

WASTE ACCEPTANCE CRITERIA AND WASTE ACCEPTANCE PROCEDURES

Conningbrook Ballast Hole

Prepared for: Brett Aggregates Limited

Client Ref: 416.01009.00228

SLR Ref: 416.01009.00228
Version No: Final v1
December 2019



BASIS OF REPORT

This document has been prepared by SLR Consulting Limited with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with Brett Aggregates Limited (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

CONTENTS

1.0	INTRODUCTION	2
1.1	Terms of Reference.....	2
1.2	Background	2
1.3	Current Planning Status	3
1.4	Future Planning Status and Assumptions Made in this Document	3
2.0	PERMITTED FILL MATERIALS	5
2.1	Introduction	5
2.2	Waste Types.....	5
3.0	WASTE ACCEPTANCE PROCEDURES (WAPS).....	6
3.1	Waste Pre-Acceptance Procedures.....	6
3.2	Basic Characterisation.....	6
3.3	Compliance Testing.....	11
3.4	Visual Assessment.....	11
3.5	Prohibited Wastes.....	11
3.6	Site Control Office and/or Weighbridge.....	11
3.7	Documentation	12
3.8	Records	12
3.9	Communication.....	12
3.10	Site Diary	12
3.11	Non-Conforming Wastes	12

1.0 Introduction

1.1 Terms of Reference

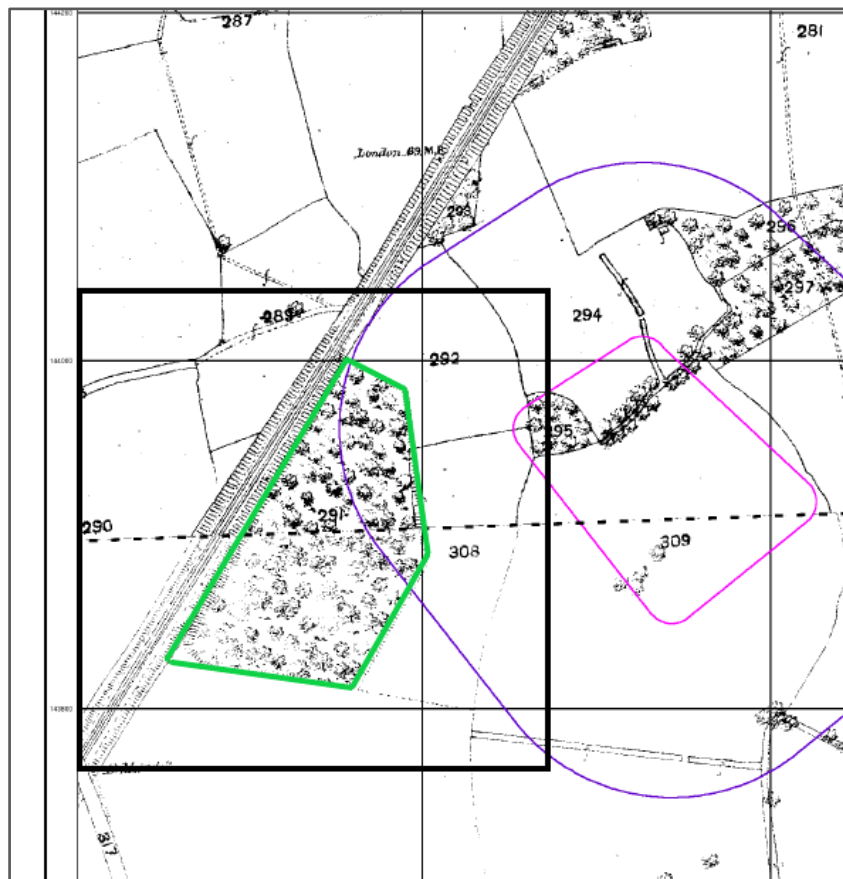
Brett Aggregates Limited (Brett) has instructed SLR Consulting Limited (SLR) to prepare Waste Acceptance Procedures (WAP) and Waste Acceptance Criteria (WAC) for its waste recovery operation at a former 'ballast hole' (arising from the historic removal of sand and gravel) near to the Conningbrook Recycling Facility (Ref: XP3394VP) owned and previously operated by Brett.

