task, Risk Assessment – Use of generator for power supply (110v)

Authorisation by Employer/Supervisor¹⁹

I confirm that I have considered and understand the chemical to be used and the associated hazards. I am satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.

Print name:

Signed:

Job No: 6858 Q3

Project: Highwood Construction Ltd, Stoneham Lane, Eastleigh, Hants, SO50 9HT.

Date:

Declaration by Employer/Supervisor

I confirm that I have read this COSHH Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated.

Declaration by employee

I confirm that the employee who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.

Name (please print)	Signed	PI countersignature	date

Guidance notes for COSHH assessment form

This form must be completed for every hazardous chemical used within the company. The form must be signed by the employee and their employer/supervisor before the work starts.

- (1) **Assessor:** Insert the name of the person doing this assessment
- (2) **Employer/Supervisor** Insert the name of **the Employer/Supervisor**.
- (3) **Assessment Date:** Insert the date that the assessment form is completed. The assessment is valid for a maximum of 1 year. It must be reviewed after 1 year, or if a significant change occurs (change of lab, pregnancy, etc).
- (4) **Dates reviewed:** all COSHH assessments must be reviewed annually (as a minimum). The review date as entered above, and signed by the assessor to confirm that the assessment is still valid.
- (5) **Substance:** insert name of the chemical to be used. NB. Biological hazards must not be assessed on this COSHH form.
- (6) **Hazardous properties:** insert details of all of the hazardous properties of the chemical – eg. Flammable, explosive, carcinogen, harmful by inhalation, etc).
- (7) **Quantity:** insert quantity to be used (mg, g, ml, etc)
- (8) **Additional information:** Include details of any additional information, including any workplace exposure limits. Detail fully all R/S phrases and H and P statements (it is not sufficient to simply stat R45, full details are needed).
- (9) **Emergency procedures:** provide full details of emergency procedures to be employed following contact with the chemical (skin contact, eye contact, inhalation and ingestion) – such as use of diphoterine, administration of emergency oxygen, etc. Also include details of emergency spill procedures.
- (10) **What will the chemical be used for? Who may be exposed? :** Insert title of experiment or experimental procedure that the chemical is to be used in, and detail who may be exposed (individual worker? People in close proximity? Cleaners? Engineers?).

Methods of prevention or control of exposure

Sections 11-14 detail the methods for preventing or controlling exposure to the chemical. The COSHH hierarchy of control measures should be used when determining the methods to be

used to prevent/control exposure, with engineering and group control measures being employed in preference to individual measures (such as individual PPE).

- (11) **Engineering controls** required: identify the control measures necessary to prevent/control exposure, such as use of a fume cupboard, LEV or blast screen, by circling/ticking/highlighting the appropriate statement(s).
- (12) **Access control:** In order to prevent/control exposure, is it necessary to restrict access to competent personnel? Are special containment facilities required? Please circle/tick/highlight the appropriate statement(s).
- (13) **Special procedures:** please identify any special procedures necessary to prevent/control exposure. This might include the need for an SOP to be developed, or for local rules to be drawn up. Please circle/tick/highlight the appropriate statement(s).
- (14) **Approved PPE:** PPE is to be used as the 'last resort' when preventing/ controlling exposure. Please detail the PPE to be used when handling the chemical. Please circle/tick/highlight the appropriate statement(s) and include details of the type of gloves, etc to be used.
- (15) **Disposal procedures:** Identify whether the chemical is an environmental hazard; Detail fully how the chemical waste is to be disposed of (down sink, by specialist contractor, etc)
- (16) **Training requirements:** detail any specialised training requirements that must be met before the work can begin – eg. Attendance on a gas safety course, etc).
- (17) **Handling and storage requirements:** Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc.
- (18) **Assessment of risk using controls detailed above:** Are the hazards/risks suitably controlled, using the control measures detailed above? Provide details; If not controlled, state the further actions required, eg. Requirement for a standard operating procedure (SOP), etc.
- (19) **Authorisation by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that they have considered and understand the chemical to be used and the associated hazards, and that they are satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.
- (20) **Declaration by employee:** the employee must sign and date the assessment to confirm that they have read the COSHH Assessment, understand the hazards and risks involved and will follow all of the safety procedures stated.

- (21) **Declaration by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that the researcher is competent to undertake the work.

COSHH Assessment Form

This assessment ***only addresses the risk of harm to health*** from the substances listed. Additional risk assessments may be required to control the risk from other hazards associated with this work/the procedures used.

Assessor. Liam Callaghan	Employer/Supervisor. PAGeocontracting Ltd / Peter Atchison		
Assessment Date. 25 th February 2020	Dates reviewed December 2020, or earlier if circumstances change.		

HAZARDS IDENTIFIED

*If the substance has a R45 or R49 risk phrase or a H350 or H350i hazard statement, it must also be registered on your personal carcinogen return (at Occupational Health) *where exposure is not adequately controlled*.

Substance	Hazardous Properties	Quantity
<u>SAGR – Self adhesive gas resistant membrane</u>	Bitumen	6 m/sq and 20m/sq
Application method	Exposure / frequency	
Hot air application and pressure rolling	Manual handling with gloves in a well ventilated area / 4 hours or less (Internally), Externally no time limit.	

What will the product be used for.

Gas membrane application to detailing of pipe penetrations and sealing to concrete structures

Who may be exposed: Matt Evans & Operatives of PAGC and people in close proximity.

- a) Hard Hat. EN397
- b) Safety Boots. EN ISO 20345 SB
- c) Hi Viz Vest EN 471 2003
- d) Full Hand Protection. EN388 (4141 CAT2, 4121 CAT3)
- e) Task Specific Safety Glasses EN 166 CA

METHODS OF PREVENTION OR CONTROL OF EXPOSURE

(select all that apply by circling/ticking/highlighting the appropriate statement)

1. Engineering controls required - total containment - fume cupboard - local exhaust ventilation - blast screen	2. Access control (Not applicable) - restricted to competent personnel - special containment facility (give specific area):
3. Special procedures - Standard Operating Procedure (SOP) required ☐ - Code of practice, local rules, etc ☐	4. Approved PPE - gloves etc (EN388 : 4141 CAT2, 4121 CAT3) - eye protection (EN166 CAT A) - laboratory coat/overalls (specify type) - other PPE (specify)  

Disposal Procedures⁽¹⁵⁾ (Give details of waste disposal procedure to be used)

- Are chemicals with risk phrases R50-R59 or hazard statements H400 – H413 (environmental hazards) involved? Yes / No

Disposal to comply with Local Authority licensed waste control.

TRAINING REQUIREMENTS.

Installed to manufacturers specification and conform in accordance with QUN 846

HANDLING AND STORAGE REQUIREMENTS.

Stored in an enclosed location, avoid wet conditions and extreme heat environments, possible flammable

conditions.

ASSESSMENT OF RISK USING CONTROLS DETAILED ABOVE

(Are the hazards/risks suitably controlled, using the control measures detailed above? If not, state the further actions required, e.g. Requirement for a standard operating procedure (SOP), etc).

Reference;

Authorisation by Employer/Supervisor¹⁹

I confirm that I have considered and understand the chemical to be used and the associated hazards. I am satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.

Print Name:

Signed:

Job No: 6858 Q3

Project: Highwood Construction Ltd, Stoneham Lane, Eastleigh, Hants, SO50 9HT.

Date:

Declaration by Employer/Supervisor

I confirm that I have read this COSHH Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated.

Declaration by employee

I confirm that the employee who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.

Name (please print)	Signed	PI countersignature	date

Guidance notes for COSHH assessment form

This form must be completed for every hazardous chemical used within the company. The form must be signed by the employee and their employer/supervisor before the work starts.

- (1) **Assessor:** Insert the name of the person doing this assessment
- (2) **Employer/Supervisor** Insert the name of **the Employer/Supervisor**.
- (3) **Assessment Date:** Insert the date that the assessment form is completed. The assessment is valid for a maximum of 1 year. It must be reviewed after 1 year, or if a significant change occurs (change of lab, pregnancy, etc).
- (4) **Dates reviewed:** all COSHH assessments must be reviewed annually (as a minimum). The review date as entered above, and signed by the assessor to confirm that the assessment is still valid.
- (5) **Substance:** insert name of the chemical to be used. NB. Biological hazards must not be assessed on this COSHH form.
- (6) **Hazardous properties:** insert details of all of the hazardous properties of the chemical – e.g. Flammable, explosive, carcinogen, harmful by inhalation, etc).
- (7) **Quantity:** insert quantity to be used (mg, g, ml, etc)
- (8) **Additional information:** Include details of any additional information, including any workplace exposure limits. Detail fully all R/S phrases and H and P statements (it is not sufficient to simply state R45, full details are needed).
- (9) **Emergency procedures:** provide full details of emergency procedures to be employed following contact with the chemical (skin contact, eye contact, inhalation and ingestion) – such as use of diphoterine, administration of emergency oxygen, etc. Also include details of emergency spill procedures.
- (10) **What will the chemical be used for? Who may be exposed? :** Insert title of experiment or experimental procedure that the chemical is to be used in, and detail who may be exposed (individual worker? People in close proximity? Cleaners? Engineers?).

Methods of prevention or control of exposure

Sections 11-14 detail the methods for preventing or controlling exposure to the chemical. The COSHH hierarchy of control measures should be used when determining the methods to be used to prevent/control exposure, with engineering and group control measures being employed in preference to individual measures (such as individual PPE).

- (11) **Engineering controls** required: identify the control measures necessary to prevent/control exposure, such as use of a fume cupboard, LEV or blast screen, by circling/ticking/highlighting the appropriate statement(s).
- (12) **Access control:** In order to prevent/control exposure, is it necessary to restrict access to competent personnel? Are special containment facilities required? Please circle/tick/highlight the appropriate statement(s).
- (13) **Special procedures:** please identify any special procedures necessary to prevent/control exposure. This might include the need for an SOP to be developed, or for local rules to be drawn up. Please circle/tick/highlight the appropriate statement(s).
- (14) **Approved PPE:** PPE is to be used as the 'last resort' when preventing/ controlling exposure. Please detail the PPE to be used when handling the chemical. Please circle/tick/highlight the appropriate statement(s) and include details of the type of gloves, etc to be used.
- (15) **Disposal procedures:** Identify whether the chemical is an environmental hazard; Detail fully how the chemical waste is to be disposed of (down sink, by specialist contractor, etc)
- (16) **Training requirements:** detail any specialised training requirements that must be met before the work can begin – eg. Attendance on a gas safety course, etc).
- (17) **Handling and storage requirements:** Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc.
- (18) **Assessment of risk using controls detailed above:** Are the hazards/risks suitably controlled, using the control measures detailed above? Provide details; If not controlled, state the further actions required, eg. Requirement for a standard operating procedure (SOP), etc.
- (19) **Authorisation by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that they have considered and understand the chemical to be used and the associated hazards, and that they are satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.
- (20) **Declaration by employee:** the employee must sign and date the assessment to confirm that they have read the COSHH Assessment, understand the hazards and risks involved and will follow all of the safety procedures stated.
- (21) **Declaration by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that the researcher is competent to undertake the work.



Environmental

<u>Activity</u>	<u>Environment at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Movement of contaminated product on clothing, boots, plant and equipment	Relocation of product ie Japanese knot weed, oil, petrol to affect un-contaminated environments	New plant grown and damage to property. Endanger other flora and fauna's habitats Cancerogenic / dermatologic consequences with prolonged skin contact	3 x 4 = 12			Cleaning and wash down of equipment following activity on site known to be affected. Use disposable overalls if site conditions stipulate or deemed necessary. Wash working clothing regularly	2 x 3 = 6		
Use of generator for power supply (110V)	Noise pollution. Exhaust fumes. Fuel consumption.	Combustion of fuel source. Noise and exhaust pollution	3 x 5 = 15			Locate in a well-ventilated area and use LEV to direct fume to a safe outlet. Minimise running times and observe permitted working times. Refuel in allocated areas using drip trays and a funnel. Refuel from a designated fuel can. No smoking/naked flames. Ensure plant is serviced to manufacturer's guidelines	2 x 3 = 6		

						and inspected prior to use.	
<u>Activity</u>	<u>Environment at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>
			<u>L</u>	<u>C</u>	<u>R L</u>		<u>L</u> <u>C</u> <u>R L</u>
Disposal of Bitumen based primers, silicon sealants and mastics.	Impact to ground conditions and /or watercourse	Combustion of product or misused and burnt. Ground contamination.	4	x 4	= 16	Store product as guidance under COSHH. Maintain clean work area. Use warning notices or cordon off work area/skips to restrict direct contact. Disposal in accordance with local authority guidelines. Operate spill protection measures and have spill kits available for such events.	2 x 3 = 6

<u>Activity</u>	<u>Environment at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Driving to/from site	CO2 pollution	Global warming	5 x 5 = 25			Minimise journeys, reduce vehicle weight, and drive within speed limits. Use alternative means if appropriate or vehicle share.	4 x 3 = 12		
Disposal of packaging and wrapping		Littering. Endanger wildlife	4 x 4 = 16			Disposal in accordance with local authority guidelines and site guidance if applicable. Ensure small items are bagged to prevent being blown out of skips. Recycle products identified by the manufacturer. Good housekeeping.	3 x 2 = 6		

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1
Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1
Risk Level (RL) = 17 -25 Take action immediately / 10 – 16 Tolerable / 5 – 9 Adequate / 1 – 4 Acceptable

Assessment by; Liam Callaghan.