It is intended that the content of this document is used by the Operator to determine whether the chemical quality of materials is suitable for acceptance as fill.

1.2 Background

The site currently consists of a ballast hole comprising an area of mature trees within a hollow. As illustrated on Figure 1-1 below, the oldest available historic maps, dating back to 1871, indicate that the ballast hole was a developed feature at this time covered with woodland.

Figure 1-1
Historic Maps 1871



1.3 Current Planning Status

The surrounding area of the site has planning permission, as detailed below, which allows the development of a recreational facility within a country park which will benefit from water and land-based sports alongside walking, cycling and horse-riding trails. As part of this, there is also provision in the current planning permission for 300 residential dwellings (currently under construction).

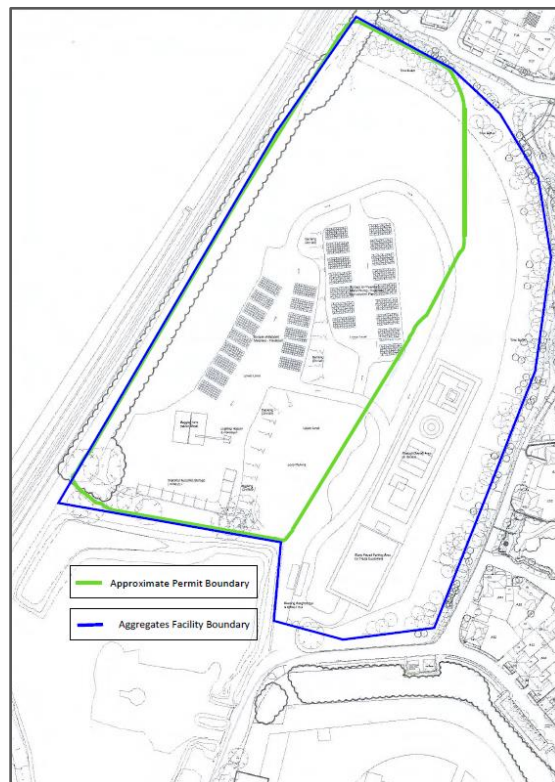
The first phase of the country park opened in September 2015, which included access tracks and public rights of way, water sports facilities and ecological conservation areas.

The site is subject to the following wider planning permission issued by Ashford Borough Council under reference number 12/01245/AS and approved on 24th October 2014:

“Creation of a country park for recreational and water-sports purposes with a range of associated facilities including an activity centre, a public house/restaurant, change of use of Manor to offices, car parks and other ancillary works and structures including works to the Julie Rose Stadium; construction of 300 dwelling residential development with associated infrastructure and landscaping; and provision of an aggregates storage and distribution facility”.

Therefore, currently the site discussed in this document benefits from an approved planning permission for an aggregates storage and distribution facility as illustrated in Figure 1-2 below.

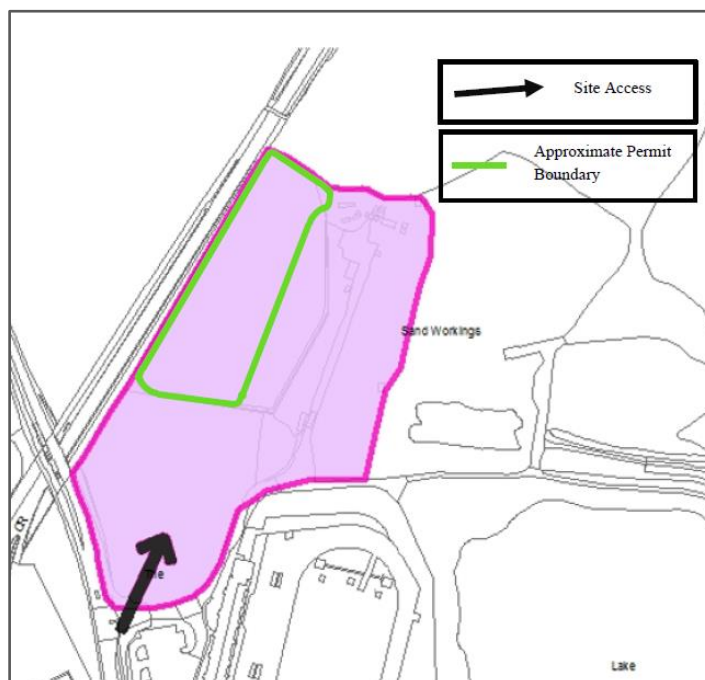
Figure 1-2
WRP Permit Boundary in Relation to Current Aggregates Facility



1.4 Future Planning Status and Assumptions Made in this Document

The draft allocation for housing contained within the Ashford Borough Council Local Plan 2030 includes the ballast hole and surrounding area as being suitable for future housing development as shown in Figure 1-3 below.

Figure 1-3
WRP Permit Boundary in Relation to Residential Area



Planning permission is likely to be gained for a housing development in the area subject to waste recovery operations by mid-2020.

To summarise, the ballast hole currently holds a planning permission for an aggregate facility. The area surrounding the ballast hole holds planning permission for a wide range of different uses and residential properties (which are currently under construction). The ballast hole is also included in a wider plan for additional residential properties, for which planning permission will be applied for in the next 2 years.

Given all of the above a decision has been made to base WAC (i.e. the actual quality criteria for imported wastes to be recovered) on the actual likely land use of the site in the future. In this case that means basing WAC on conservative Generic Assessment Criteria for a given land use. This approach was detailed in the approved Waste Recovery Plan (WRP) and is summarised in the sections that follow.

The GACs have been used in preference of inert WAC, which are best placed for use in waste acceptance of wastes to landfill, rather than for being used as development-specific assessment criteria. Use of inert WACs to assess soils in a new residential development is unlikely to be agreeable to the Planning Authority for example.

The use of GACs as import criteria is a conservative approach and means that Brett will need to source soils and soily material that will be fit for purpose in a commercial and/or residential setting. To do so Brett proposes to import material from a very few sources (and possibly only one source) in order that quality can be guaranteed. There is, for example, no intention to open the site as a commercial waste recovery site on a single road wagon basis. Rather, the intention is to identify and classify larger volumes of material that will then become an approved source of material in accordance with the sections below. This will reduce risks associated with non-conforming waste.

2.0 Permitted Fill Materials

2.1 Introduction

Where waste materials are used as fill material they must comply with the permitted waste types detailed in the sections below. All materials to be used on site will comply with the necessary Permits, and Earthworks Specification to be prepared in accordance with Volume 1 of the Specification for Highway Works, Section 612 Method Compaction published by the Highways Agency, and the materials/criteria contained within this document.

Notwithstanding the chemical suitability of the material imported, and as detailed in the sections that follow, in general terms it can be stated that:

Materials to be recovered and used as general fill will be classed as granular or cohesive. In general, engineered fill to raise the ground levels will be constructed using Class 1, Class 2 and Class 3 General Fill and shall comply with the requirements of Specification for Highway Works (SHW) Table 6/1 and Table 6/2.

The following list of materials is therefore proposed as fill material at Conningbrook Ballast Hole:

- **Class 1 A-C: General Granular Fill;**
- **Class 2 B-D: General Cohesive Fill; and**
- **Class 3 Chalk.**

2.2 Waste Types

The proposed waste types for acceptance, and as submitted in the approved Waste Recovery Plan (WRP), are summarised in Table 2-1 below.

**Table 2-1
Conningbrook Ballast Hole Permitted Waste Types**

Waste	Code Description
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 09	Other construction and demolition wastes
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION / INDUSTRIAL WASTE
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

3.0 Waste Acceptance Procedures (WAPs)

The WAPs set out below reflect the fact that only limited waste types from limited sources will be considered for input to the site. They also reflect the fact that all waste will require testing to confirm suitability in a residential setting.