Date: 25/2/20

Position: Project Manager

Review Date: December 2020

COSHH Assessment Form

This assessment <i>only addresses the risk of harm to health</i> from the substances listed. Additional risk assessments may be required to control the risk from other hazards associated with this work/the procedures used.			
Assessor. Liam Callaghan		Employer/Supervisor. PAGeocontracting Ltd / Peter Atchison	
Assessment Date. 25 th February 2020		Dates reviewed December 2020, or earlier if circumstances change.	
HAZARDS IDENTIFIED *If the substance has a R45 or R49 risk phrase or a H350 or H350i hazard statement, it must also be registered on your personal carcinogen return (at Occupational Health) <i>where exposure is not adequately controlled.</i>			
Substance <u>Extrusion Beads</u>	Hazardous Properties Harmful by inhalation, skin irritation, Burns to skin	Quantity Normal delivery to fill extrusion hopper = 2kgs	
Application method Dispensed from a decommissioned water dispenser container using funnel directly into hopper	Exposure / frequency In an external environment there are no occupational exposure limits.	Note	
What will the product be used for? Re-filling of Polyethylene to extrusion welding machines to activate fusing of sheet materials			
Who may be exposed? Matt Evans & Operatives of PAGC and people in close proximity			

METHODS OF PREVENTION OR CONTROL OF EXPOSURE

(select all that apply by circling/ticking/highlighting the appropriate statement)

1. Engineering controls required - total containment - fume cupboard - local exhaust ventilation - blast screen - Use funnel and drip trays to avoid spilling of product	2. Access control - restricted to competent personnel - special containment facility (give specific area): - Observe no smoking at all times
3. Special procedures - Standard Operating Procedure (SOP) required ☐ - Code of practice, local rules, etc ☐	4. Approved PPE - gloves etc (EN388 : 4141 CAT2, 4121 CAT3) - eye protection (EN166 CAT A) - laboratory coat/overalls (specify type) - other PPE (specify)  

Disposal Procedures ⁽¹⁵⁾ (Give details of waste disposal procedure to be used)

- Are chemicals with risk phrases R50-R59 or hazard statements H400 – H413 (environmental hazards) involved?

Yes / No

Disposal to comply with Local Authority licensed waste control.

Control Symbols,



Irritant



Hot when melting

TRAINING REQUIREMENTS

Correct storage, selection, wearing and fitting of PPE. Confirmation of operative understanding of COSHH and this assessment. Understanding via Tool Box talk of technical data relating to this product

HANDLING AND STORAGE REQUIREMENTS

(Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc)

Unreactive under stable storage conditions.

Fire Fighting measures.



ASSESSMENT OF RISK USING CONTROLS DETAILED ABOVE

(Are the hazards/risks suitably controlled, using the control measures detailed above? If not, state the further actions required, e.g. Requirement for a standard operating procedure (SOP), etc).

Reference; PAGEocontracting Ltd. Operational Task, Risk Assessment – Operational Tasks, Using Triac Heat Gun and Extrusion welders

Authorisation by Employer/Supervisor¹⁹

I confirm that I have considered and understand the chemical to be used and the associated hazards. I am satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.

Print Name:

Signed:

Job No: 6858 Q3

Project: Highwood Construction Ltd, Stoneham Lane, Eastleigh, Hants, SO50 9HT. Date:

--

Declaration by Employer/Supervisor

I confirm that I have read this COSHH Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated.

Declaration by employee

I confirm that the employee who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.

Name (please print)	Signed	PI countersignature	date

Guidance notes for COSHH assessment form

This form must be completed for every hazardous chemical used within the company. The form must be signed by the employee and their employer/supervisor before the work starts.

- (1) **Assessor:** Insert the name of the person doing this assessment
- (2) **Employer/Supervisor** Insert the name of **the Employer/Supervisor**.
- (3) **Assessment Date:** Insert the date that the assessment form is completed. The assessment is valid for a maximum of 1 year. It must be reviewed after 1 year, or if a significant change occurs (change of lab, pregnancy, etc).
- (4) **Dates reviewed:** all COSHH assessments must be reviewed annually (as a minimum). The review date as entered above, and signed by the assessor to confirm that the assessment is still valid.
- (5) **Substance:** insert name of the chemical to be used. NB. Biological hazards must not be assessed on this COSHH form.
- (6) **Hazardous properties:** insert details of all of the hazardous properties of the chemical – e.g. Flammable, explosive, carcinogen, harmful by inhalation, etc).
- (7) **Quantity:** insert quantity to be used (mg, g, ml, etc)
- (8) **Additional information:** Include details of any additional information, including any workplace exposure limits. Detail fully all R/S phrases and H and P statements (it is not sufficient to simply state R45, full details are needed).
- (9) **Emergency procedures:** provide full details of emergency procedures to be employed following contact with the chemical (skin contact, eye contact, inhalation and ingestion) – such as use of diphoterine, administration of emergency oxygen, etc. Also include details of emergency spill procedures.
- (10) **What will the chemical be used for? Who may be exposed? :** Insert title of experiment or experimental procedure that the chemical is to be used in, and detail who may be exposed (individual worker? People in close proximity? Cleaners? Engineers?).

Methods of prevention or control of exposure

Sections 11-14 detail the methods for preventing or controlling exposure to the chemical. The COSHH hierarchy of control measures should be used when determining the methods to be used to prevent/control exposure, with engineering and group control measures being employed in preference to individual measures (such as individual PPE).

- (11) **Engineering controls** required: identify the control measures necessary to prevent/control exposure, such as use of a fume cupboard, LEV or blast screen, by circling/ticking/highlighting the appropriate statement(s).
- (12) **Access control:** In order to prevent/control exposure, is it necessary to restrict access to competent personnel? Are special containment facilities required? Please circle/tick/highlight the appropriate statement(s).
- (13) **Special procedures:** please identify any special procedures necessary to prevent/control exposure. This might include the need for an SOP to be developed, or for local rules to be drawn up. Please circle/tick/highlight the appropriate statement(s).
- (14) **Approved PPE:** PPE is to be used as the 'last resort' when preventing/ controlling exposure. Please detail the PPE to be used when handling the chemical. Please circle/tick/highlight the appropriate statement(s) and include details of the type of gloves, etc to be used.
- (15) **Disposal procedures:** Identify whether the chemical is an environmental hazard; Detail fully how the chemical waste is to be disposed of (down sink, by specialist contractor, etc)
- (16) **Training requirements:** detail any specialised training requirements that must be met before the work can begin – eg. Attendance on a gas safety course, etc).
- (17) **Handling and storage requirements:** Note any special requirements e.g. ventilation, chemical incompatibility, flash point, etc.
- (18) **Assessment of risk using controls detailed above:** Are the hazards/risks suitably controlled, using the control measures detailed above? Provide details; If not controlled, state the further actions required, eg. Requirement for a standard operating procedure (SOP), etc.
- (19) **Authorisation by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that they have considered and understand the chemical to be used and the associated hazards, and that they are satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to as low a level as reasonably practicable.
- (20) **Declaration by employee:** the employee must sign and date the assessment to confirm that they have read the COSHH Assessment, understand the hazards and risks involved and will follow all of the safety procedures stated.
- (21) **Declaration by Employer/Supervisor:** the employer/supervisor must sign and date the assessment, to confirm that the researcher is competent to undertake the work.



Manual Handling.

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			<u>L</u>	<u>C</u>	<u>R L</u>		<u>L</u>	<u>C</u>	<u>R L</u>
Moving Loads	PAG operatives	Incorrect lifting technique (lifting, pulling, pushing, holding, reaching, carrying, twisting, lowering, standing)	4	x	4 = 16	Training on manual handling and refresh when needed or job changes via Tool box talks. 2 operatives to load/unload vehicles at all times.	3	x	2 = 6
Moving Loads	PAG operatives	Weight and size of load is excessive leading to MSD (Musculoskeletal disorders) Material weight's are on notice board inside container	4	x	4 = 16	Break weight into smaller denominations, use mechanical aids, seek assistance with additional operatives, to use 4 wheel trolley between vehicle and store.	3	x	2 = 6
Moving Loads	PAG operatives	Uneven surfaces resulting in slips, trips and falls	4	x	4 = 16	Check route to be taken is clear of debris and obstructions. Reduce time carrying load and take rests between loads.	3	x	2 = 6
Moving Loads	PAG operatives	Falling Loads of stacked material.	4	x	3 = 12	Secure loads with strapping on sound level surface. Use appropriate PPE	3	x	2 = 6

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Mechanical Moving of loads	Plant operator PAG operative Banksman	Crushing by moving plant, falling or swinging load	4	x	4 = 16	All loads to be slung by an appointed person. Use suitable lifting aids that have been inspected. Wear appropriate PPE during lifting. Plant movement directed by appointed Banksman.	3	x	3 = 9
Mechanical Moving of Plant	PAG Operatives	Failure of lifting aids leading to falling of loads and crushing	4	x	4 = 16	All loads to be slung by an appointed person. Use suitable lifting aids that have been inspected. Wear appropriate PPE during lifting.	3	x	3 = 9
General lifting operations	PAG operatives Assisting operatives	An operative's general health must be considered which could be affected by manual handling operations.	3	x	4 = 12	Prior assessment/health monitoring of operatives. Manual handling refresher/toolbox talks when situations are identified.	2	x	2 = 4

Page 2 of 2

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1
Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1
Risk Level (RL) = 17 -25 Take action immediately / 10 – 16 Tolerable / 5 – 9 Adequate / 1 – 4 Acceptable

Assessment by; Liam Callaghan.

Date: 25/2/20

Position: Project Manager

Review Date: December 2020

- **Risk Assessment:** Highwood Construction Ltd, Stoneham Lane, Eastleigh, Hants, SO50 9HT.

Job No: 6858 Q3



General Workplace Activity.

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
General site attendance	PAG operatives	Plant movements resulting in crushing or impact injuries.	4	x	5 = 20	Comply with site traffic management systems; adhere to appointed Banksman's instruction when vehicle movements are in progress. Use designated pedestrian walkways. Wear Hi Viz PPE	3	x	4 = 12
General site attendance	PAG operatives. Other site operatives	Dust & fibre particles, smoke and fume inhalation causing breathing/ respiratory conditions.	4	x	5 = 20	Use approved PPE & RPE (see H&S Policy) and LEV, attend training/tool box talks when conditions arise. Comply with SSW and permit to work controls.	3	x	4 = 12
General site attendance	PAG operatives	Unstable walking/working platform. Poorly installed sub base. Potential of falling through voids	4	x	4 = 16	Visual inspection prior to entering the area. Complete sub base inspection formalities and report fail points. Do not proceed until correct. Remain on known surfaces	3	x	3 = 9

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
General site attendance	PAG operatives	Extreme weather conditions, from sun, rain, wind, frost resulting in sun burn, MSD from cold/wet exposure, lack of dexterity in frost.	4	x	5 = 20	Use approved PPE (see H&S Policy), take breaks to recover body warmth, rehydrate as guided by medical advice, apply sun screen. Attend tool box talks	3	x	3 = 9
General Site attendance	PAG operative	Airborne particles resulting in eye injuries.	4	x	5 = 20	Use approved PPE under H&S Policy that is maintained to a recommended standard and stored in accordance with manufacturer's instructions.	2	x	3 = 6
General site attendance	PAG operatives	Poor personal hygiene and possible infection transmission from hand to mouth/objects contact.	4	x	4 = 16	Wear gloves to reduce contact with dirty environments, apply barrier cream prior to work and wash hands thoroughly at the end of every working period and/or before urinating, eating & drinking.	2	x	2 = 4
General site attendance	PAG operative	Difficult site conditions underfoot. Mud, rutted, icy, waterlogged, slopes. Potential slip, trips and falls	3	x	4 = 12	If conditions restrict / limited regular walking, and pathway is not visible do not proceed. Use signposted routes and appointed walkways	2	x	2 = 4

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			<u>L</u>	<u>C</u>	<u>R L</u>		<u>L</u>	<u>C</u>	<u>R L</u>
General site attendance	PAG operatives	Contact with contaminants (water/ground conditions/vermin/waste products)	3	x 4	= 12	Uses approved PPE & RPE as guided under H&S policy, and insure any prior skin cuts are covered with waterproof dressing. Follow good hygiene practice as stated above.	2	x 3	= 6
General site attendance	PAG operatives	Working below other trades.	3	x 5	= 15	Attend daily work planning meeting if conducted. Plan access and exit to work areas to avoid trades above. Avoid working under other trades unless a safety net / debris barrier is installed.	2	x 4	= 8
General site attendance	PAG operative	Individual working.	4	x 5	= 20	Comply with site induction and signing in and out register. Notify line manager and on site manager of your activity. Implement a SSW for individual working with checks and reporting in.	3	x 4	= 12
General site attendance	PAG operatives. Other site operatives	Noise from non PAG related activity in close vicinity to PAG working area	4	x 3	= 15	Maintain observations to other trades preparing to operate noise generating appliances. Programme working location with site management team to reduce likelihood of encountering noise related activity	2	x 3	= 6

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1

Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1

Risk Level (RL) = **17 -25 Take action immediately** / **10 – 16 Tolerable** / **5 – 9 Adequate** / **1 – 4 Acceptable**

Assessment by; Liam Callaghan.