3.1 Waste Pre-Acceptance Procedures

The decision to accept waste will be taken before any load has reached the site. Prior to delivery waste producers will be asked to supply the necessary information to allow a decision to be made whether the waste can be accepted at the site. As a minimum this will involve completion of a Waste Enquiry Form.

Pre-acceptance approval will aim to:

- Reduce the incidence of unauthorised waste arriving at the site; and
- Minimise delays in processing paperwork at the site control office.

The waste producers will be required to provide information including the following prior to a decision on whether to accept waste:

- Address of the source of the waste;
- Description of the waste;
- List of Waste (LoW) code of the waste;
- Site details;
- Current site use;
- Previous site use;
- Estimated volume; and
- Whether the waste has been treated.

If the waste is deemed acceptable it will become an 'approved source'. A list of 'approved sources' will be maintained on site and will be available for inspection at any time.

If waste arrives at the site before a decision has been taken that it can be accepted the material will not be unloaded until such a time as the above information can be presented.

3.2 Basic Characterisation

Basic characterisation will be undertaken for all waste materials proposed to be accepted to the site. Basic Characterisation comprises a comprehensive data gathering exercise on behalf of the waste producer. In particular the following information will be produced where relevant and plausible:

- Source and origin of waste;
- Waste production process;
- Waste treatment carried out (or reasons for not treating);
- Composition of the waste, assessment of the likely behaviour of the waste in the site;
- Appearance, smell, consistency, form of waste;
- LoW code;

- Hazardous properties if relevant;
- Whether the waste can be recycled or recovered; and
- For process wastes – an assessment of the likely variability and proposed compliance testing regime.

In practical terms the above will comprise at least a desk-based exercise to verify the nature of any likely contamination. In most (possibly all) cases, an initial round of soils analysis (either a site investigation report or results of stockpile testing), supported by a desk-based study, will also be required.

Materials accepted to the site under the Environmental Permit will be required to meet the GAC set out in Tables 3-1 below.

It should be noted that the generic risk assessment criteria are drawn from several sources of guidance, some from non-statutory guidance and some informal. SLR uses a combination of assessment criteria that are currently available to assist in the screening of soil data prior to acceptance, and with regard to the potentially sensitive residential use of the site in the future. The following assessment criteria have been used to derive acceptance criteria for the site:

- Soil Guideline Values – since March 2002, the Department for Environment, Food and Rural Affairs (Defra) and the Environment Agency have been involved in publishing a series of reports that provide a scientifically based framework for the assessment of risks to human health from land contamination.
- LQM/CIEH Generic Assessment Criteria (GAC) – Land Quality Management and the Chartered Institute of Environmental Health have published GACs derived following CLR technical guidance and using the Environment Agency's CLEA UK model.
- LQM/CIEH Suitable for Use Levels (S4ULs) – in 2015 Land Quality Management and the Chartered Institute of Environmental Health have published S4ULs derived following CLEA technical guidance and using the Environment Agency's CLEA UK model, with updated toxicological and exposure parameters and land uses following the publication of the draft C4SLs.
- SLR's own in-house screening criteria derived following CLR technical guidance using the CLEA UK model;
- CLAIRE / AGS / EIC Generic Assessment Criteria (GAC) – these institutions have published publicly available GACs derived following CLR technical guidance and using the Environment Agency's CLEA UK model.
- Category 4 Screening Levels (DEFRA).

The SGVs and GAC have been developed as a guide for regulators and developers; if the concentrations recorded on site are lower than the SGV / GAC it is generally accepted that the contaminants in question are present at acceptable concentrations which aren't capable of putting human health at significant risk - as long as the humans make normal use of the site. An exceedance of these values indicates to an assessor that soil contaminant concentrations need to be considered further. In this case this simply means the material in question will not be accepted to the site. SGV / GACs combine both authoritative science and policy judgements.

The SGVs, GAC and S4ULs / C4SLs used have been derived using the CLEA model according to several typical land uses:

- Residential (with and without vegetable growth);
- Allotments;
- Commercial/Industrial;
- Public Open Space residential (POS1); and
- Public Open space park (POS2).

As the site has planning permission for a commercial end use and has the potential to be developed for residential purposes in the future, the selected GAC for the site should reflect both a commercial and a residential with vegetable growth (worst case) end use. To achieve this SLR has set separate import criteria for materials to be placed above and below 600mm. In practical terms this means:

1. Soils placed deeper than 600m below finished levels will be better than suitable for the interim commercial use of the site and will be set in line with a residential use, but without the plant uptake pathway.
2. Additionally, soils placed deeper than 600mm must not have a total organic carbon (TOC) above 3%.
3. Soils placed in the top 600mm will be suitable for a longer-term residential use (including the vegetable uptake pathway).
4. Soils in the top 600m will have additional restrictions for contaminants such as asbestos but will have no restrictions in terms of TOC (because typically the top 1.0m of a residential will be topsoil).

In most cases a minimum of 3 no. samples will be submitted prior to acceptance of the waste. Following this initial characterisation testing, re-testing will be carried out if it is suspected that the nature and chemical characteristics of the waste has changed.

Table 3-1 summarises the proposed WAC for the site based on the above discussion.

Table 3-1
Waste Acceptance Criteria – Waste for Recovery Above and Below 600mm

Chemical	Source (S4UL)	Soils placed <600mm BFL (mg/kg)	Soils placed >600mm BFL (mg/kg)
BTEX			
Benzene	LQM/CIEH (2015) ref S4UL3276	0.087	0.38
Toluene	LQM/CIEH (2015) ref S4UL3276	130	880
Ethyl Benzene	LQM/CIEH (2015) ref S4UL3276	47	83
m Xylene	LQM/CIEH (2015) ref S4UL3276	59	82
p Xylene	LQM/CIEH (2015) ref S4UL3276	56	79
o Xylene	LQM/CIEH (2015) ref S4UL3276	60	88
Petroleum Hydrocarbons (PHC)			
Aliphatics C5-C6	LQM/CIEH (2015) ref S4UL3276	42	42
Aliphatics >C6-C8	LQM/CIEH (2015) ref S4UL3276	100	100

Chemical	Source (S4UL)	Soils placed <600mm BFL (mg/kg)	Soils placed >600mm BFL (mg/kg)
Aliphatics >C8-C10	LQM/CIEH (2015) ref S4UL3276	27	27
Aliphatics >C10-C12	LQM/CIEH (2015) ref S4UL3276	130	130
Aliphatics >C12-C16	LQM/CIEH (2015) ref S4UL3276	1100	1100
Aliphatics EC >16-35	LQM/CIEH (2015) ref S4UL3276	65000	65000
Aliphatics EC35-44	LQM/CIEH (2015) ref S4UL3276	65000	65000
Aromatic EC5-7 (benzene)	LQM/CIEH (2015) ref S4UL3276	70	370
Aromatic EC7-8 (toluene)	LQM/CIEH (2015) ref S4UL3276	130	860
Aromatics >EC8-EC10	LQM/CIEH (2015) ref S4UL3276	34	47
Aromatics >EC10-EC12	LQM/CIEH (2015) ref S4UL3276	74	250
Aromatics >EC12-EC16	LQM/CIEH (2015) ref S4UL3276	140	1800
Aromatics >EC16-EC21	LQM/CIEH (2015) ref S4UL3276	260	1900
Aromatics >EC21-EC35	LQM/CIEH (2015) ref S4UL3276	1100	1900
Aromatics >EC35-EC44	LQM/CIEH (2015) ref S4UL3276	1100	1900
Aliphatic & Aromatics >EC44-EC70	LQM/CIEH (2015) ref S4UL3276	1600	1900
PAHs			
Acenaphthene	LQM/CIEH (2015) ref S4UL3276	210	3000
Acenaphthylene	LQM/CIEH (2015) ref S4UL3276	170	2900
Anthracene	LQM/CIEH (2015) ref S4UL3276	2400	31000
Benzo(a)anthracene	LQM/CIEH (2015) ref S4UL3276	7.2	11
Benzo(a)pyrene	LQM/CIEH (2015) ref S4UL3276	2.2	3.2
Benzo(b)fluoranthene	LQM/CIEH (2015) ref S4UL3276	2.6	3.9