Date: 25/2/20

Position: Project Manager

Review Date: December 2020

**Operational Tasks**

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			<u>L</u>	<u>C</u>	<u>R L</u>		<u>L</u>	<u>C</u>	<u>R L</u>
Manual cutting of membranes/textiles using scissors	PAG operatives	Cuts or punctures to skin	3 x 3 = 9			Use approved hand protection in accordance with PAGC H&S policy. Use and store scissors as guided in training.	1 x 3 = 3		
Mechanical cutting	PAG operatives	Cutting of skin. Electric shock. Inhalation/eye impact of waste product	3 x 4 = 12			Operate cutting device in accordance with manufactures guidelines and training. Adhere to PAGC H&S policy guidelines to hand, RPE and eye protection. Ensure plant carries valid PAT cert, use RCD on 110v supply	2 x 4 = 8		
Using Twinny welding systems	PAG operative	Burns to operator operator's skin & other close proximity trades. Fumes. Combustion and fire. Electric shock. Crushing of fingers in feed rollers.	3 x 4 = 12			Operate as trained and specified by manufacturer. ensure plant carries valid PAT cert, use RCD on 110v supply. Adhere to site specific Hot works SSW. Maintain clean work area. Use warning notices or cordon off work area to restrict direct contact.	1 x 4 = 4		
<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual</u>		

			L	C	RL		Risk		
							L	C	RL
Using Triac Heat Gun and Extrusion welders	PAG operatives	Burning of operator’s skin & other close proximity trades. Fumes. Combustion and fire. Electric shock	4 x 4 = 16			Operate as trained and specified by manufacturer. Insure plant carries valid PAT cert, use RCD on 110v supply. Adhere to site specific Hot works SSW. Maintain clean work area. Use warning notices or cordon off work area to restrict direct contact. Adhere to Coshh controls for extrusion beads	2 x 4 = 8		
Drilling	PAG operatives	Vibration, dust/ particle inhalation, eye impact, noise. Electric shock	4 x 4 = 16			Monitor / assess timing of task to minimise exposure. Use PPE as approved under H&S Policy. . Ensure plant carries valid PAT cert, use RCD on 110v supply.	2 x 4 = 8		
Electrical supply to power tools (110v)	PAG operatives	Electric shocks	3 x 4 = 12			Use appointed site power source if available. Gain permission to connect. Ensure plant and extension leads carry valid PAT cert, use only 110v supply on RCD. Carry out visual inspections of appliances prior to use	1 x 3 = 3		
Use of generator for power supply (110V)	PAG operative Other site operatives	Electric shocks. Combustion of fuel source. Noise and exhaust pollution	3 x 5 = 15			Locate in a well-ventilated area and use LEV to direct fume to a safe outlet. Minimise running times and observe load rating. Refuel in allocated areas using drip trays/bunds and a funnel. Refuel from a designated fuel can. No smoking/naked flames. Ensure plant is serviced to manufacturer’s guidelines and visual inspection prior to use.	2 x 3 = 6		

Page 2 of 4

Activity	Persons at Risk	Hazards	Risk			Control Measures	Residual Risk		
			L	C	R L		L	C	R L
Using LPG flame sources	PAG operative	Burns, combustion, fumes	3 x 5 = 15			Maintain clean work area. Use warning notices or cordon off work area to restrict direct contact. Operate to site specific hot works SSW and have fire fighting measures or fire plan in place as of the SSW. Only use trigger active torches, minimising time of flame ignition. Store LPG bottles under COSHH guidelines.	2 x 3 = 6		
Using Bitumen based primers, silicon sealants and mastics.	PAG operative	Skin contact irritation, ingestion, eye contact, combustion.	4 x 4 = 16			Observe PAGC H&S policy to specific PPE & PRE measures. Store product as guidance under COSHH. No smoking and observe good hygiene practice after use. Maintain clean work area. Use warning notices or cordon off work area to restrict direct contact.	2 x 3 = 6		
Deploying membrane / holding down systems	PAG operatives Other site trades General public	Airborne sections of material in high wind causing whipping, striking injuries	4 x 4 = 16			Do not deploy in high wind or gusty conditions. Allocate and position holding down materials, complete TBT of operational procedures prior to deployment of membrane	2 x 3 = 6		
Working on sub base formation. Block and beam, sand blinded and membranes	PAG operatives	Falling through voids, slipping and tripping	3 x 4 = 12			Visual inspection of sub base prior to accessing. Identify variations in levels, inspection chambers, edges and thickenings and cordon off. Observe warning signs and barriers. Assess membrane suitability for access in wet or icy weather and ensure SSW are observed.	1 x 3 = 6		
Page 3 of 4									

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	RL		L	C	RL
Fixing and handling GRP battening	PAG operatives	Skin irritation and/or splinters from GRP. Dust inhalation	4 x 3 = 12			Observe PAGC H&S policy to hand and eye protection measures. Ensure LEV	1 x 2 = 2		
Applying Bitumen self-adhesive products	PAG operatives	Burning of operator's skin. Spitting of bitumen, becoming airborne and coming into skin / eye contact	3 x 3 = 9			Observe PAGC H&S policy to hand and eye protection measures. Cover arms when applying wide sections of self-adhesive, or if applying using LPG heat source.	2 x 3 = 6		

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1
Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1
Risk Level (RL) = 17 -25 Take action immediately / 10 – 16 Tolerable / 5 – 9 Adequate / 1 – 4 Acceptable

Assessment by; Liam Callaghan.

Date: 25/2/20

Position: Project Manager

Review Date: December 2020



Working in or near Excavations.

Page 1 of 2

<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Preparing to work in excavation	PAG operatives	Excavation liable to collapse if not suitably supported	4	x	5 = 20	Inspection by competent person before commencing work, apply risk controls such as props, shoring & suitable access	3	x	3 = 9
Walking near excavations	PAG operatives Other site operatives	Falling into excavation	3	x	4 = 12	Fence area off, use of warning signs, cover area over with suitable materials when access is not required	2	x	2 = 4
Working in excavation	PAG operatives	Material falling into excavation	3	x	3 = 9	Use PPE (hard hat), protect edges using toe boards, keep materials/plant away from excavation edge	2	x	2 = 4
Working in excavation	PAG operative	Overcome by fumes from vehicles or plant	3	x	3 = 9	Site plant that generates exhaust away from	2	x	2 = 4

		exhaust		excavation or duct away, use LEV in excavation					
<u>Activity</u>	<u>Persons at Risk</u>	<u>Hazards</u>	<u>Risk</u>			<u>Control Measures</u>	<u>Residual Risk</u>		
			L	C	R L		L	C	R L
Vehicle movements near excavation	Operatives in excavation	Vehicle falling into excavation	3 x 5 = 15			Stop barriers to protect excavation, guard rails and toe boards. Secure fencing with routine inspection. Use of Banksman for all vehicle movements.	2 x 3 = 6		
Working in excavation	Operatives in excavation	Underground services, gas, water & electric	3 x 5 = 15			Signage identifying hazard, permit to work system. Location (CAT) scanning area prior to working. Refer to site plans to confirm locations	2 x 3 = 6		

Assessment by: Liam Callaghan. Signed by:

Date: 25/2/20

Position: Project Manager

Review Date: December 2020

Likelihood (L) = Frequent,5 / Probable,4 / Occasional,3 / Improbable, 2 / Remote, 1

Consequence (C) = Catastrophic, 5 / Major, 4 / Moderate, 3/ Minor, 2 / Insignificant, 1

Risk Level (RL) = 17 -25 Take action immediately / 10 – 16 Tolerable / 5 – 9 Adequate / 1 – 4 Acceptable

APPENDIX V
V3 – SUPPORTING EVIDENCE

M.A.C CONTRACTING LTD

BULK EXCAVATION & RECYCLING

M.A.C

- Specialists in Muck Away
- Tipper Haulage and Plant Hire
- Suppliers of Road Planings
- Hardcore & Recycled Aggregates

M.A.C. Contracting Ltd.
Somborne Chalk Quarry, Kings Somborne,
Stockbridge SO20 6QR

Tel: 02476 641 771

Email: info@maccontracting.co.uk

Mobile: 07968 499 124

Waste Carrier Licence: CB/DU82366

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by regulation 12 of the Waste (England and Wales) Regulations 2011

www.maccontracting.co.uk

Required by Schedule 5 Part 2 of the Weights and Measures Act 1963. Subject to Conditions of Sale (available on request)

Name of Buyer

Carlton C.E

SITE (Address of Place of Loading)

Stoneham
Eastleigh

Print Name

Conveyance and
Transfer No.

30916

Date

6-4-21

Driver

DAVE

Registration No.

XX62MAE

TIP (Address of Place of Delivery)

haver
warren

Signature of Acceptance

Print Name:

Volume Carried

Description of Material Carried

Tick

EWG Code

SIC Code

8w

Grab

No. of Loads

Hardcore

170107

43.12

Soil & Stone

170504

43.12

Planings

170302

42.11

Other (specify)

CCAY

LOAD DETAILS

DAYWORK DETAILS

Gross Weight

Travelling Time

Tare Weight

Time On Site

750

Time Off Site

815

Net Weight

Total Time

Site Signature

M.A.C CONTRACTING LTD

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Required by Schedule 5 Part 2 of the Weights and Measures Act 1963. Subject to Conditions of Sale (available on request)

Name of Buyer

Carlton C.E

SITE (Address of Place of Loading)

Stoneham

Conveyance and Transfer No.

25692

Date

6/4/21

Driver

Quentin

Registration No.

FF65MAC

TIP (Address of Place of Delivery)

Hammer Warren
Verwood

Signature of Acceptance

Print Name

Print Name:

Description of Material Carried

Tick

EWG Code

SIC Code

8w

Grab

No. of Loads

Hardcore

170107

43.12

Soil & Stone

170504

43.12

Planings

170302

42.11

Other (specify)

M/A Clay

✓

LOAD DETAILS

DAYWORK DETAILS

Gross Weight

Travelling Time

Time On Site

8.37

Tare Weight

Time Off Site

Total Time

Net Weight

Site Signature

Offshore

2nd 2nd

At the 1st 1st 1st 1st

1st 1st



5 1st 1st

2 1st 1st

1 1st 1st

6 1st 1st

7 1st 1st

3 1st 1st

4 1st 1st

Material Testing

RF/CA161

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
Report No: 19-16536		Date Sampled	25/11/19		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
Landfill Waste Acceptance Criteria Limits																																							
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6	--	--																																					
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500	--	--																																					
100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Carlton Civil Engineering Ltd		Time Sampled	None Supplied																																				
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA161																																				
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																																				
Order No: \NL09695		Depth (m)	0.10																																				
Reporting Date: 29/11/2019		Sample No	449170																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	<0.1																																					
Loss on Ignition	%	<0.01																																					
BTEX ^{MU}	mg/kg	<0.005																																					
Sum of PCBs	mg/kg	<0.7																																					
Mineral Oil ^{MU}	mg/kg	<6																																					
Total PAH ^{MU}	mg/kg	<1.7																																					
pH ^{MU}	pH Units	+ / - 0.1																																					
Acid Neutralisation Capacity	mol/kg (+/-)	N/a																																					
Eluate Analysis		10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																																	
Arsenic ^U		< 0.01			< 0.1	0.5	2	25																															
Barium ^U		< 0.02			< 0.2	20	100	300																															
Cadmium ^U		< 0.0005			< 0.005	0.04	1	5																															
Chromium ^U		< 0.005			< 0.05	0.5	10	70																															
Copper ^U		< 0.01			< 0.1	2	50	100																															
Mercury ^U		< 0.0005			< 0.005	0.01	0.2	2																															
Molybdenum ^U		< 0.001			< 0.01	0.5	10	30																															
Nickel ^U		< 0.007			< 0.07	0.4	10	40																															
Lead ^U		< 0.005			< 0.05	0.5	10	50																															
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5																															
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		< 0.005			< 0.05	4	50	200																															
Chloride ^U		1			11	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		1			13	1000	20000	50000																															
TDS		18			180	4000	60000	100000																															
Phenol Index		< 0.01			< 0.1	1	-	-																															
DOC		5			50.3	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)		0.11																																					
Dry Matter (%)		84.5																																					
Moisture (%)		18.4																																					
Stage 1																																							
Volume Eluate L10 (litres)		0.88																																					

Results are expressed on a dry weight basis, after correction for moisture content where applicable
 Stated limits are for guidance only and Inertech Waste Consultancy Ltd and the laboratory cannot be held responsible for any discrepancies with current legislation
 M Denotes MCERTS accredited test
 U Denotes ISO17025 accredited test

Please note this data is presented by Inertech Waste Consultancy Ltd and is a true copy of the original test certificate results. For further information please contact the office