Chemical	Source (S4UL)	Soils placed <600mm BFL (mg/kg)	Soils placed >600mm BFL (mg/kg)
Benzo(ghi)perylene	LQM/CIEH (2015) ref S4UL3276	320	360
Benzo(k)fluoranthene	LQM/CIEH (2015) ref S4UL3276	77	110
Chrysene	LQM/CIEH (2015) ref S4UL3276	15	30
Dibenzo(ah)anthracene	LQM/CIEH (2015) ref S4UL3276	0.24	0.31
Fluoranthene	LQM/CIEH (2015) ref S4UL3276	280	1500
Fluorene	LQM/CIEH (2015) ref S4UL3276	170	2800
Indeno(123-cd)pyrene	LQM/CIEH (2015) ref S4UL3276	27	45
Naphthalene	LQM/CIEH (2015) ref S4UL3276	2.3	2.3
Phenanthrene	LQM/CIEH (2015) ref S4UL3276	95	1300
Pyrene	LQM/CIEH (2015) ref S4UL3276	620	3700
Heavy Metals			
Arsenic	LQM/CIEH (2015) ref S4UL3276	37	40
Cadmium	LQM/CIEH (2015) ref S4UL3276	11	85
Chromium (III)	LQM/CIEH (2015) ref S4UL3276	910	6
Copper	LQM/CIEH (2015) ref S4UL3276	2400	910
Lead	LQM/CIEH (2015) ref S4UL3276	-	7100
Mercury	LQM/CIEH (2015) ref S4UL3276	40	-
Nickel	LQM/CIEH (2015) ref S4UL3276	180	56
Selenium	LQM/CIEH (2015) ref S4UL3276	250	1.2
Zinc	LQM/CIEH (2015) ref S4UL3276	3700	180
Boron	LQM/CIEH (2015) ref S4UL3276	290	430

Notes:

1. BFL = below finished level
2. In addition to the above all material must be free from visible asbestos
3. Any material placed within the top 600mm of soils will not contain asbestos above a detection limit of 0.001%
4. Any material placed below 600mm should not have a TOC content exceeding 3%

3.3 Compliance Testing

In addition to the basic characterisation testing undertaken on wastes prior to acceptance at the site, periodic compliance testing will be undertaken in some cases.

Situations in which Compliance Testing will be required include when Basic Characterisation is based on site investigation and the material has subsequently been removed from the ground, mixed and stockpiled. Where the Waste Producer can prove the following, Compliance Testing may not be required:

- That basic characterisation is sufficient to characterise the waste;
- That no significant physical or chemical alteration has taken place since basic characterisation; and
- That the material was stockpiled prior to basic characterisation.

Where the Operator has undertaken Compliance Testing the samples will be retained for at least one month and the results of the analysis for the lifetime of the environmental permit.

3.4 Visual Assessment

This level of compliance will be undertaken at the site itself. As waste materials arrive at the site they will be assessed against the information provided at the Basic Characterisation stage.

Visual inspection will take place as follows:

- At the weighbridge/waste reception area prior to unloading;
- During any temporary stockpiling; and
- During placement of the waste as fill.

Waste materials may be rejected if they differ from the physical description of the waste (from both the Waste Enquiry Form and site investigation data) or if visual evidence of significant contamination is identified (e.g. discoloured/odorous soils or evidence of asbestos containing materials).

Waste materials for use as engineered fill will also be rejected if they are considered to contain inclusions that could render the material unsuitable for the works. In particular visual inspections will be undertaken at the weighbridge/reception and at the point the waste is placed. Any waste containing nonincidental amounts of materials such as wood, plastic, metal, glass, tree roots, rubber etc will be rejected from the works.