Sample GPS Coordinates

SU44069 17612

Material Testing

RF/CA162

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
Report No: 19-16536		Date Sampled	25/11/19		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
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100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Carlton Civil Engineering Ltd		Time Sampled	None Supplied																																				
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA162																																				
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																																				
Order No: \NL09695		Depth (m)	0.15																																				
Reporting Date: 29/11/2019		Sample No	449171																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	<0.1																																					
Loss on Ignition	%	<0.01																																					
BTEX ^{MU}	mg/kg	<0.005																																					
Sum of PCBs	mg/kg	<0.7																																					
Mineral Oil ^{MU}	mg/kg	<6																																					
Total PAH ^{MU}	mg/kg	<1.7																																					
pH ^{MU}	pH Units	+ / - 0.1																																					
Acid Neutralisation Capacity	mol/kg (+/-)	N/a																																					
Eluate Analysis		10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																																	
Arsenic ^U		< 0.01			< 0.1	0.5	2	25																															
Barium ^U		< 0.02			< 0.2	20	100	300																															
Cadmium ^U		< 0.0005			< 0.005	0.04	1	5																															
Chromium ^U		< 0.005			< 0.05	0.5	10	70																															
Copper ^U		0.01			0.1	2	50	100																															
Mercury ^U		< 0.0005			< 0.005	0.01	0.2	2																															
Molybdenum ^U		< 0.001			< 0.01	0.5	10	30																															
Nickel ^U		< 0.007			< 0.07	0.4	10	40																															
Lead ^U		< 0.005			< 0.05	0.5	10	50																															
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5																															
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		0.011			0.11	4	50	200																															
Chloride ^U		1			10	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		5			48	1000	20000	50000																															
TDS		37			370	4000	60000	100000																															
Phenol Index		< 0.01			< 0.1	1	-	-																															
DOC		9.8			98.4	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)		0.11																																					
Dry Matter (%)		79.3																																					
Moisture (%)		26.2																																					
Stage 1																																							
Volume Eluate L10 (litres)		0.88																																					

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 M Denotes MCERTS accredited test
 U Denotes ISO17025 accredited test

Please note this data is presented by Inertech Waste Consultancy Ltd and is a true copy of the original test certificate results. For further information please contact the office

Sample GPS Coordinates

SU 44105 17602

Material Testing

RF/CA163

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
Report No: 19-16536		Date Sampled	25/11/19		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
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500	--	--																																					
100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Carlton Civil Engineering Ltd		Time Sampled	None Supplied																																				
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA163																																				
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																																				
Order No: \NL09695		Depth (m)	0.30																																				
Reporting Date: 29/11/2019		Sample No	449172																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	<0.1																																					
Loss on Ignition	%	<0.01																																					
BTEX ^{MU}	mg/kg	<0.005																																					
Sum of PCBs	mg/kg	<0.7																																					
Mineral Oil ^{MU}	mg/kg	<6																																					
Total PAH ^{MU}	mg/kg	<1.7																																					
pH ^{MU}	pH Units	+ / - 0.1																																					
Acid Neutralisation Capacity	mol/kg (+/-)	N/a																																					
Eluate Analysis		10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																																	
Arsenic ^U		< 0.01			< 0.1	0.5	2	25																															
Barium ^U		< 0.02			< 0.2	20	100	300																															
Cadmium ^U		< 0.0005			< 0.005	0.04	1	5																															
Chromium ^U		< 0.005			< 0.05	0.5	10	70																															
Copper ^U		< 0.01			< 0.1	2	50	100																															
Mercury ^U		< 0.0005			< 0.005	0.01	0.2	2																															
Molybdenum ^U		< 0.001			< 0.01	0.5	10	30																															
Nickel ^U		< 0.007			< 0.07	0.4	10	40																															
Lead ^U		< 0.005			< 0.05	0.5	10	50																															
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5																															
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		< 0.005			< 0.05	4	50	200																															
Chloride ^U		< 1			< 10	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		1			13	1000	20000	50000																															
TDS		13			130	4000	60000	100000																															
Phenol Index		< 0.01			< 0.1	1	-	-																															
DOC		4.5			44.5	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)		0.11																																					
Dry Matter (%)		82.4																																					
Moisture (%)		21.4																																					
Stage 1																																							
Volume Eluate L10 (litres)		0.88																																					

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 M Denotes MCERTS accredited test
 U Denotes ISO17025 accredited test

Please note this data is presented by Inertech Waste Consultancy Ltd and is a true copy of the original test certificate results. For further information please contact the office

Sample GPS Coordinates

SU 44070 17562

Material Testing

RF/CA164

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2									
Report No: 19-16536		Date Sampled	25/11/19		Landfill Waste Acceptance Criteria Limits				
Carlton Civil Engineering Ltd		Time Sampled	None Supplied						
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA164		Inert Waste Landfill Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill Hazardous Waste Landfill				
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied						
Order No: \NL09695		Depth (m)	0.70						
Reporting Date: 29/11/2019		Sample No	449173						
Determinand	Unit	MDL							
TOC ^{MU}	%	<0.1			3%				
Loss on Ignition	%	<0.01			--				
BTEX ^{MU}	mg/kg	<0.005			6				
Sum of PCBs	mg/kg	<0.7			1				
Mineral Oil ^{MU}	mg/kg	<6			500				
Total PAH ^{MU}	mg/kg	<1.7			100				
pH ^{MU}	pH Units	+ / - 0.1			--				
Acid Neutralisation Capacity	mol/kg (+/-)	N/a			--				
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic ^U		< 0.01				< 0.1	0.5	2	25
Barium ^U		< 0.02				< 0.2	20	100	300
Cadmium ^U		< 0.0005				< 0.005	0.04	1	5
Chromium ^U		< 0.005				< 0.05	0.5	10	70
Copper ^U		< 0.01				< 0.1	2	50	100
Mercury ^U		< 0.0005				< 0.005	0.01	0.2	2
Molybdenum ^U		< 0.001				< 0.01	0.5	10	30
Nickel ^U		< 0.007				< 0.07	0.4	10	40
Lead ^U		< 0.005				< 0.05	0.5	10	50
Antimony ^U		< 0.005				< 0.05	0.06	0.7	5
Selenium ^U		< 0.005				< 0.05	0.1	0.5	7
Zinc ^U		< 0.005				< 0.05	4	50	200
Chloride ^U		< 1				< 10	800	15000	25000
Fluoride ^U		< 0.5				< 5	10	150	500
Sulphate ^U		2				19	1000	20000	50000
TDS		16				160	4000	60000	100000
Phenol Index		< 0.01				< 0.1	1	-	-
DOC		5.4				54.4	500	800	1000
Leach Test Information									
Sample Mass (kg)			0.10						
Dry Matter (%)			86						
Moisture (%)			16.2						
Stage 1									
Volume Eluate L10 (litres)			0.89						
Results are expressed on a dry weight basis, after correction for moisture content where applicable Stated limits are for guidance only and Inertech Waste Consultancy Ltd and the laboratory cannot be held responsible for any discrepancies with current legislation M Denotes MCERTS accredited test U Denotes ISO17025 accredited test									

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Sample GPS Coordinates

SU 44070 17562

Material Testing

RF/CA165

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
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6	--	--																																					
1	--	--																																					
500	--	--																																					
100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Carlton Civil Engineering Ltd		Time Sampled	None Supplied																																				
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA165																																				
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																																				
Order No: \NL09695		Depth (m)	0.80																																				
Reporting Date: 29/11/2019		Sample No	449174																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	<0.1																																					
Loss on Ignition	%	<0.01																																					
BTEX ^{MU}	mg/kg	<0.005																																					
Sum of PCBs	mg/kg	<0.7																																					
Mineral Oil ^{MU}	mg/kg	<6																																					
Total PAH ^{MU}	mg/kg	<1.7																																					
pH ^{MU}	pH Units	+ / - 0.1																																					
Acid Neutralisation Capacity	mol/kg (+/-)	N/a																																					
Eluate Analysis		10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																																	
Arsenic ^U		< 0.01			< 0.1	0.5	2	25																															
Barium ^U		< 0.02			< 0.2	20	100	300																															
Cadmium ^U		< 0.0005			< 0.005	0.04	1	5																															
Chromium ^U		< 0.005			< 0.05	0.5	10	70																															
Copper ^U		< 0.01			< 0.1	2	50	100																															
Mercury ^U		< 0.0005			< 0.005	0.01	0.2	2																															
Molybdenum ^U		0.002			0.02	0.5	10	30																															
Nickel ^U		< 0.007			< 0.07	0.4	10	40																															
Lead ^U		< 0.005			< 0.05	0.5	10	50																															
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5																															
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		< 0.005			< 0.05	4	50	200																															
Chloride ^U		2			17	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		23			226	1000	20000	50000																															
TDS		92			920	4000	60000	100000																															
Phenol Index		< 0.01			< 0.1	1	-	-																															
DOC		11.4			114	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)		0.10																																					
Dry Matter (%)		86.9																																					
Moisture (%)		15.2																																					
Stage 1																																							
Volume Eluate L10 (litres)		0.89																																					

Results are expressed on a dry weight basis, after correction for moisture content where applicable
 Stated limits are for guidance only and Inertech Waste Consultancy Ltd and the laboratory cannot be held responsible for any discrepancies with current legislation
 M Denotes MCERTS accredited test
 U Denotes ISO17025 accredited test

Please note this data is presented by Inertech Waste Consultancy Ltd and is a true copy of the original test certificate results. For further information please contact the office

Sample GPS Coordinates

SU 44197 17545

Material Testing

RF/CA166

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																				
Report No: 19-16536		Date Sampled	25/11/19		Landfill Waste Acceptance Criteria Limits																															
Carlton Civil Engineering Ltd		Time Sampled	None Supplied																																	
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA166																																	
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																																	
Order No: \NL09695		Depth (m)	1.00		<table border="1"> <tr> <td>Inert Waste Landfill</td> <td>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</td> <td>Hazardous Waste Landfill</td> </tr> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </table>					Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill																																		
3%	5%	6%																																		
--	--	10%																																		
6	--	--																																		
1	--	--																																		
500	--	--																																		
100	--	--																																		
--	>6	--																																		
--	To be evaluated	To be evaluated																																		
Reporting Date: 29/11/2019		Sample No	449175																																	
Determinand	Unit	MDL																																		
TOC ^{MU}	%	<0.1																																		
Loss on Ignition	%	<0.01																																		
BTEX ^{MU}	mg/kg	<0.005																																		
Sum of PCBs	mg/kg	<0.7																																		
Mineral Oil ^{MU}	mg/kg	<6																																		
Total PAH ^{MU}	mg/kg	<1.7																																		
pH ^{MU}	pH Units	+ / - 0.1																																		
Acid Neutralisation Capacity		mol/kg (+/-)		N/a																																
Eluate Analysis			10:1 mg/l			Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)																													
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Mercury ^U		< 0.0005				< 0.005	0.01	0.2	2																											
Molybdenum ^U		< 0.001				< 0.01	0.5	10	30																											
Nickel ^U		< 0.007				< 0.07	0.4	10	40																											
Lead ^U		< 0.005				< 0.05	0.5	10	50																											
Antimony ^U		< 0.005				< 0.05	0.06	0.7	5																											
Selenium ^U		< 0.005				< 0.05	0.1	0.5	7																											
Zinc ^U		0.009				0.09	4	50	200																											
Chloride ^U		2				17	800	15000	25000																											
Fluoride ^U		< 0.5				< 5	10	150	500																											
Sulphate ^U		11				107	1000	20000	50000																											
TDS		53				530	4000	60000	100000																											
Phenol Index		< 0.01				< 0.1	1	-	-																											
DOC		9.7				96.5	500	800	1000																											
Leach Test Information																																				
Sample Mass (kg)			0.10																																	
Dry Matter (%)			89.6																																	
Moisture (%)			11.6																																	
Stage 1																																				
Volume Eluate L10 (litres)			0.89																																	

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 U Denotes ISO17025 accredited test

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Sample GPS Coordinates

SU 44110 17568

Material Testing

RF/CA160

www.inertechwasteconsultancy.com
inertech@hotmail.co.uk

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																							
Report No: 19-16536		Date Sampled	25/11/19		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
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1	--	--																																					
500	--	--																																					
100	--	--																																					
--	>6	--																																					
--	To be evaluated	To be evaluated																																					
Carlton Civil Engineering Ltd		Time Sampled	None Supplied																																				
C/O Highwood Construction, Block B&D Center, Stoneham Lane Eastleigh		TP / BH No	RF/CA160																																				
Project / Job Ref: Highwood Construction, Blocks B&D		Additional Refs	None Supplied																																				
Order No: \NL09695		Depth (m)	0.80																																				
Reporting Date: 29/11/2019		Sample No	449169																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	<0.1																																					
Loss on Ignition	%	<0.01																																					
BTEX ^{MU}	mg/kg	<0.005																																					
Sum of PCBs	mg/kg	<0.7																																					
Mineral Oil ^{MU}	mg/kg	<6																																					
Total PAH ^{MU}	mg/kg	<1.7																																					
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Lead ^U		< 0.005			< 0.05	0.5	10	50																															
Antimony ^U		< 0.005			< 0.05	0.06	0.7	5																															
Selenium ^U		< 0.005			< 0.05	0.1	0.5	7																															
Zinc ^U		< 0.005			< 0.05	4	50	200																															
Chloride ^U		< 1			< 10	800	15000	25000																															
Fluoride ^U		< 0.5			< 5	10	150	500																															
Sulphate ^U		4			37	1000	20000	50000																															
TDS		32			320	4000	60000	100000																															
Phenol Index		< 0.01			< 0.1	1	-	-																															
DOC		8.1			81.3	500	800	1000																															
Leach Test Information																																							
Sample Mass (kg)		0.12																																					
Dry Matter (%)		78.3																																					
Moisture (%)		27.8																																					
Stage 1																																							
Volume Eluate L10 (litres)		0.88																																					

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 U Denotes ISO17025 accredited test

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Sample GPS Coordinates

SU44092 17596

APPENDIX VI
V4 – SUPPORTING EVIDENCE





APPENDIX VII
V5 – SUPPORTING EVIDENCE





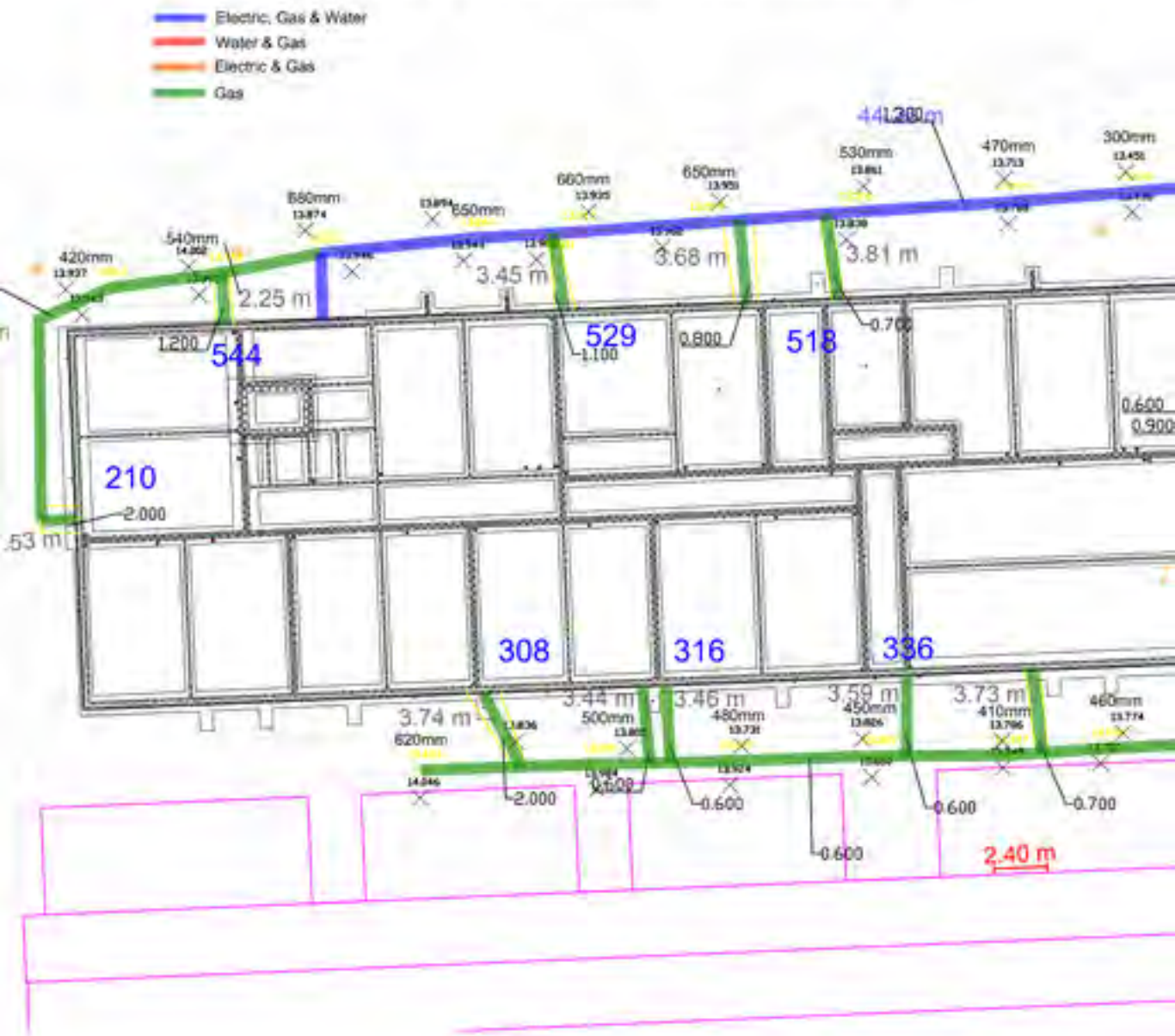










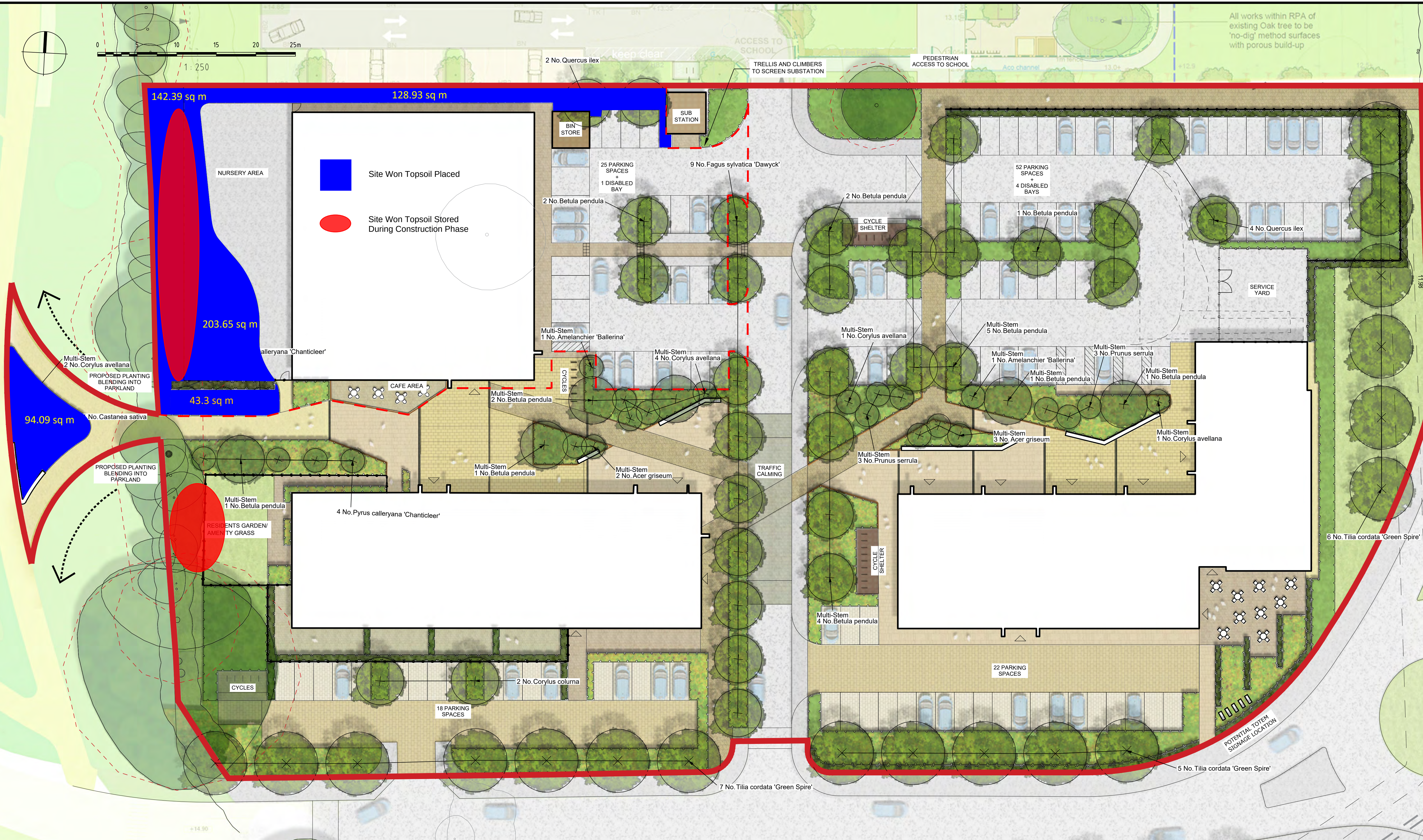








APPENDIX VIII
V8 – SUPPORTING EVIDENCE



NOTES:

- This drawing is to be read in conjunction with all relevant contract drawings and specifications with any conflicting information to be brought to the attention of Deacon Design before works commence on site.
- Do not scale from this drawing, always work to noted dimensions.
- All given dimensions in mm.

KEY

- Application Site Boundary
- Extent of EBC Land
- Soft Landscape
 - Existing tree planting to be retained / RPA shown dashed
 - Existing hedgerow vegetation to be retained and enhanced
 - Existing tree planting to be removed
 - Proposed tree planting
 - Proposed native/ ornamental and shrub/ groundcover planting for primary/ secondary areas
 - Proposed native/ ornamental and shrub/ groundcover planting for tertiary/ quaternary areas
 - Proposed formal hornbeam hedge
 - Proposed wildflower meadow

Landscape Specification

Implementation

All planting to be carried out at appropriate time within the first planting season post completion and maintained for a period of up to 5 years to ensure successful establishment. Recommended planting times.

- Wildflower / Lawn seed mix - First sow (April to June) / Secondary (August - September)
- Container Grown Planting - All year round (except during periods of frosts)
- Bareroot/Rootball Stock - November (After first frost) - March

It is the contractor's responsibility to check for services in this area before groundworks commence.

Growing Medium

Existing topsoil, ripped to a depth of 300mm, the full remaining depth replaced with BS 3882 Multipurpose Grade topsoil supplemented with PAS100 compost of spent mushroom compost at a depth of 100mm. Topsoil should be friable.

Trees and shrubs to be grown in accordance with NPS.

Trees - tree pits to be 300mm larger than the rootball on all sides with the base of the pit broken up. Heavy Standard trees to be double staked.

Planting Shrubs - to be planted in prepared beds, back filled and firmed to nursery level.

After planting all trees and shrubs are to be well watered, lightly firmed, mulched with 75mm of FSC certified mulch ensuring no damage to the plants. Rabbit proof fencing maybe required to protect the establishment of the plants.

Wildflower Meadow

A native seed mix has been proposed for the woodland edge to encourage a species rich / woodland edge meadow to establish. In the first year, wildflower should be cut short to a minimum height of 100mm during July/August to reduce competition with annual weed growth and encourage the development of groundcover. Once established, providing the weed species have been controlled through regular cutting, the grassland should be allowed to flower and set seed naturally.

Management and Maintenance

Establishment - Trees and shrubs will be watered to ensure they thrive through dry weather and re-firmed after strong winds or frost heave

Annual Maintenance - Trees and Shrubs - Tree ties to be adjusted, to be checked for damaged branches/stem and pruned in accordance with good horticultural practice. Where they have died or failed to thrive they will be replaced, incorporating a slow release fertilizer as per manufacturers rates, topping up mulch to ensure 75mm depth.

FINAL

15.04.20	DA	Minor amendments to Community Building	D	PD
07.02.19	PM	Amended following planner's comments	C	JH
30.11.18	PM	Issued for Planning	B	JH
27.11.18	PM	Amended application site boundary, added parking bays and substation	A	JH

DATE	DRAWN	DESCRIPTION OF REVISION	REVISION LETTER	CHECKED BY

DRAWING STATUS

FOR PLANNING

D

DEACON DESIGN

Landscape Architecture | Masterplanning | Urban Design

12a The Square, Wickham, Hampshire PO17 5JQ

Tel: 01329 557 820 Email: info@deacondesign.co.uk

Copyright Deacon Design

PROJECT TITLE:

North Stoneham Local Centre

PROJECT NUMBER:

DD239

PLOT DATE:

21.11.2018

DRAWING SCALE:

1:250

APPROVED BY:

JH

PAPER SIZE:

A1

DRAWN BY:

PM

DRAWING TITLE:

Planting Strategy

1 of 2

-

DRAWING NUMBER:

DD239L03

REVISION LETTER:

D

DRAWING FILE LOCATION:

Z:\090box (Deacon Design Ltd)\03 PROJECTS 200+DD239 North Stoneham Local Centre\04-Drawings\AutoCAD-Landscape Design\DD239L03_Planting Strategy - Local Centre.dwg

Tree planting			
Species Name	Common Name	Specification	No.
Acer griseum	Paperbark maple	Multi-Stemmed :RB	14 No.
Amelanchier 'Ballerina'	-	Multi-Stemmed :RB	5 No.
Betula pendula	Common Silver Birch	Extra Heavy Standard :RB	5 No.
Betula pendula	Common Silver Birch	Multi-Stemmed :RB	20 No.
Castanea sativa	Sweet Chestnut	Extra Heavy Standard :RB	1 No.
Corylus avellana	Common Hazel	Multi-Stemmed :RB	20 No.
Corylus colurna	Turkish Hazel	Heavy Standard :RB	3 No.
Fagus sylvatica 'Dawyc'	Dawyc Beech	Extra Heavy Standard :RB	9 No.
Pyrus calleryana 'Chanticleer'	Ornamental Pear	Extra Heavy Standard :RB	7 No.
Prunus serrula	Multi-Stemmed :RB	Multi-Stemmed :RB	6 No.
Quercus ilex	Holly oak	Extra Heavy Standard :RB	6 No.
Tilia cordata 'Green Spire'	Green Spire Lime	Extra Heavy Standard :RB	22 No.