3.5 Prohibited Wastes

Any wastes that are not listed in Table 2-1, that do not meet the criteria and specifications identified in Table 3-1 or contain evidence of significant contamination (e.g. asbestos) or inclusions (see Section 3.4) will not be permitted for acceptance and recovery at the site.

3.6 Site Control Office and/or Weighbridge

All waste entering the facility will be required to report to the site control office and weighbridge.

The site control office will be manned during all operational hours by a site control operative/clerk who will be responsible for the following activities:

- Initial vetting and where possible visual inspection of all waste entering the facility;
- Examination and maintenance of documentation accompanying each load; and
- For the recording of waste quantities and other pertinent details.

3.7 Documentation

All waste accepted at the facility will be accompanied by a waste transfer note as required by the Duty of Care Regulations, which will provide the following details:

- Waste description including appropriate waste classification code;
- Waste origin;
- Transferor and transferee; and
- Signature of transferor and transferee.

This documentation will be checked before waste materials are permitted to be accepted at the site. For all waste materials a receipt will be supplied to the person delivering the waste to the site.

3.8 Records

A register of the quantities and characteristics of waste accepted at the site will be maintained. The database will include the following details:

- Origin of the waste;
- Date of delivery;
- Waste quantity;
- Waste description and classification code; and
- Waste producer and/or carrier.

A record will also be maintained of all waste that is removed from the facility.

The above records will be held at the offices of Brett Aggregates Limited for a period of at least six years from the date the records were made.

3.9 Communication

The operatives at the active operational areas of the site will be in contact with the site control office. This will enable instructions to be given regarding individual loads of waste and ensure appropriate precautions are taken during the disposal process.

3.10 Site Diary

The site diary will be used to record any incidents that occur during the waste acceptance, discharge and emplacement process, including action taken in relation to unauthorised waste.

3.11 Non-Conforming Wastes

Where obviously non-conforming loads are identified during visual inspection and discharge, they will be immediately assessed in terms of suitability for placement in the works and rejected where this is not deemed appropriate.

Where there is uncertainty regarding the conformity of a load or where the vehicle has already left the site, a designated quarantine area will be provided. The quarantine area will be located adjacent to the operational site area, where any suspected non-conforming loads are identified following discharge will be isolated pending further investigations and/or treatment.

Suspected non-conforming loads will then be subjected to further inspection or testing. Once these results are known the material will be either used on site or if proved unsuitable removed from site to the site of origin or other permitted facility.

All issues pertaining to non-conforming waste will be reported immediately to the Producer of the waste and records of rejected loads kept on site for inspection.

EUROPEAN OFFICES

United Kingdom

AYLESBURY

T: +44 (0)1844 337380

BELFAST

T: +44 (0)28 9073 2493

BRADFORD-ON-AVON

T: +44 (0)1225 309400

BRISTOL

T: +44 (0)117 906 4280

CAMBRIDGE

T: + 44 (0)1223 813805

CARDIFF

T: +44 (0)29 2049 1010

CHELMSFORD

T: +44 (0)1245 392170

EDINBURGH

T: +44 (0)131 335 6830

EXETER

T: + 44 (0)1392 490152

GLASGOW

T: +44 (0)141 353 5037

GUILDFORD

T: +44 (0)1483 889800

LEEDS

T: +44 (0)113 258 0650

LONDON

T: +44 (0)203 691 5810

MAIDSTONE

T: +44 (0)1622 609242

MANCHESTER

T: +44 (0)161 872 7564

NEWCASTLE UPON TYNE

T: +44 (0)191 261 1966

NOTTINGHAM

T: +44 (0)115 964 7280

SHEFFIELD

T: +44 (0)114 245 5153

SHREWSBURY

T: +44 (0)1743 23 9250

STAFFORD

T: +44 (0)1785 241755

STIRLING

T: +44 (0)1786 239900

WORCESTER

T: +44 (0)1905 751310

Ireland

DUBLIN

T: + 353 (0)1 296 4667

France

GRENOBLE

T: +33 (0)4 76 70 93 41