Ornamental shrub planting to primary and secondary areas			
Species Name	Common Name		
Abelia grandiflora 'Compacta'	-		
Cistus corbariensis	Rock Rose		
Cistus salvifolius 'prostratus'	Sage leaf Rock Rose		
Cornus alba 'Elegantissima'	Silver Dogwood		
Cornus sanguinea	Common Dogwood		
Cornus sanguinea 'Midwinter Fire'	Dogwood 'Midwinter Fire'		
Corylus avellana	Common Hazel		
Daphne odora 'Aureomarginata'	Gold-edged winter daphne		
Euonymus alatus 'Compactus'	-		
Euonymus fortunei 'Dart's Blanket'	Euonymus 'Dart's Blanket'		
Hebe 'Heartbreaker'	-		
Hebe 'Silver Queen'	-		
Hydrangea arborescens 'Grandiflora'	-		
Hypericum calycinum	Aaronsbeard St. Johnswort		
Osmanthus delavayi	Delavay tea olive		

Perovskia 'Blue Spire'	-
Philadelphus coronarius 'Aureus'	Golden-leafed Mock Orange
Photinia fraseri 'Red Robin'	Christmas berry
Pieris japonica 'Bonfire'	-
Pinus mugo	dwarf pine
Rosa 'Kent'	Rose 'Kent'
Sarcococca confusa	Sweet Box
Skimmia confusa 'Kew Green'	Skimmia 'Kew Green'
Viburnum opulus	Guelder Rose
Viburnum opulus 'Compactum'	-

Ornamental herbaceous/grasses planting to primary and secondary areas	
Achillea millefolium 'Lilac Beauty'	-
Ajuga reptans 'Multicolor'	-
Anemone hybrida 'Queen Charlotte'	-
Aquilegia Songbird Series	-
Asplenium scolopendrium	Hart's Tongue Fern
Astrantia major 'Hadspen Blood'	Masterwort 'Hadspen Blood'
Bergenia 'Silberlicht'	Elephant's Ears 'Silberlicht'
Deschampsia cespitosa 'Goldtau'	-
Dryopteris dilatata	Spreading wood fern
Echinacea purpurea	-
Geranium cinereum 'Carol'	-
Helleborus orientalis	Lenten Rose
Liriope muscari	Big blue lily turf
Luzula sylvatica	-
Miscanthus sinensis 'Morning Light'	-
Pachysandra terminalis	Japanese spurge
Primula vulgaris	-
Salvia nemorosa 'Amethyst'	Balkan clary 'Amethyst'
Vinca minor 'Illumination' (v)	lesser periwinkle 'Illumination'

Ornamental planting to tertiary and quaternary areas (low maintenance)	
Carex oshimensis 'Evergold'	Sedge
Cornus sanguinea 'Mid-Winter Fire'	Dogwood
Cornus stolonifera 'Flaviramea'	Dogwood
Daphne odora 'Aureomarginata'	Gold-edged winter daphne
Deschampsia cespitosa	Tufted Hair-grass
Euonymus fortunei 'Dart's Blanket'	Euonymus 'Dart's Blanket'
Hedera helix 'Green Ripple'	Ivy
Hydrangea quercifolia	Oakleaf hydrangea
Iris pseudacorus	Yellow Iris
Lavandula intermedia 'Grosso'	English Lavender 'Grosso'
Miscanthus 'morning light'	Ornamental Grass
Philadelphus 'Belle Etoile'	Mock Orange
Photinia fraseri 'Red Robin'	Christmas Berry 'Red Robin'
Rosa 'Kent'	Rose
Salvia nemorosa 'Amethyst'	Balkan clary 'Amethyst'
Sarcococca confusa	Christmas Box
Spiraea japonica 'Magic Carpet'	-
Viburnum davidii	-
Viburnum x bodnantense 'Dawn'	-

Hedgerow Planting (Native)	
Acer campestre	Field Maple
Corylus avelana	Hazel
Crataegus monogyna	Hawthorn
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn
Rosa canina	Dog-rose
Viburnum lantana	Wayfaring Tree
Viburnum opulus	Guelder Rose

Hedgerow Planting (Formal)	
Carpinus betulus	Hornbeam (to define rear garden boundaries)

Meadow Mix	
EM1 - Basic general purpose meadow mixture	
Achillea millefolium	Yarrow
Wildflowers	
Centaura nigra	Common Knapweed
Daucus carota	Wild Carrot
Galium verum	Lady's Bedstraw
Leucanthemum vulgare	Oxeye Daisy
Poterium sanguisorba - (Sanguisorba minor)	Salad Burnet
Prunella vulgaris	Selfheal
Ranunculus acris	Meadow Buttercup
Rumex acetosa	Common Sorrel
Silene dioica	Red Campion
Grasses	
Agrostis capillaris	Common Bent
Cynosurus cristatus	Crested Dogstail
Festuca rubra	Slender-creeping Red-fescue
Phleum bertolonii	Smaller Cat's-tail

01

L03

Outline Planting Schedule

NTS

Note: To be read in conjunction with DD240Y04A_Hierarchy of Landscape Spaces

M.A.C CONTRACTING LTD

BULK EXCAVATION & RECYCLING

M.A.C

- Specialists in Muck Away
- Tipper Haulage and Plant Hire
- Suppliers of Road Planings
- Hardcore & Recycled Aggregates

M.A.C. Contracting Ltd.

Somborne Chalk Quarry, Kings Somborne,
Stockbridge SO20 6QR

Tel: 02476 641 771

Email: info@maccontracting.co.uk

Mobile: 07968 499 124

Waste Carrier Licence: CB/DU82366

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by regulation 12 of the Waste (England and Wales) Regulations 2011

www.maccontracting.co.uk

Required by Schedule 5 Part 2 of the Weights and Measures Act 1963. Subject to Conditions of Sale (available on request)

Name of Buyer

CARLTON C.E.

Conveyance and Transfer No.

31896

Date

1/4/21

Driver

N PARSONS

Registration No.

NN18MAC

SITE (Address of Place of Loading)

ECO

TIP (Address of Place of Delivery)

STONEHAM LANE
KEASTLEWELL

Signature of Acceptance

Print Name

Print Name:

Volume Carried

Description of Material Carried

Tick

EWG Code

SIC Code

8w

Grab

No. of Loads

Hardcore

170107

43.12

Soil & Stone

170504

43.12

Planings

170302

42.11

Other (specify)

15-20m ECO SOIL

LOAD DETAILS

DAYWORK DETAILS

Gross Weight

Travelling Time

Time On Site

Tare Weight

Time Off Site

Total Time

Net Weight

Site Signature

APPENDIX IX
V9 – SUPPORTING EVIDENCE



GEOSHIELD

Verification Report



PROJECT REFERENCE: GEO101032/ 6858

REPORT NUMBER: 003 REPORT DATE: 23 July 2020

PROJECT: North Stoneham Park

PROJECT ADDRESS: Stoneham

Eastleigh

SO50 9HT

MEMBRANE SPECIFICATION: Verified in accordance with CIRIA 735.

Design in accordance to BS8485 2015+2019 for methane and carbon dioxide.

Monarflex reflex super

PAG SAGR

Welded laps



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MEMBRANE SPECIFICATION:

DESIGN DETAILS:



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VERIFICATION OFFICER:

Tom Dicker

VERIFICATION COMPANY:

GeoShield Limited

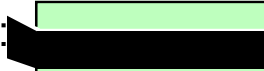
Icon Business Park, 4100 Park Approach

Thorpe Park, LEEDS

West Yorkshire

LS15 8GB

CONTACT NUMBER:



EMAIL ADDRESS:

tdicker@geoshield.com

ORDER NUMBER:

PER VISIT: YES:

☐

NO:

☐

PROJECT: YES:



NO:

☐



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Verification Report



CLIENT DETAILS

CLIENT CONTACT:	Rick Grady
CONTACTS ROLE:	Supervisor
MOBILE PHONE:	
EMAIL ADDRESS:	Rick@pageo.co.uk

CLIENT CONTACT:	
CONTACTS ROLE:	
MOBILE PHONE:	
EMAIL ADDRESS	
NOTES:	
NOTES:	
NOTES:	



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APPLICATION TEAM LEADERS

APPLICATOR NAME: Rick Grady

COMPANY: PAG

APPLICATOR TEL: [REDACTED]

APPLICATOR EMAIL: Rick@pageo.co.uk

APPLICATOR NAME: Matt Evans

COMPANY: PAG

APPLICATOR TEL: [REDACTED]

APPLICATOR EMAIL: [REDACTED]

NOTES: [REDACTED]

NOTES: [REDACTED]

NOTES: [REDACTED]

NOTES: [REDACTED]



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AREA SURVEYED: Block D

SITE CONDITIONS:

WEATHER: Overcast

TEMPERATURE: 15c

MEMBRANE TEMPERATURE:

RELATIVE HUMIDITY:

TIME: 09.00

REPORT NUMBER: 003

DATE: 23 July 3020

ACCOMPANIED RickGrady PAG

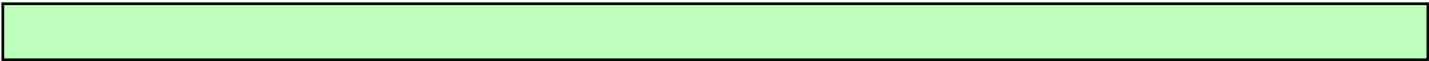
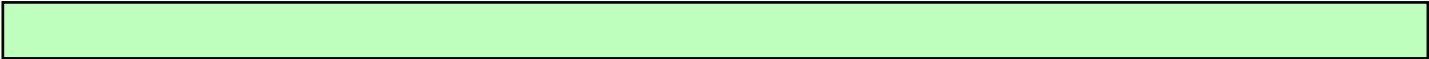


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VERIFICATION LAYOUT

Click to set image

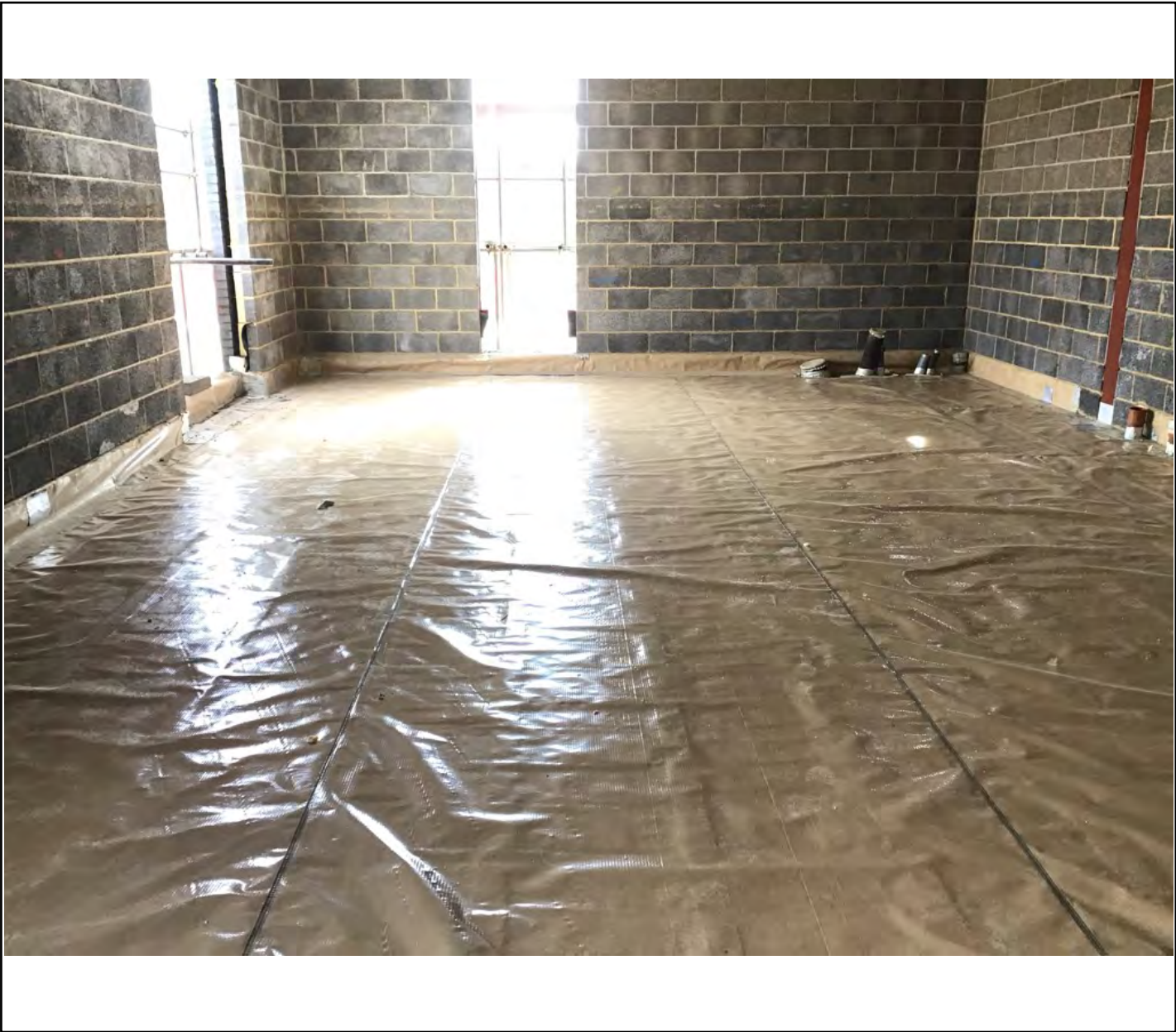




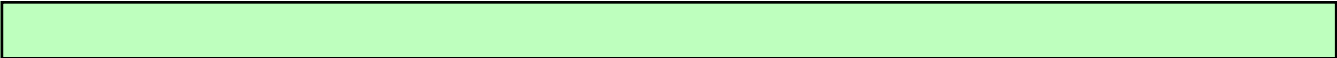
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OVERVIEW PHOTOGRAPHS



Picture 1 shows the Overview of the verification area





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OVERVIEW PHOTOGRAPHS



Picture above shows an alternative angle of the overview area.



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LIMITATIONS

SURVEY AREA:

RESTRICTIONS AND LIMITATIONS:

Click to set image



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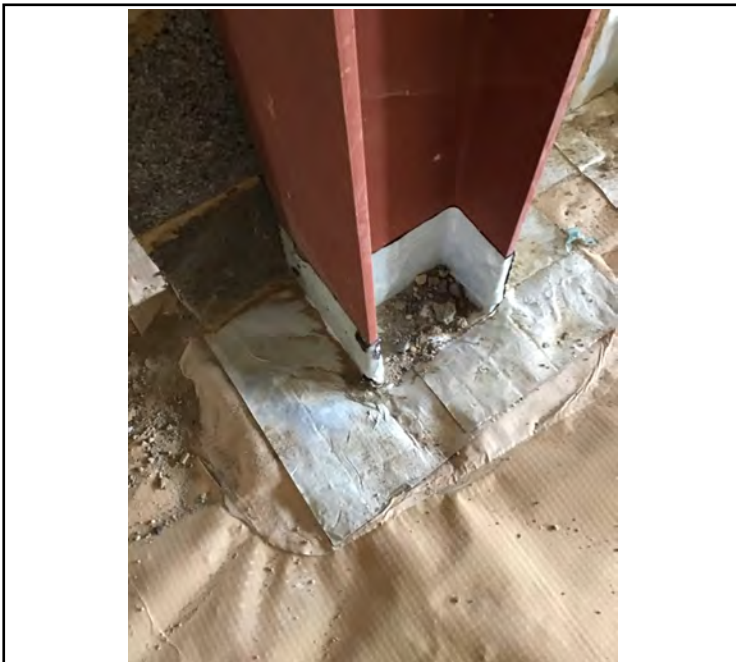


VERIFICATION ITEM ONE

LOCATION/GRID LINE: Corner details.

NOTES: The picture below and left shows an example of an column

corner detail of which has been applied monarflex membrane and sealed using a heat gun to butyl tape. The seal has been applied according to manufacturers specification.



The picture above, right, demonstrates the verification of the corner detail with the

pick and probe testing device. Verification completed in accordance with CIRIA 735.

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VERIFICATION ITEM ONE



The picture above shows an example of a completed corner detail. The membrane is sealed with a butyl tape and is adequately sealed against the perimeter using a heated weld. Any defects found were remedied on site and can be found in remedy log below.



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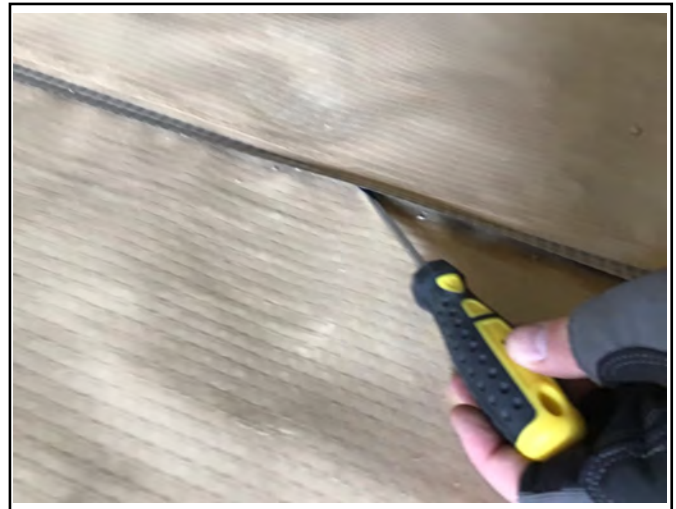


VERIFICATION ITEM TWO

LOCATION/GRID LINE: Block. D

NOTES: Infill membrane/lap joints

The below photo shows the pick and probe investigation take place on the lap detailing of the internal Monoflex membrane. The lap is satisfactory and the seal has been correctly completed to a high standard.



As visible in the right hand photo, the application has occurred to a high standard and complied with BS8485 and CIRIA 735. All lap details have the correct amount of overlap which ensures a tight seal. The seal was completed using a heat roller and the whole block was verified in accordance with CIRIA 735.

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VERIFICATION ITEM TWO



The above picture shows multiple finished lap joints on the infill monarflex membrane.

As you can see in the photograph above, there was a substantial space requiring covering and it was important to lap at a high standard, which the installers achieved.



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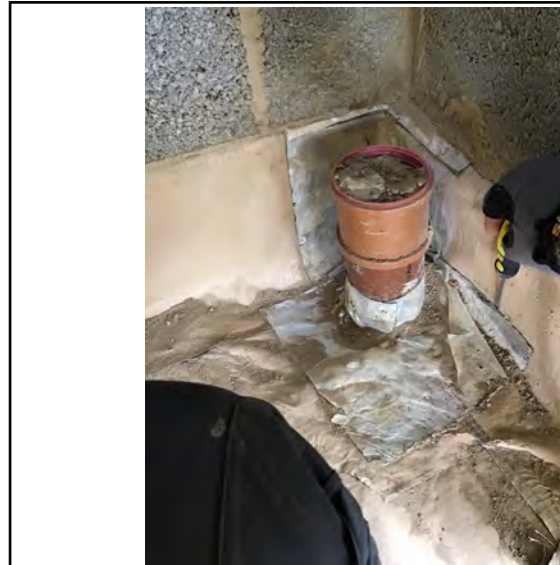
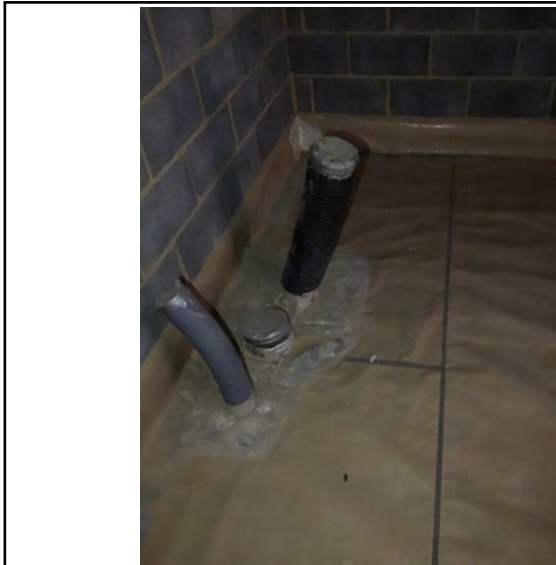
VERIFICATION ITEM THREE

LOCATION/GRID LINE: Block B - pipe penetration

NOTES: The below photographs show complex pipe penetration

details which require a high level of workmanship. The left photo shows a variety

of pipe penetration details which were well sealed and gas protected by the installers.



The photo above and right show the verification officer completed a pick and probe

test in order to correctly inspect the patch of heat welded tape, there were defects

found and documented all of which can be found further on in this report.

No outstanding defects were left by the installers and a high work ethic was achieved.

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BGA
British Geomembrane Association



VERIFICATION ITEM THREE



The above photograph shows a complicated corner pipe penetration.

This detail was completed by the installers and tested in accordance with

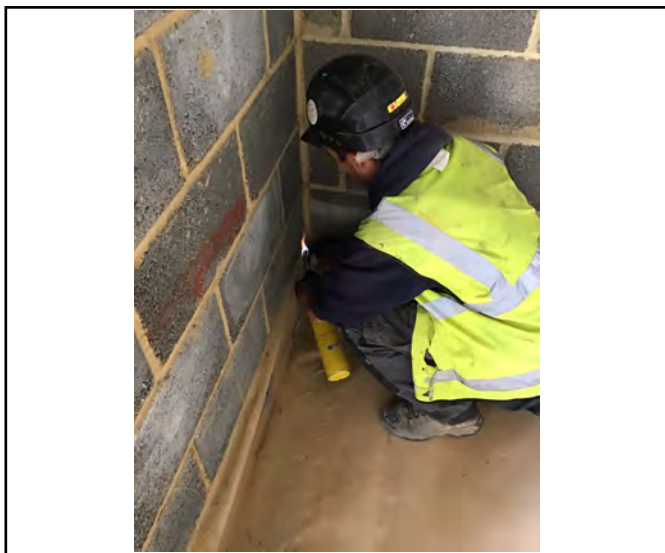
CIRIA 735 and BS8485.



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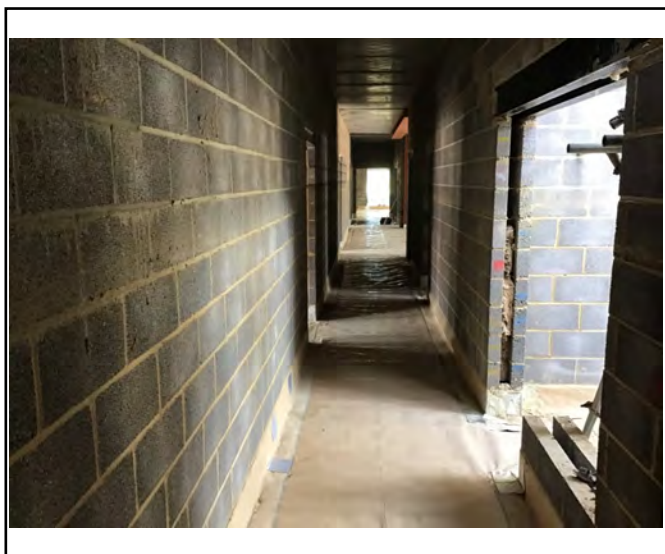
ADDITIONAL PHOTOGRAPHS



The above photo shows the installer
correctly making good a defect



This shows that adequate seal
has been achieved



An overview of corridor showing
the monoflex installation



The end result of a remediation
carried out by the installers.

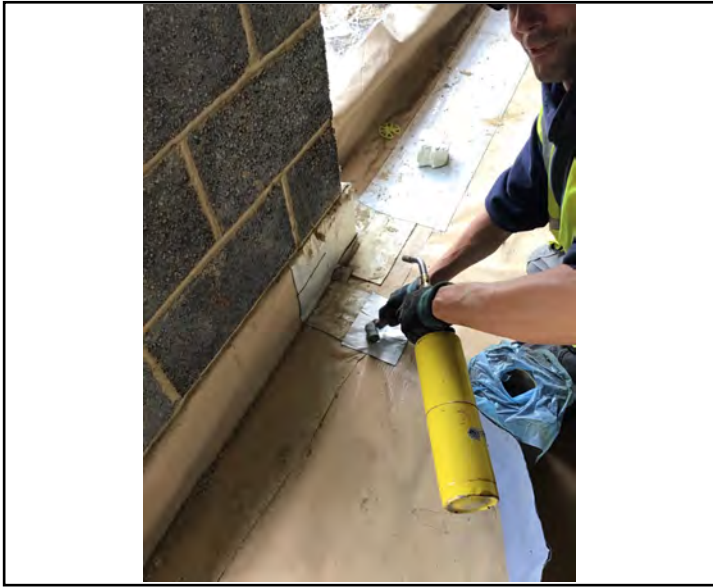


GEOSHIELD

Verification Report



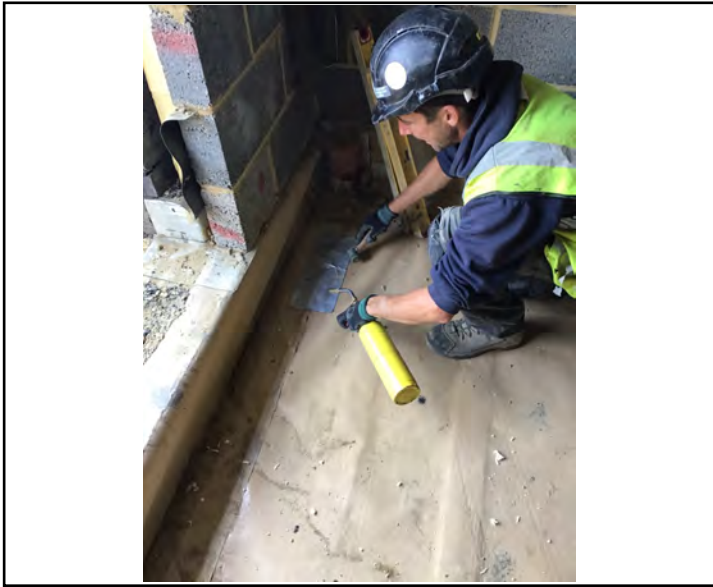
REMEDIATION LOG PHOTOS



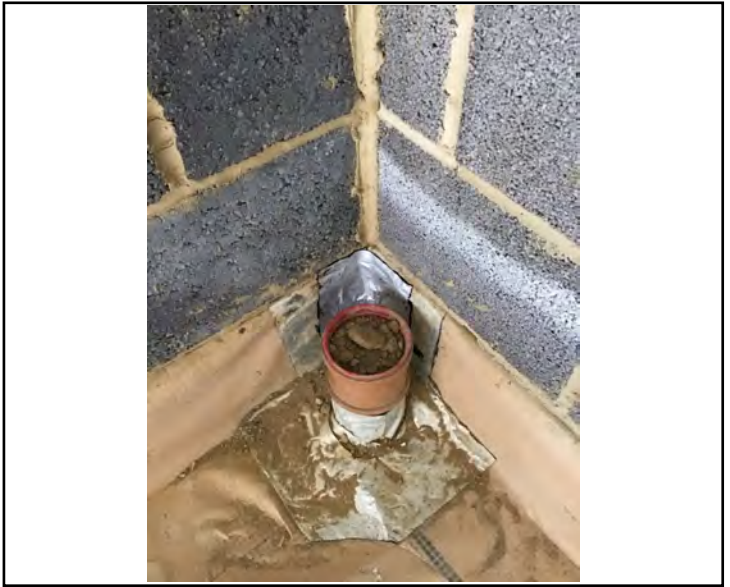
LOG Nr:		YES		NO	
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LOG Nr:		YES		NO	
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LOG Nr:		YES		NO	
---------	--	-----	--	----	--



LOG Nr:		YES		NO	✓
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VERIFICATION SUMMARY

This was my 3rd visit to site. I was shown around Block B by installers Matt and Rick who were both very happy to promptly make good any defects found upon my investigation. The main damage was to the perimeter details of which were primarily caused by subsequent trades instead of poor workmanship. There were no remediations left outstanding. All of the membrane installed by the team was of a high standard and all seams were well applied. The pipe penetration details were expertly produced and no defects were found.

The monoflex membrane was correctly applied by heat weld tape which ensures adequate protection against ground gas.

All installation measures were completed as per the manufacturers specification.

All testing completed in accordance with CIRIA 735 and the BS8485 2015+2019



GEOSHIELD Verification Report



PROJECT REFERENCE:

High wood (PAG) 3835 001

REPORT NUMBER:

001

REPORT DATE:

17/03/2020

PROJECT:

Highwood care home

PROJECT ADDRESS:

Stoneham Lane

Eastleigh

SO 50 9HT

MEMBRANE SPECIFICATION:

Gas membrane to specification BS8485 2015

Installed to CIRIA 735



GEOSHIELD

Verification Report



MEMBRANE SPECIFICATION:

DESIGN DETAILS:

190516 - BN049 - KKL - 00 - DR - A - 200



GEOSHIELD Verification Report



VERIFICATION OFFICER: John Turnbull

VERIFICATION COMPANY: GeoShield Limited

Icon Business Park, 4100 Park Approach

Thorpe Park, LEEDS

West Yorkshire

LS15 8GB

CONTACT NUMBER:

EMAIL ADDRESS:

jturnbull@geoshield.co.uk

ORDER NUMBER:

PER VISIT: YES:

☐

NO:

☐

PROJECT: YES:

☒

NO:

☐



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CLIENT DETAILS

CLIENT CONTACT:	Clare PAG
CONTACTS ROLE:	
MOBILE PHONE:	
EMAIL ADDRESS:	clare@pageo.co.uk

CLIENT CONTACT:	
CONTACTS ROLE:	
MOBILE PHONE:	
EMAIL ADDRESS	
NOTES:	
NOTES:	
NOTES:	



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APPLICATION TEAM LEADERS

APPLICATOR NAME: Russell Clifford

COMPANY: PAG

APPLICATOR TEL: [REDACTED]

APPLICATOR EMAIL: [REDACTED]

APPLICATOR NAME: [REDACTED]

COMPANY: [REDACTED]

APPLICATOR TEL: [REDACTED]

APPLICATOR EMAIL: [REDACTED]

NOTES: [REDACTED]

NOTES: [REDACTED]

NOTES: [REDACTED]

NOTES: [REDACTED]



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AREA SURVEYED: Blocks B/D perimeter

SITE CONDITIONS:

WEATHER: Fine/dry

TEMPERATURE: 12c

MEMBRANE TEMPERATURE:

RELATIVE HUMIDITY: Low

TIME: 11.00 - 12.00

REPORT NUMBER: 001

DATE: 17/03/2020

ACCOMPANIED J Woods



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OVERVIEW PHOTOGRAPHS



Overview of Area that has been Installed

Block B

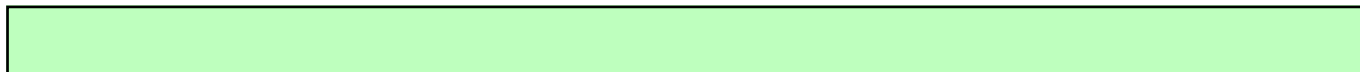


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OVERVIEW PHOTOGRAPHS

Click to set image





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VERIFICATION ITEM ONE

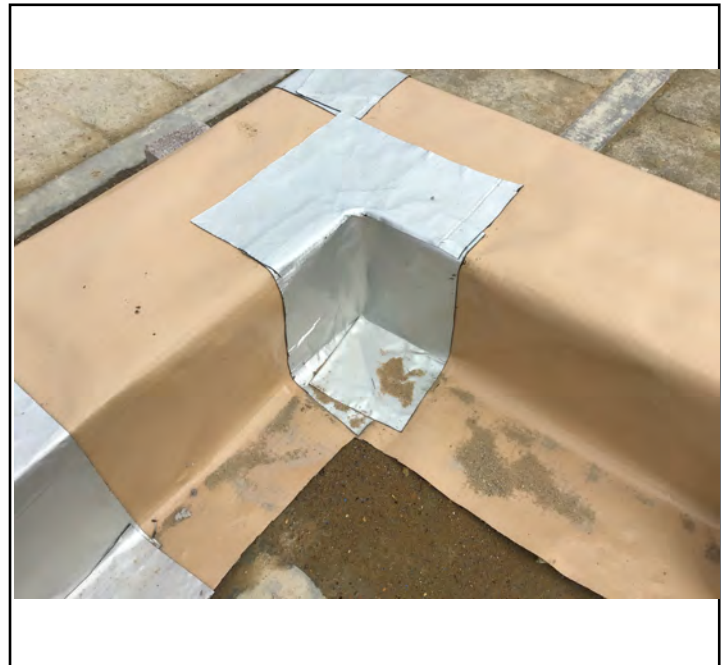
LOCATION/GRID LINE: Blocks B /D

NOTES: Upstand detailing

These two photos are close ups showing the upstand detailing

The left photo is showing the external corners

The right hand photo is showing an internal corner



These have been very well sealed using detailing tape which has been heated

and rolled to remove air bubbles and aid adherence to the membrane

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VERIFICATION ITEM ONE



This photo is a larger overview showing more of the membrane installation

Both the perimeter walls and internal walls have been extremely well sealed

Visually inspected and pick and probe tested



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VERIFICATION ITEM TWO

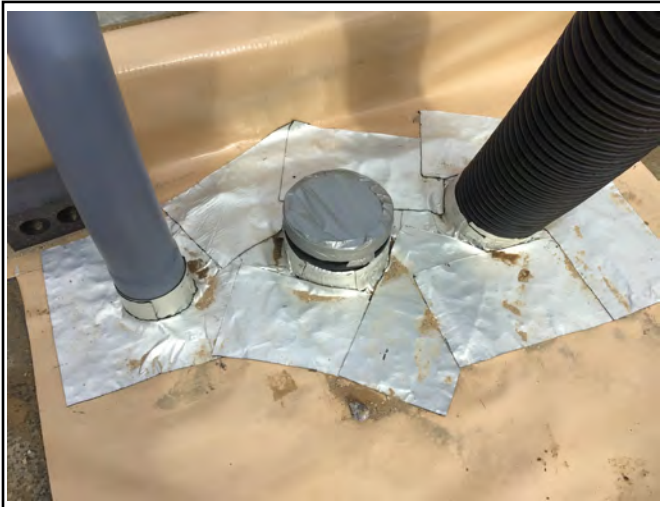
LOCATION/GRID LINE: Blocks B/D

NOTES: Pipe penetrations

These two photos are close ups showing the pipe penetrations

These have once again been very well sealed to the membrane using

detailing tape, heated and rolled to remove air bubbles and aid adherence



All the pipe penetrations have been visually inspected and pick and
probe tested

This is a very good standard of installation and finishing

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VERIFICATION ITEM TWO



This photo is a larger overview showing more of the pipe penetrations

Again very well sealed using detailing tape

Visually inspected and pick and probe tested

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VERIFICATION ITEM THREE



Perimeter membrane installation

This photo is a larger overview showing more of the membrane installation

The membrane has been installed across the cavity



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ADDITIONAL PHOTOGRAPHS



Membrane installation

ahead of the internal walls



Alternative overview of the membrane

Installation



Detailing around the

Steel columns



More of the steel

columns

[illegible]



GAS MEMBRANE TESTING

VISUAL: ☐ YES ☒ NO ☐ SMOKE TEST: ☐ YES ☐ NO ☐

COMPRESSED AIR: ☐ YES ☐ NO ☒ DILECTIC ☐ YES ☐ NO ☐

DESTRUCTIVE: ☐ YES ☐ NO ☒ OTHER: ☐ YES ☐ NO ☐

Testing checklist attached: ☐ YES ☐ NO ☐

Gridline/Plot Sign off

[illegible]



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VERIFICATION SUMMARY

This was the first visit to this site

I was escorted by the site manager (J Woods)

The reason for this visit is to inspect the perimeter membrane installation

of both blocks B /D

The standard of installation work was extremely good

All pipe penetrations have been very well sealed

All the welded joints are finished well

Gas membrane to specification BS8485 2015

Installed to CIRIA 735

All the work has been installed to the manufacturers spec

APPENDIX X
V10 – SUPPORTING EVIDENCE

M.A.C CONTRACTING LTD

BULK EXCAVATION & RECYCLING

M.A.C

- Specialists in Muck Away
- Tipper Haulage and Plant Hire
- Suppliers of Road Planings
- Hardcore & Recycled Aggregates

M.A.C. Contracting Ltd.
Somborne Chalk Quarry, Kings Somborne,
Stockbridge SO20 6QR

Tel: 02476 641 771

Email: info@maccontracting.co.uk

Mobile: 07968 499 124

Waste Carrier Licence: CB/DU82366

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by regulation 12 of the Waste (England and Wales) Regulations 2011

www.maccontracting.co.uk

Required by Schedule 5 Part 2 of the Weights and Measures Act 1963. Subject to Conditions of Sale (available on request)

Name of Buyer

Carlton C.E

SITE (Address of Place of Loading)

Stoneham
Eastlish

Conveyance and
Transfer No.

30916

Date

6-4-21

Driver

DAVE

Registration No.

X162MAE

TIP (Address of Place of Delivery)

haver
warren

Signature of Acceptance

Print Name

Print Name:

Volume Carried

Description of Material Carried

Tick

EWG Code

SIC Code

8w

Grab

No. of Loads

Hardcore

170107

43.12

Soil & Stone

170504

43.12

Planings

170302

42.11

Other (specify)

CCAY

LOAD DETAILS

DAYWORK DETAILS

Gross Weight

Travelling Time

Tare Weight

Time On Site

750

Time Off Site

815

Net Weight

Total Time

Site Signature

M.A.C CONTRACTING LTD

BULK EXCAVATION & RECYCLING

M.A.C

- Specialists in Muck Away
- Tipper Haulage and Plant Hire
- Suppliers of Road Planings
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M.A.C. Contracting Ltd.

Somborne Chalk Quarry, Kings Somborne,
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Tel: 02476 641 771

Email: info@maccontracting.co.uk

Mobile: 07968 499 124

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Required by Schedule 5 Part 2 of the Weights and Measures Act 1963. Subject to Conditions of Sale (available on request)

Name of Buyer

Carlton C.E

SITE (Address of Place of Loading)

Stoneham

Conveyance and Transfer No.

25692

Date

6/4/21

Driver

Quentin

Registration No.

FF65MAC

TIP (Address of Place of Delivery)

Hammer Warren
Verwood

Signature of Acceptance

Print Name

Print Name:

Volume Carried

Description of Material Carried

Tick

EWG Code

SIC Code

8w

Grab

No. of Loads

Hardcore

170107

43.12

Soil & Stone

170504

43.12

Planings

170302

42.11

Other (specify)

M/A Clay

✓

LOAD DETAILS

DAYWORK DETAILS

Gross Weight

Travelling Time

Time On Site

8.37

Tare Weight

Time Off Site

Total Time

Net Weight

Site Signature